

# Oregon Department of Environmental Quality April 15-16, 2015 Oregon Environmental Quality Commission meeting Rulemaking, Action Item

Air quality permitting, Heat Smart and gasoline dispensing facility updates

#### DEQ recommendation to the EQC

DEQ recommends that the Environmental Quality Commission:

- 1. Adopt the proposed rules in attachments A1 through A4 as part of chapter 340 of the Oregon Administrative Rules.
- 2. Find that certain rules adopted as attachments A1 through A4 are more strict than existing Lane Regional Air Protection Agency rules, as described in attachment B, and direct Lane Regional Air Protection Agency to implement such state rules until it adopts its own rules that are equivalent or more strict and submits them to the Environmental Quality Commission under ORS 468A.135.
- 3. Approve incorporating the rule amendments adopted as attachments A1 through A4 and the rule implementation directive to LRAPA described in attachment B into the Oregon Clean Air Act State Implementation Plan under OAR 340-200-0040 (the "SIP revision").
- 4. Direct DEQ to submit the SIP revision to the U.S. Environmental Protection Agency for approval.

#### **Overview**

#### Short summary

DEQ proposes to streamline, reorganize and update Oregon's air quality permit rules. The Source Sampling Manual Volumes I and II and Continuous Monitoring Manual are part of the proposed rules.

DEQ also proposes changes to statewide particulate matter emission standards and the preconstruction permitting program. The changes would help Oregon comply with the U.S. Environmental Protection Agency's ambient air quality standard for fine particulates, commonly called PM<sub>2.5</sub> and protect air quality through Oregon's permitting programs.

In addition, DEQ proposes rules to:

- Remove certain greenhouse gas permitting requirements to align with the June 23, 2014 Supreme Court decision,
- Expand preconstruction permitting flexibility for small facilities,
- Allow DEQ to use technology such as teleconferencing for public meetings to improve community outreach, and

- Improve program implementation by proposing minor amendments to:
  - o The woodstove replacement program called Heat Smart, and
  - o The gasoline dispensing facility rules.

The first bullet above is substantially similar to the temporary rules that the Oregon Environmental Quality Commission adopted in November 2014. The temporary rules, effective Nov. 12, 2014, through May 10, 2015, removed the greenhouse gas permitting requirements to align with the Supreme Court decision.

This document describes the proposed rules under the following nine categories:

- 1. Clarify and update air quality rules
- 2. Update particulate matter emission standards
- 3. Change permitting requirements for emergency generators and small natural gas or oil-fired equipment
- 4. Establish two new state air quality area designations, "sustainment" and "reattainment," to help areas avoid and more quickly end a federal nonattainment designation
- 5. Designate Lakeview as a state sustainment area while retaining its federal attainment designation
- 6. Change the New Source Review preconstruction permitting program
- 7. Modernize methods allowed for holding public hearings and meetings
- 8. Re-establish the Heat Smart woodstove replacement program exemption for small commercial solid fuel boilers regulated under the permitting program
- 9. Remove annual reporting requirements for small gasoline dispensing facilities

DEQ proposes the Environmental Quality Commission approve the proposed rules for incorporation into Oregon's State Implementation Plan. With EQC's approval, DEQ would submit the proposed rules to the U. S. Environmental Protection Agency to be included in revisions to the State Implementation Plan required under the Clean Air Act. Please see attachment A5 for DEQ's <a href="mailto:crosswalk of rules changes">crosswalk of rules changes</a>, including the rules in the State Implementation Plan, for details.

#### Regulated parties

The proposed rules affect:

- All businesses, agencies, local governments and other entities holding air quality permits;
- Businesses and other entities required to submit construction approval notices;
- Businesses and other entities that sell small solid fuel boilers; and
- Businesses and other entities that dispense less than 10,000 gallons of gasoline a month.

#### Request for other options

During the public comment period, DEQ requested public comment on whether to consider other options for achieving the rules' substantive goals while reducing negative economic impact of

the rule on business. This document includes a summary of comments and DEQ responses and explains how DEQ changed the proposed rules in response to comment.

DEQ requested public comment on the ability of owners and operators of equipment to meet the proposed particulate standards, specifically the proposed grain loading and opacity standards.

Since DEQ is clarifying that state rules apply to Lane Regional Air Protection Agency unless they adopt their own rules, DEQ also requested public comment on which existing LRAPA rules are equivalent to or more strict than DEQ's proposed rules to ensure that LRAPA is authorized and required to implement in Lane County any new state rules that are more strict than existing LRAPA rules.

Considering recent action by the U.S. Supreme Court, DEQ requested public comment on the applicability of Oregon's Prevention of Significant Deterioration requirements and Title V operating permit program requirements for greenhouse gases. On June 23, 2014, the U.S. Supreme Court invalidated portions of the U.S. Environmental Protection Agency's greenhouse gas regulations known as the Tailoring Rule. DEQ requested public comment on whether Oregon's rules should be retained as they are, revised to agree with the court's ruling, or revised in other ways.

#### 1. Clarify and update air quality rules

After years of rulemakings and updates, DEQ proposes to clarify, update and reorganize Oregon's air quality rules. Previous improvements to these programs began with EQC's adoption of revisions to point source air management rules in 2001 and air quality permit program streamlining and updates in 2007. The existing rules contain multiple definitions for the same term, missing details, obsolete or outdated rules and rules that do not align with federal rules adopted by the U.S. Environmental Protection Agency, which causes confusion. This proposal would clarify and update the rules to address the needs listed in this table.

What need would the proposed rules address?	How would the proposed rules address the need?
Some important details are missing from the rules, such as specific compliance methods for determining compliance with an emission standard. This creates uncertainty for DEQ and regulated parties implementing the air quality programs.	The proposed rules would incorporate the missing compliance methods and help businesses understand how to comply with the standards.
Some procedures are in definitions rules instead of procedural rules, creating confusion for regulated parties. For example, the procedures to determine a major modification, actual emissions and netting basis are in the definitions rules instead of procedural rules.	The proposed rules would move procedures from definitions rules to procedural rules.
The rules contain different definitions for the same term and definitions are located in multiple divisions, making it difficult for regulated parties to find definitions or know how to apply the definitions.	The proposed rules would move all common definitions to division 200, General Air Pollution Procedures and Definitions. The proposed rules would provide only one definition per term and add definitions for undefined terms such as <i>control efficiency</i> , <i>internal combustion engine</i> and <i>removal efficiency</i> .
Some of the tables in the rules are difficult to find and understand.	The proposed rules change the layout of these tables and move rule language from the tables into the text to make information easier to find and understand. This includes information about significant emission rates, de minimis emission levels, generic Plant Site Emission Limits, significant impact levels and Prevention of Significant Deterioration increments.

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What need would the proposed rules address?	How would the proposed rules address the need?
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#### 1. Clarify and update air quality rules

#### What need would the proposed rules address?

The excess emission rules do not contain all of the sources required to report excess emissions. They also do not contain source specific criteria for determining enforcement action.

The excess emission rules require sources to report excess emissions to DEQ as follows:

 Large sources must report all excess emissions immediately (within one hour of the event)

A "large" source is defined as any Title V source, any source whose emissions are equal to or exceed 100 tons per year of any regulated air pollutant, or which is subject to a National Emissions Standard for Hazardous Air Pollutants.

 Small sources must notify DEQ immediately only of excess emissions events that could endanger public health.

A "small" source means any other stationary source with a basic, general, simple or standard Air Contaminant Discharge Permit. In the definition of "small" sources in the excess emission rules, DEQ inadvertently did not include sources that are on basic permits.

Since EQC's initial adoption of the excess emission rules, EPA adopted NESHAPs for many smaller sources, such as gas stations, hospital ethylene oxide sterilizers, and dry cleaners. These sources are missing from DEQ's rules, creating conflict between DEQ's rules and federal law.

The general provisions for NESHAP sources and some individual NESHAPs include excess emission reporting; therefore, DEQ's rules do not need to include these small sources with the large sources that are required to report excess emissions immediately.

#### How would the proposed rules address the need?

The proposed rules would add omitted sources required to report excess emissions and add the criteria for determining whether to take enforcement action for excess emissions, including

- Whether any federal New Source
  Performance Standard or National Emission
  Standard for Hazardous Air Pollutants apply
  and whether the excess emission event
  caused a violation of the federal standard;
  and
- Whether the excess emissions event was due to an emergency.

#### 1. Clarify and update air quality rules

#### What need would the proposed rules address?

How would the proposed rules address the need?

Source-specific technology-based standards such as federal New Source Performance Standards and NESHAPs consider the achievable emissions of a facility that uses best demonstrated technology. Adding this criterion when determining whether to take enforcement action for excess emissions allows DEQ to recognize that while a source may violate the general statewide standard, the source is still complying with the source-specific technology-based standard.

The excess emission rules allow affirmative defense in incorrect circumstances. Affirmative defense is the ability to avoid civil penalties for violations. On Feb. 12, 2013, EPA proposed a new rule limiting the circumstances in which sources could claim affirmative defenses, and clarifying how such provisions may apply under Title V permits versus other permits under the SIP. Under EPA's interpretation, DEQ's excess emissions rules incorrectly allow all permitted sources to assert an affirmative defense, rather than just Title V sources.

Portions of the Source Sampling Manual Volumes I and II and the Continuous Monitoring Manual are no longer current, which creates problems for DEQ staff and regulated parties implementing the manuals. DEQ last updated the manuals in 1992.

In addition, DEQ proposes to limit affirmative defenses to Title V permitted sources only and not sources that are regulated under the State Implementation Plan.

The proposed rules update the Source Sampling Manual Volumes I and II and the Continuous Monitoring Manual.

DEQ extensively revised the Source Sampling Manual Volume I to incorporate revised EPA methods for measuring fine particulate matter and other changes to sampling and monitoring methods made since 1992. The manual addresses air emissions source sampling practices and procedures for sampling projects conducted within the State of Oregon.

DEQ also extensively revised the Continuous Monitoring Manual to address:

- Continuous Emission Monitoring Systems;
- Continuous Parameter Monitoring Systems;
- Continuous Opacity Monitoring Systems;
- Federal monitoring requirements pertaining to NSPS, NESHAP, and Acid Rain programs; and .

Clarify and update air quality rules	
What need would the proposed rules address?	How would the proposed rules address the need?
	<ul> <li>DEQ specific monitoring requirements</li> <li>Revisions to the Continuous Monitoring Manual primarily concern:         <ul> <li>Commercial operations that are required to install and operate Continuous Monitoring Systems;</li> <li>Contractors that audit or certify Continuous Monitoring Systems; and</li> <li>Venders who sell or design Continuous Monitoring Systems.</li> </ul> </li> <li>The manuals are part of the proposed rules in this rulemaking package.</li> </ul>
The Lane Regional Air Protection Agency's authority is unclear in some rules. LRAPA implements Oregon's air quality permitting programs in Lane County.	The proposed rules clarify LRAPA's authority in rules that LRAPA implements in Lane County. LRAPA generally must implement DEQ rules unless it adopts its own rules that are at least as strict as DEQ rules.

DEQ proposes more stringent particulate matter standards to help prevent violations of the federal fine particulate standard.

Like many other states, Oregon adopted statewide particulate matter standards in 1970 as part of Oregon's initial State Implementation Plan. Since 1970, health researchers have concluded that exposure to particulate pollution is more harmful than previously indicated. As a result, EPA lowered the ambient air quality standard for particulates from 260 micrograms per cubic meter; it established separate standards, including a coarse particulates standard at 150 micrograms per cubic meter and a fine particulates standard at 35 micrograms per cubic meter.

EPA designates areas that violate air quality standards as nonattainment areas and designates all other areas as attainment or unclassified areas. With EPA's adoption of the fine particulate ambient air quality standard in 2011, Klamath Falls and Oakridge are now designated as nonattainment areas for fine particulate. Lakeview also violates the standard, but was not designated nonattainment because its data was not available at the time EPA designated Klamath Falls and Oakridge. Numerous other areas in Oregon are only slightly below the standard. More stringent state particulate matter standards may help prevent additional violations of the federal fine particulate standard in the future, especially if EPA continues to lower the standard.

Oregon's initial State Implementation Plan included less protective emission standards for

businesses that were in operation in 1970; these are known as grandfathered businesses. However, emissions from grandfathered businesses subject to the particulate matter standards do not adequately protect air quality. Routine exposure to air pollution at these levels can cause significant adverse health impacts to sensitive individuals.

In addition, emissions from these businesses can create barriers to economic development in the community. If a single business consumes the majority of an airshed's acceptable pollution levels, other businesses may not be able to expand and new businesses may not be able to come into the area. Work on the Klamath Falls fine particulate attainment plan showed when the background particulate matter concentration is added to a business's impacts, the impacts from a single grandfathered business could consume a significant portion of the available airshed. DEQ found similar results when analyzing emissions from a grandfathered business near Lakeview.

DEQ relies on two types of general standards to control emissions from permitted sources of particulate matter such as dust or smoke. One type of standard sets concentration-based emission limits as mass per unit volume of exhaust gas. A second type of standard, referred to as a visible emissions standard, limits the maximum visual density, or opacity, of a plume. Existing rules include different particulate concentration and opacity standards for units installed before or after 1970:

Pre-1970 unit 0.2 grain/dry standard cubic foot (gr/dscf) and 40 percent opacity

Post-1970 unit 0.1 gr/dscf and 20 percent opacity

#### What need would the proposed rules address?

Particulate matter emissions put Oregon areas at risk of exceeding ambient air quality standards and being designated as nonattainment areas by EPA. Once EPA designates an area as nonattainment for fine particulate emission, DEQ and the local government must develop and implement a federally approved attainment plan, which is costly to all involved and can require severe restrictions for businesses that want to build or expand in these areas. Attainment plans for fine particulate nonattainment areas typically include stringent regulations to reduce emissions from existing and new industry, residences and commercial establishments. An example of the type of restrictions imposed on businesses are in the rules adopted for the Medford/Ashland air quality maintenance area PM<sub>10</sub> attainment plan under OAR 340-240-0100 through 340-240-0250.

#### How would the proposed rules address the need?

Reducing emissions from grandfathered businesses before areas exceed ambient air quality standards and are designated as nonattainment areas helps Oregon avoid the costs of developing and implementing attainment plans. This would also help avoid severe restrictions for businesses that want to build or expand in these areas.

The proposed rules would affect both the statewide particulate matter and opacity standards for grandfathered units built before June 1970 by phasing in a requirement for these businesses to meet lower standards based on typically available control technology, such as multiclones.

The particulate matter standard for all businesses (both pre- and post-1970) that are currently emitting less than 0.080 grains per dry standard cubic foot will be reduced to 0.10 gr/dscf from 0.2 gr/dscf and 0.1 gr/dscf, respectively. Under current rules, businesses are required to operate at their highest and best practicable treatment and control of air contaminant so as to maintain overall air quality at

What need would the proposed rules address?

the highest possible levels, and to maintain pollution at the lowest possible levels. Therefore, businesses that are operating at levels much lower than existing standards must continue to do so. Pre-1970 businesses will be required to meet 0.15 gr/dscf rather than 0.2 gr/dscf. Post-1970 businesses will be required to meet 0.14 gr/dscf. The standard for equipment or modes of operation that are used less than 876 hours per year remains at 0.20 gr/dscf.

The opacity standard would be reduced for all businesses to 20 percent with the following exceptions:

- 40 percent during 12 minutes in an hour; and
- 40 percent during grate cleaning operations for wood fired boilers.

The proposal would allow a five-year transition period, ending no later than Jan. 1, 2020, but includes an opportunity for a one-year extension, if necessary.

The proposed rules provide an option to request a source-specific limit if boiler or multiclone optimization does not result in emissions low enough to meet the revised standards. This would ensure the proposed rules would not require any business to replace a boiler or convert to fossil fuel.

DEQ's rules conflict with federal guidance. Oregon's current particulate matter standards have only one significant figure (e.g., 0.1 gr/dscf) whereas EPA expects all standards to have two significant figures (e.g., 0.10 gr/dscf) when comparing measured emissions data to the standards.

The proposed rules add a significant figure to all particulate matter standards to align with the EPA guidance that standards have two significant figures. The intent of the proposed rules is to ensure that Oregon's particulate standards are consistent with current EPA policy for significant figures when determining compliance with standards.

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DEQ's rules do not contain a reference method necessary to demonstrate compliance with opacity standards.

Oregon based its first adopted opacity standard on an aggregate of three minutes in a 60-minute period. However, Oregon didn't develop a reference test method for the three-minute aggregate limit. As a The proposed rules would help ensure Oregon businesses use a reliable and defined method to measure compliance with statewide opacity standards that are consistent with EPA and other states' methods.

The proposed rules would amend all opacity standards, both statewide and industry specific, to a

What need would the proposed rules address?

workaround to demonstrate compliance with this standard, Oregon businesses used a modified version of EPA's Method 9 reference test method; however, this workaround is inconsistent with EPA and other states' methods. In addition, current rules for the four-county area around Portland include a 20 percent opacity standard that is an aggregate of 30 seconds in a 60-minute period for non-fuel burning equipment such as material handling equipment. However, just like the statewide standard, Oregon didn't develop a reference method for the 30-second aggregate limit.

Not having reference methods for these opacity standards makes it difficult for businesses to demonstrate compliance with the standards, and creates difficulty for DEQ to assure compliance with and enforce the standards.

DEQ needs a different method for addressing opacity from fugitive emission sources. DEQ and businesses currently use EPA Method 9 to determine compliance with opacity standards and ensure fugitive emissions are not causing a nuisance, but this method isn't specific for fugitive sources. Fugitive particulate matter emissions are not emitted from a smoke stack and typically originate from storage piles, material conveying systems, unpaved roads or other dusty activities. In many situations, it is possible to take opacity readings to determine if the emitting source exceeded the opacity standard and then require action to abate the emissions. However, in other situations, opacity readings are difficult to take or the emissions do not exceed the opacity standard, but are nevertheless objectionable to surrounding neighbors. Therefore, rules are needed to control fugitive emissions from leaving a business's property, regardless of their opacity.

six-minute block average except for the recovery furnace opacity limit that remains the same. This six-minute block average is consistent with other states in the region and EPA and is compatible with EPA's Method 9 reference test method. DEQ does not expect this to change the overall stringency of the standards.

The proposed rules would repeal the 20 percent opacity standard for the four-county area around Portland to eliminate the difficulty of complying with or enforcing the standard. Equipment in the four-county area would be subject to the statewide opacity standard. The 30 second visible emissions standard in OAR 340-208-0600 is more stringent than the current statewide standard, but the rule has limited applicability in the four counties. More importantly, emissions standards are only enforceable if there are defined reference methods for determining compliance.

The proposed rules would require businesses to take reasonable precautions to prevent fugitive emissions. DEQ may request a business develop and implement a fugitive emissions control plan to prevent visible emissions from leaving the property for more than 18 seconds in a six minute period. This is a simpler, more comprehensive and effective approach to controlling these emissions than the current approach that requires DEQ to make a nuisance determination outside of special control areas. DEQ and businesses would use EPA Method 22, Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares to determine compliance. Method 22 is specific for fugitive sources, making it a much better method for determining compliance than Method 9.

### 3. Change permitting requirements for emergency generators and small natural gas or oil-fired equipment

Federal law requires Title V permits to account for emissions from all activities at a regulated facility,

### 3. Change permitting requirements for emergency generators and small natural gas or oil-fired equipment

including insignificant activities that do not warrant the kind of effort applied to the main emitting activities. When Oregon established the Title V permitting program in 1993, DEQ developed a list of "categorically insignificant activities" that may take place at a source but are not addressed individually in the permit. This list includes activities such as:

- Janitorial activities
- Groundskeeping activities
- Emergency generators

Businesses indicate they have categorically insignificant activities in their permit applications, but these activities are exempt from rigorous monitoring requirements because DEQ determined emissions from these activities are insignificant compared to other activities onsite.

#### What need would the proposed rules address?

EPA recently adopted National Emission Standards for Hazardous Air Pollutants for stationary reciprocating internal combustion engines. EPA's adoption added requirements for emergency generators currently exempt from permitting in Oregon because DEQ lists them as categorically insignificant activities. In addition, the growing need for large amounts of backup power from emergency generators at data centers has shown that emissions from emergency generators can be significant.

DEQ also determined that small fuel burning equipment, currently listed as categorically insignificant because each unit has low emissions, could have significant aggregate emissions if a business has multiple units. For example, DEQ identified one business that has eight small boilers that together have significant potential emissions of approximately 12 tons per year of nitrogen oxides.

#### How would the proposed rules address the need?

The proposed rules would remove emergency generators and small natural gas or oil-fired equipment from the list of categorically insignificant activities if:

- Those units are above size thresholds that make them subject to emission limits, or
- Their aggregate emissions are greater than de minimis levels.

DEQ would add these activities to existing permits.

In cases where emissions from a non-permitted business with these activities exceed permitting thresholds, the non-permitted business might need to obtain a permit for these activities alone. If the aggregate emissions are less than permitting thresholds, the owner or operator may only need to obtain preconstruction approval from DEQ when installing new units and not a permit.

## 4. Establish two new state air quality area designations, "sustainment" and "reattainment," to help areas avoid and more quickly end a federal nonattainment designation

EPA designates areas that violate air quality standards as "nonattainment" areas and designates all other areas as "attainment" or "unclassified" areas. Oregon law designates former nonattainment areas that EPA reclassified to attainment as "maintenance" areas to ensure those areas avoid future violations. DEQ proposes to establish two new Oregon air quality area designations, "sustainment" and "reattainment," to help areas avoid and more quickly end a federal nonattainment designation. If

## 4. Establish two new state air quality area designations, "sustainment" and "reattainment," to help areas avoid and more quickly end a federal nonattainment designation

EQC approves these proposed rules, it would be able to designate specific areas of the state as "sustainment" or "reattainment" based on a local air quality analysis and public comment. To designate a specific area as "sustainment" or "reattainment" would require public notice and a rule change. These designations would provide communities and businesses with additional tools and incentives to improve air quality. Please view DEQ's <u>Lakeview Sustainment Area</u> document for supplemental information about the sustainment area designation.

#### What need would the proposed rules address?

There are gaps in the current designation system, described in the next two sections, that can create disincentives for affected communities to improve air quality and unnecessarily impede economic development. While EPA does not establish designations for these areas, there is a need for Oregon to establish designations to help these areas avoid and more quickly end a federal nonattainment designation.

#### How would the proposed rules address the need?

The proposed rules would establish two new designations with different permitting requirements for companies proposing a new or modified facility in areas that are close to or violating air quality standards:

- Sustainment area for a federally designated attainment area that is in danger of failing to meet air quality standards and which EPA has not yet designated a nonattainment area.
- Reattainment area for a federally designated nonattainment area that is meeting air quality standards and which EPA has not yet redesignated an attainment area

EQC would designate specific areas of the state as sustainment or reattainment based on a local air quality analysis, DEQ recommendations and public comment. These classifications would provide communities and businesses with additional tools and incentives to improve air quality, as described below.

Communities are not provided sufficient opportunities to avoid nonattainment designation.

This first gap in area designations is for attainment areas where the air quality is in danger of failing to meet air quality standards. While air pollution in these areas can cause health effects, new or modified businesses are not necessarily the sources that contribute to the problem. However, air pollution levels in the area make it difficult or impossible for new and expanding businesses to

Establishing *sustainment* areas would provide communities more opportunities to avoid nonattainment designation.

The proposed rules would allow DEQ to work with the local community to determine if a state sustainment designation would be the best approach to improve air quality and prevent a nonattainment designation. DEQ would identify potential sustainment areas based on an air quality analysis that may include monitoring, development of an

## 4. Establish two new state air quality area designations, "sustainment" and "reattainment," to help areas avoid and more quickly end a federal nonattainment designation

What need would the proposed rules address?

How would the proposed rules address the need?

demonstrate that their added emissions will not cause or contribute to air quality violations. The current permitting rules for attainment areas do not include provisions for these businesses to offset their emission increases by a reduction in emissions from existing sources in the area. Designating these areas as nonattainment areas may be appropriate in some cases. However, in other cases, a nonattainment designation could impose prescriptive federal requirements and timelines that interfere with the more effective local efforts to improve air quality.

emission inventory, and air quality modeling. The analysis would identify the air pollution sources that primarily contribute to public health concerns, and a boundary for the potential sustainment area. Upon approval by the local community, DEQ would then propose the sustainment designation for public comment through its rulemaking process.

An EQC-designated sustainment area would remain a federal attainment area and new and modified facilities above the federal major source threshold would continue to be subject to federal attainment area requirements. However, the proposed rules for sustainment areas would address industrial source emissions below federal major source thresholds that the community could rely upon as part of an overall plan, such as EPA's PM Advance program, for improving the ambient air quality. Within a sustainment area, new and modified facilities would receive incentives to obtain emission offsets from those existing air pollution sources that are identified as the primary cause of degraded air quality in the sustainment area under category six below (Change the New Source Review preconstruction permitting program). An area designated as a sustainment area could still become a federal nonattainment if air quality continued to degrade.

Communities designated as nonattainment areas must continue to require costly elements of an attainment plan when those elements are no longer necessary to protect air quality.

This second gap in area designations is for nonattainment areas that have met federal ambient air quality standards by implementing an approved attainment plan. For these areas to be designated as federal attainment areas and state maintenance areas, DEQ must develop and EPA must approve a long-term air quality maintenance plan. In developing the maintenance plan, DEQ may

Establishing *reattainment* areas would allow communities to discontinue costly elements of an attainment plan when those elements are no longer necessary to protect air quality.

The proposed rules would allow DEQ to propose to EQC a state reattainment designation for a federal nonattainment area with an approved attainment plan where air quality reliably meets the federal ambient air quality standards. The potential for a reattainment area designation would create an incentive for a community to improve air quality as quickly as possible. The boundary for the reattainment area would be the same as the

## 4. Establish two new state air quality area designations, "sustainment" and "reattainment," to help areas avoid and more quickly end a federal nonattainment designation

#### What need would the proposed rules address?

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determine that some elements of the attainment plan are no longer required to maintain air quality. However, until EPA redesignates the area to attainment – a process that can take years – the area must continue implementing all elements of the attainment plan.

nonattainment area boundary.

An EQC designated reattainment area would remain a federal nonattainment area. All elements of the area's attainment plan would continue to apply until EPA approves a maintenance plan and redesignates the area to attainment. However, within the reattainment area, new and modified facilities that fall below the federal major source threshold would be subject to less stringent requirements unless DEQ has identified the facility as a significant contributor to the air quality problems in the area under category six below (Change the New Source Review preconstruction permitting program).

### 5. Designate Lakeview as a state sustainment area while retaining its federal attainment designation

Air quality in Lakeview currently does not meet the ambient air quality standards for fine particulates. However, EPA has not yet designated Lakeview a nonattainment area because Lakeview was not exceeding the standard at the time EPA made its designations throughout the United States. Oregon did not have the required three years of monitoring data to determine if the area was violating the federal standards.

Please view DEQ's <u>Lakeview Sustainment Area</u> document for supplemental information about the designation for Lakeview.

#### What need would the proposed rules address?

#### How would the proposed rules address the need?

Lakeview's status as violating the federal air quality standard without a nonattainment designation has created problems in permitting new and modified facilities. The construction approval process for attainment and unclassified areas includes an analysis that a new or expanding major pollution source will not cause or contribute to a violation of air quality standards. However, meeting this test is not possible for an area that already violates the standards. This, in effect, prevents DEQ from approving construction permits for new and expanding facilities in Lakeview.

The proposed rules would designate Lakeview as a state sustainment area proposed under category four above. While Lakeview would retain its federal designation as an attainment area, a state designation of sustainment would help the community in its efforts to improve air quality by:

- Providing more flexible permitting requirements for non-federal major emission sources and
- Avoiding a federal nonattainment designation.

The Lakeview Sustainment Area document includes DEQ's technical analysis to identify the boundary

### 5. Designate Lakeview as a state sustainment area while retaining its federal attainment designation

sustainment area.

What need would the proposed rules address?

How would the proposed rules address the need?

and primary sources of air pollution in the proposed

Designating Lakeview as a nonattainment area would preclude the community's active voluntary efforts to meet federal air quality standards under the PM Advance program.

The Lakeview community voluntarily participates in EPA's "PM Advance" program to develop an air quality improvement and prevention plan. Local officials expect to bring the area quickly back into attainment with the standard to avoid a federal nonattainment designation and the resulting impacts on costs for businesses seeking to locate there. DEQ assists the community with technical analysis and administrative support for the PM Advance planning process.

The PM Advance plan that Lakeview is currently developing outside the rulemaking process will address all PM<sub>2.5</sub> emission sources, including residential wood stoves and open burning. DEQ determined that the PM Advance plan and designation as a sustainment area would complement each other to address stationary sources within the Lakeview area.

Under the sustainment area designation, new and expanding businesses that do not exceed the federal major source threshold for particulate matter could be permitted by obtaining offsets under category six below (Change the New Source Review preconstruction permitting program). As an incentive, the offset requirement would be lowered for businesses that obtain offsets from residential wood heating, which is the primary cause of air quality violations in Lakeview.

#### 6. Change the New Source Review preconstruction permitting program

DEQ proposes changes to the New Source Review program to improve air quality in all areas of the state, especially those that are close to or exceed ambient air quality standards. New Source Review is a federally required preconstruction program that ensures new or modified facilities install the latest control technologies and do not have adverse impacts on ambient air quality standards. The intent of the Prevention of Significant Deterioration portion of the New Source Review program is to prevent degradation of air quality in areas that meet federal air quality standards. The intent of the nonattainment New Source Review program is to improve the air quality in designated nonattainment areas that violate

#### 6. Change the New Source Review preconstruction permitting program

air quality standards. DEQ's proposal would also establish New Source Review requirements for the proposed new sustainment and reattainment area designations described in category four above.

On June 23, 2014, the U.S. Supreme Court determined that the Clean Air Act neither compels nor permits EPA to adopt rules requiring a facility to obtain a Title V or Prevention of Significant Deterioration permit on the sole basis of its potential greenhouse gas emissions. Oregon's rules were not affected by the Supreme Court's decision and remain in effect, requiring facilities to submit applications that are not required by the now-invalid federal greenhouse gas permitting rules. The Court did not completely invalidate EPA's authority to require permitting for greenhouse gases; it determined that EPA reasonably interpreted the Clean Air Act to require facilities to comply with Prevention of Significant Deterioration permitting requirements for greenhouse gases if they were required to apply for a Prevention of Significant Deterioration permit based on emissions of other regulated pollutants.

Please view DEQ's <u>NSR Program Supplemental Discussion</u> for supplemental information about these changes.

#### What need would the proposed rules address?

The current New Source Review program rules apply to facilities that emit more than the federal major source threshold and to some facilities that emit less. Federal law requires states to have both a major and a minor New Source Review program. The requirements for the federal major New Source Review program are very prescriptive. States have more flexibility in designing a state minor New Source Review program if the state demonstrates that it will protect air quality. Oregon's current requirements for major and minor New Source Review are the same. This limits DEQ's ability to use the minor New Source Review program in the most effective way to protect air quality while enabling economic development.

#### How would the proposed rules address the need?

The proposed rules for new and modified facilities would distinguish facilities above the federal major source threshold from facilities below the threshold. To do this, the proposed rules would:

- Establish a minor New Source Review program for smaller facilities called "State New Source Review."
- Tailor New Source Review requirements for smaller facilities to the air quality needs of an area in ways that are not allowed for larger businesses subject to EPA requirements.

What need would the proposed rules address?

#### 6. Change the New Source Review preconstruction permitting program

Current criteria for determining if a major new or modified facility would improve air quality in or near a nonattainment or maintenance area are known as Net Air Quality Benefit. Problems with the criteria include:

- Based solely on air quality modeling,
- Sometimes impossible for businesses to meet, unless the increasing and offsetting businesses are co-located,
- Prevent potentially more beneficial local air pollution reduction projects from occurring, thereby creating an unnecessary construction ban, and
- Require new or modified businesses to reduce emissions from other existing businesses and demonstrate that together the emission increases and reductions result in improved air quality at most modeled receptors within the area.

The proposed rules would establish a new process for companies proposing a new or modified facility in or near a nonattainment, sustainment or maintenance area. The proposal provides a simplified modeling demonstration that requires emission offsets to be greater than emission increases. The offset ratio would depend on:

- The area classification, and
- Whether the new or modified source of emissions is a federal major source or minor source.

The proposed rules would provide incentives for new or modified businesses to help address ambient air quality problems. The incentives would reduce the emission-offset ratio if the business obtains reductions from priority sources, those that primarily cause air quality problems in the local area. In addition, the proposed rules would ensure no degradation of air quality in relation to the ambient monitoring for the area.

The current New Source Review program rules allow extensions of construction permits for good cause. The rules do not include criteria for approving or denying extensions of construction permits or the number of extensions allowed.

Allowing construction permits to be extended multiple times without limit or additional review could:

- Tie up the business's designated allowable emissions portion of the airshed indefinitely,
- Result in the installation of less effective control technology if control technology has improved since the approval of the original construction permit, and
- Unnecessarily impair air quality.

In 2011, EQC adopted rules substantively identical to the federal greenhouse gas permitting rules. The 2014 Supreme Court decision invalidated EPA's

The proposed rules provide two 18-month extensions and procedures for requesting and approving extensions for New Source Review construction permits:

- For the first extension, the proposed rules would require a review of any new pollution control technologies that could be applied to the proposed source.
- For the second extension, the proposed rules would require a review of the pollution control technology and a review of the impacts on the ambient air quality in the area.

The proposed rules would address the need by removing certain Oregon greenhouse gas permitting requirements to align with the 2014

What need would the proposed rules address?

#### 6. Change the New Source Review preconstruction permitting program

authority to impose the federal greenhouse gas permitting requirements. Oregon's rules continue to require Prevention of Significant Deterioration and Title V permits for greenhouse gases alone, causing inequity for facilities located in Oregon.

U.S. Supreme Court decision.

#### 7. Modernize methods allowed for holding public hearings and meetings

DEQ is committed to public engagement and staying current with emerging and innovative ways to reach people and hold hearings. This proposal would make it easier and more cost effective for DEQ to hold, and people to participate in, permit actions and public hearings. Current rules require DEQ to hold informational meetings on the most complex permit actions and public hearings.

#### What need would the proposed rules address?

The existing rules are very prescriptive regarding how DEQ holds public hearings and meetings for air quality permits. These rules, first adopted by Oregon in 1974, do not allow for technological advances like Internet-based virtual meetings in lieu of statewide travel. Having staff travel to local hearings and meetings around the state can be resource intensive and wasteful if no one attends to present comments or gather information.

#### How would the proposed rules address the need?

The proposed rules would make it easier and more cost-effective for DEQ to hold and people to participate in public hearings and meetings by removing the prescriptive language from the rules. For example, with the option to hold Internet-based virtual meetings, DEQ could hold more meetings across the state using fewer resources. In addition, after DEQ has established the necessary technology, it would have the option to allow people to call in to hearings and meetings from any location instead of requiring people to travel to the hearing or meeting.

### 8. Re-establish Heat Smart woodstove replacement program exemption for small commercial solid fuel boilers regulated under the permitting program

DEQ proposes revisions to residential wood heating rules to remedy the inadvertent prohibition of selling small commercial biomass boilers in Oregon. DEQ's Heat Smart program requires biomass and other solid fuel burning devices that have heat output of less than one million Btu per hour to meet certification requirements. The existing rules exempt small biomass boilers from certification requirements if they are subject to federal National Emission Standards for Hazardous Air Pollutants. However, EPA revised its rules in 2012 to exempt small biomass boilers from these standards. DEQ's proposed rules reestablish the Heat Smart exemption for small commercial biomass boilers regulated through the construction approval or permit programs.

#### What need would the proposed rules address?

Small commercial biomass boilers with heat output less than one million Btu per hour cannot be sold in Oregon. DEQ's existing rules exempt small biomass boilers from the Heat Smart program if

#### How would the proposed rules address the need?

The proposed rule changes would allow small scale commercial biomass boilers to be sold in Oregon again, while ensuring they are still subject to existing state limits on particulate matter and

What need would the proposed rules address?

#### Re-establish Heat Smart woodstove replacement program exemption for small commercial solid fuel boilers regulated under the permitting program

they are subject to National Emission Standards for Hazardous Air Pollutants. The Heat Smart Program is intended to ensure that commercial and residential wood stoves and other wood heating devices meet certification standards. The certification standards were not designed to apply to biomass boilers. However, EPA recently exempted small biomass boilers from the National Emission Standards for Hazardous Air Pollutants. EPA's exemption subjected these devices to Oregon's Heat Smart rules unintentionally.

opacity. This proposal would eliminate the reference to the federal regulations and allow boilers with a heat output less than one million Btu per hour to be sold in Oregon.

#### 9. Remove annual reporting requirements for small gasoline dispensing facilities

DEQ proposes repealing the annual reporting requirement for small gasoline dispensing facilities after finding the reports unnecessary to ensure compliance with emission standards for preventing leaks and spills.

#### What need would the proposed rules address?

The annual reporting requirement for these small gasoline-dispensing facilities is unnecessary. A gasoline dispensing facility with a monthly throughput of fewer than 10,000 gallons of gasoline is currently required to:

- Meet work practice standards,
- Have a submerged fill tube installed on any tank at the facility that has a capacity of 250 gallons or more,
- Submit to DEQ a one-time initial notification and later a notification of compliance status, if subject to the submerged fill tube requirement, and
- Submit annual reports of throughput.

These facilities are not required to have an air quality permit. DEQ collected one-time throughput data from these facilities and has authority to request additional information if needed.

#### How would the proposed rules address the need?

The proposed rules would remove the annual reporting requirement for facilities with monthly throughput less than 10,000 gallons. DEQ would still have authority to request throughput information from these facilities but would only do so as needed for businesses close to the 10,000-gallon threshold to determine if they trigger permitting requirements.

How will DEQ know the rules have addressed the needs stated above?

To determine whether the rulemaking met its objectives, DEQ would confirm, as part of ongoing interaction with regulated parties, whether regulated parties have a clearer

understanding of the program and their obligations. DEQ expects to see a reduction in the number of business that request help interpreting the rules.

DEQ expects to see an improvement in air quality, which could result in fewer nonattainment areas, based on the following reductions in emissions from:

- Updates to the particulate matter standards;
- Offsets of priority sources causing air quality problems in areas that chose to become sustainment areas;
- Changes to the New Source Review preconstruction permitting program,

DEQ expects to have more flexibility in how DEQ holds public meetings and hearings, more participation from the public and reduced costs.

If EQC adopts the proposed rules after considering public comments, DEQ would submit the rules to EPA to update Oregon's State Implementation Plan. DEQ would know the goals of this rulemaking have been addressed when EPA reviews and approves the State Implementation Plan revision.

#### Rules affected, authorities, supporting documents

#### Adopt OAR:

340-200-0035, 340-202-0225, 340-204-0300, 340-204-0310, 340-204-0320, 340-206-8010, 340-206-8020, 340-206-8030, 340-206-8040, 340-208-0005, 340-212-0005, 340-214-0005, 340-222-0046, 340-222-0048, 340-222-0051, 340-224-0025, 340-224-0045, 340-224-0055, 340-224-0245, 340-224-0250, 340-224-0255, 340-224-0260, 340-224-0270, 340-224-0500, 340-224-0510, 340-224-0520, 340-224-0530, 340-224-0540, 340-226-0005, 340-226-8010, 340-234-0005, 340-234-0500

#### Amend OAR:

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340-200-0010, 340-200-0020, 340-200-0025, 340-200-0030, 340-200-0040, 340-200-0050,
340-200-0100, 340-200-0110, 340-200-0120, 340-202-0010, 340-202-0020, 340-202-0050,
340-202-0070, 340-202-0100, 340-202-0110, 340-202-0130, 340-202-0200, 340-202-0210,
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340-264-0120, 340-264-0130, 340-264-0140, 340-264-0150, 340-264-0160, 340-264-0170,
340-264-0175, 340-264-0180, 340-268-0010, 340-268-0020, 340-268-0030
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#### Amend and Renumber OAR:

340-222-0043 renumbered to 340-222-0035,

340-222-0045 renumbered to 340-222-0055,

340-224-0080 renumbered to 340-224-0034,

340-224-0100 renumbered to 340-224-0038

#### Repeal OAR:

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340\text{-}208\text{-}0100, 340\text{-}208\text{-}0200, 340\text{-}208\text{-}0600, 340\text{-}214\text{-}0400, 340\text{-}214\text{-}0410, 340\text{-}214\text{-}0420, 340\text{-}214\text{-}0430, 340\text{-}218\text{-}0250, 340\text{-}222\text{-}0070, 340\text{-}225\text{-}0090, 340\text{-}226\text{-}0200, 340\text{-}228\text{-}0400, 340\text{-}228\text{-}0410, 340\text{-}228\text{-}0420, 340\text{-}228\text{-}0430, 340\text{-}228\text{-}0440, 340\text{-}228\text{-}0450, 340\text{-}228\text{-}0460, 340\text{-}228\text{-}0470, 340\text{-}228\text{-}0480, 340\text{-}228\text{-}0490, 340\text{-}228\text{-}0500, 340\text{-}228\text{-}0510, 340\text{-}228\text{-}0520, 340\text{-}228\text{-}0530, 340\text{-}234\text{-}0300, 340\text{-}234\text{-}0310, 340\text{-}234\text{-}0320, 340\text{-}234\text{-}0330, 340\text{-}234\text{-}0340, 340\text{-}234\text{-}0350, 340\text{-}234\text{-}0360, 340\text{-}234\text{-}0400, 340\text{-}234\text{-}0410, 340\text{-}234\text{-}0420, 340\text{-}234\text{-}0430, 340\text{-}236\text{-}0110, 340\text{-}236\text{-}0120, 340\text{-}236\text{-}0130, 340\text{-}236\text{-}0140, 340\text{-}236\text{-}0150, 340\text{-}236\text{-}0200, 340\text{-}236\text{-}0210, 340\text{-}236\text{-}0220, 340\text{-}236\text{-}0230, 340\text{-}236\text{-}0430, 340\text{-}242\text{-}0770, 340\text{-}242\text{-}0720, 340\text{-}242\text{-}0730, 340\text{-}242\text{-}0740, 340\text{-}242\text{-}0750, 340\text{-}242\text{-}0760, 340\text{-}242\text{-}0770, 340\text{-}242\text{-}0780, 340\text{-}242\text{-}0790, 340\text{-}242\text{-}0780, 340\text{-}242\text{-}0780, 340\text{-}242\text{-}0790, 340\text{-}242\text{-}0780, 340\text{-}242\text{-}0780, 340\text{-}242\text{-}0790, 340\text{-}242\text{-}0780, 340\text
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Divisions 210, 216 and 218 include rules, programs or activities considered land use programs under the DEQ State Agency Coordination Program.

Statutory authority ORS 192, 468 and 468A

Statutes implemented ORS 183, 192, 468, 468A, 477, Or. Laws 2009, chapter 754

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

Document title	Document location		
06/06/90 EPA guidance titled "Performance Test Calculation"	http://www.epa.gov/ttn/emc/rounding.pdf		
EPA Method 9—Visual Determination of the Opacity of Emissions From Stationary Sources	http://www.epa.gov/ttn/emc/promgate/m-09.pdf		
Method 22 - Visual Determination of Fugitive Emissions From Material Sources and Smoke Emissions From Flares	http://www.epa.gov/ttn/emc/promgate/m-22.pdf		
Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	http://www.gpo.gov/fdsys/pkg/CFR-2011-title40-vol6/pdf/CFR-2011-title40-vol6-part60-subpartIIII.pdf		
Standards of Performance for Stationary Spark Ignition Internal Combustion Engines National Emission Standards for Hazardous	http://www.gpo.gov/fdsys/pkg/CFR-2011-title40-vol6/pdf/CFR-2011-title40-vol6-part60-subpartJJJJ.pdf http://www.gpo.gov/fdsys/pkg/FR-2013-01-30/pdf/2013-		
Air Pollutants for Reciprocating Internal Combustion Engines; New Source Performance Standards for Stationary Internal Combustion Engines	01288.pdf		
Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines; Final Rule	http://www.epa.gov/ttn/atw/area/fr18ja08.pdf		
Regulations Pertaining to NPDES and WPCF Permits (OAR 340-45)	http://arcweb.sos.state.or.us/pages/rules/oars_300/oar_340/340_045.html		
2011 Oregon Air Quality Data Summaries	http://www.deq.state.or.us/aq/forms/2011AirQualityAnnualReport.pdf		
National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers; Final Rule	http://www.gpo.gov/fdsys/pkg/FR-2013-02-01/pdf/2012-31645.pdf		
Stationary Source Reporting Requirements - OAR 340-214-0110	http://arcweb.sos.state.or.us/pages/rules/oars_300/oar_340/340_214.html		
40 CFR Part 58, Appendix D — Network Design Criteria for Ambient Air Quality Monitoring	http://www.gpo.gov/fdsys/granule/CFR-2012-title40-vol6/CFR-2012-title40-vol6-part58-appD/content-detail.html		
Air Contaminant Discharge Permits – Table 1, DEQ relied on OAR 340-216-0020	http://arcweb.sos.state.or.us/pages/rules/oars_300/oar_340/ _340_tables/340-216-0020_10-24.pdf		
Consumer Price Index Conversion Factors 1774 to estimated 2021 to Convert to Dollars of 1998. 2013 Robert C. Sahr, Political Science, Oregon State University, Rev 05/08/2013	http://oregonstate.edu/cla/polisci/sites/default/files/faculty-research/sahr/inflation-conversion/excel/cv1998.xls		
EPA Cost Control Manual, Sixth Edition. U.S EPA report #EPA/452/B-02-001, January 2002.	http://www.epa.gov/ttn/catc/dir1/c allchs.pdf		
Emission Controls for Small Wood-Fired Boilers, Prepared for: United States Forest Service, Western Forestry Leadership Coalition, May 2010	http://www.wflccenter.org/news_pdf/361_pdf.pdf		

### Fee Analysis

This rulemaking does not involve any change in fees.

#### Fiscal and economic impacts

The proposed rules would have fiscal and economic impacts on the public, businesses, state agencies and units of local governments. DEQ proposes to:

- Streamline, reorganize and update Oregon's air quality permit programs to improve air quality with more efficient and effective permitting programs,
- Amend statewide particulate matter standards and the preconstruction permitting program to help Oregon comply with EPA's adoption of the ambient air quality standard for fine particulate, also known as PM<sub>2.5</sub> and respond to problems identified with Oregon's permitting program that must be addressed to protect air quality,
- Add preconstruction permitting flexibility for smaller facilities,
- Improve community outreach, and
- Make minor changes to the woodstove replacement program called Heat Smart and the gasoline dispensing facility rules to improve program implementation.

#### Statement of Cost of Compliance

This section organizes the cost of compliance by the nine categories of rule changes.

Impacts on state agencies, local government and the public

#### 1. Clarify and update air quality rules

The proposed rules to improve the organization and increase the clarity of the rules may have slight positive fiscal and economic impacts on state agencies, local governments and the public because the rules would be easier for people to understand. DEQ lacks information to estimate individuals' time savings in using rules that are easier to understand. DEQ expects the clarifications and updates would have no negative impacts except DEQ's permitting staff would experience a slight workload increase until staff becomes familiar with the proposed rules followed by a workload decrease.

#### 2. Update particulate matter emission standards

<u>State agencies and local government:</u> The proposed particulate emission standards would have positive and negative fiscal and economic impacts on state agencies and local governments.

The proposed rules would create positive fiscal and economic impacts indirectly in the form of cost savings for DEQ and Oregon communities. Reducing emissions before an area exceeds ambient air quality standards would help Oregon avoid additional nonattainment designations by EPA. As a result, DEQ and Oregon communities could avoid the costs to develop and implement attainment plans for these areas. DEQ is unable to estimate the cost

savings because each plan is unique, but the recent plan for Klamath Falls took two years to develop and required resources from EPA, DEQ, the Klamath Falls Air Quality Advisory Committee and other community members. DEQ expects its permitting staff would experience a slight workload increase until staff becomes familiar with the proposed rules followed by a workload decrease.

The proposed rules would have no fiscal and economic impacts on state agencies and local governments holding permits because these facilities already meet the lower emission standards so none of these agency- or government-owned facilities would be required to make any changes to comply with the proposed rules. State agencies own 30 permitted facilities, federal agencies and tribes own 8 permitted facilities, and local governments own 68 permitted facilities.

<u>Public:</u> DEQ expects the proposed lower particulate matter standards would have no fiscal or economic impacts on the public directly. The proposed rules could affect the public indirectly if businesses change the price of goods and services to offset the costs of compliance. DEQ expects any such price increases to be small but lacks available information to estimate potential increases accurately.

The proposed rules could create positive economic benefits and improvements in public health and welfare indirectly by reducing particulate matter emissions statewide. Particulate matter causes serious health problems ranging from increased respiratory and pulmonary symptoms, hospital admissions and emergency room visits, to premature death for people with heart and lung disease. These health problems have negative economic impacts. DEQ lacks available information to estimate the health and welfare benefits, but when EPA adopted the current 24-hour PM<sub>2.5</sub> national ambient air quality standard in 2006, EPA estimated the following:

- The nationwide cost of meeting the revised 24-hour PM<sub>2.5</sub> standards at \$5.4 billion in 2020. This estimate includes the costs of purchasing and installing controls for reducing pollution to meet the standard.
- The revised standards will yield \$9 billion to \$76 billion a year in health and visibility benefits in 2020. Health benefits include reductions in premature death, diseases and symptoms associated with fine particle pollution exposure.

### 3. Change permitting requirements for emergency generators and small natural gas or oil-fired equipment

State agencies and local governments: The proposed changes to permitting requirements for emergency generators and small natural gas or oil-fired equipment would have a negative fiscal and economic impact on state agencies and local governments required to obtain a new permit for these generators or equipment. The initial cost to obtain a new permit is \$1,200 plus permit holders pay approximately \$1,300 in annual fees. However, DEQ expects no state agencies and local governments would be required to obtain new permits as a result of the proposed rules because most facilities that have generators or equipment subject to the proposed rules already hold air quality permits. State agencies own 30 permitted facilities, federal agencies and tribes own 8 permitted facilities, and local governments own 68 permitted facilities.

If any state agencies and local governments that already hold air quality permits are subject to the proposed requirements for emergency generators and small natural gas or oil-fired equipment, DEQ would add the new requirements to these facilities' permits at the time of permit renewal. The proposed rules would not affect these facilities' permit fees. These businesses might experience costs associated with additional recordkeeping depending on their current environmental managements systems. DEQ lacks available information to estimate those costs of additional recordkeeping accurately.

DEQ workload would increase initially and could level off or decrease depending on the number of new facilities that require permits.

<u>Public:</u> DEQ does not anticipate any fiscal or economic impacts from the proposed rules directly on the public. The proposed rules could affect the public indirectly if businesses change the price of goods and services to offset the costs obtaining a new permit. DEQ expects any such price increases to be small but lacks available information to estimate potential increases accurately. The proposed rules could create positive economic benefits and improvements in public health and welfare indirectly by helping Oregon protect air quality.

## 4. Establish two new state air quality area designations, "sustainment" and "reattainment," to help areas avoid and more quickly end a federal nonattainment designation.

The proposed rules to establish new state air quality area designations would have positive fiscal and economic impacts.

State agencies: DEQ expects the proposed rules to reduce the likelihood EPA will designate an area as nonattainment. By designating sustainment areas before areas exceed ambient air quality standards and are designated as nonattainment areas, DEQ and Oregon communities would avoid the costs of developing and implementing attainment plans. DEQ is unable to estimate the costs savings because each plan is unique. Designating reattainment areas would require approximately the same work as designating a maintenance area, but reattainment designation could happen more quickly than maintenance designation. DEQ's workload would initially increase as staff becomes familiar with the proposed rules followed by a workload decrease. The proposed rules would have no fiscal or economic impacts on other state agencies because they do not permit businesses or hold permits in the areas affected by the proposed rules. The only two federally owned facilities with permits in the affected area are so small that they are not affected by the sustainment or reattainment area designations.

Local government: The proposed rules would have a positive fiscal and economic impact in sustainment areas indirectly by allowing businesses to build or expand in the areas as long as air quality is protected. The proposed rules would have a positive fiscal and economic impact in reattainment areas indirectly because new and modified facilities that fall below the federal major source threshold would be subject to less stringent requirements provided they were not identified as significant contributors to the air quality problems in the area. The proposed rules would have positive fiscal and economic impacts on local governments by avoiding the costs of developing and implementing attainment plans, such as convening advisory committee meetings required under the nonattainment and maintenance area designations. DEQ lacks available information to estimate these impacts accurately.

<u>Public:</u> DEQ does not anticipate the proposed rules under this category to have any direct fiscal or economic impacts on the public. Positive fiscal or economic impacts to the public could occur indirectly, such as increased access to goods and services, if more businesses build or expand in the sustainment or reattainment areas. DEQ lacks available information to estimate these impacts accurately.

### 5. Designate Lakeview as a state sustainment area while retaining its federal attainment designation

The proposed rules to identify Lakeview as a state sustainment area would have the same fiscal and economic impacts on state agencies, local governments and the public as establishing the new state air quality area designation described in category 4 above. In addition, if a new business locates in Lakeview and buys woodstove offsets, some members of the public may benefit from woodstove replacements.

#### 6. Change the New Source Review preconstruction permitting program

<u>State agencies and local government:</u> DEQ expects the proposed changes to the preconstruction permitting program would have no negative fiscal and economic impacts on state and federal agencies and local governments because it's unlikely these entities' permitted facilities would ever trigger requirements for New Source Review.

DEQ expects the proposed rules would not change the workload of U.S. Forest Service and National Park Service land managers who currently review New Source Review permit applications for businesses located close to Class I areas, which are usually designated wilderness areas. DEQ expects its permitting staff would experience a slight workload increase until staff becomes familiar with the proposed rules followed by a workload decrease.

The proposed rules would create positive fiscal and economic impacts indirectly in the form of cost savings for DEQ and Oregon communities. Reducing emissions before an area exceeds ambient air quality standards would help Oregon avoid additional nonattainment designations by EPA. As a result, DEQ and Oregon communities would avoid the costs to develop and implement attainment plans for these areas. DEQ is unable to estimate the cost savings because each plan is unique, but the recent plan for Klamath Falls took two years to develop and required resources from EPA, DEQ, the Klamath Falls Air Quality Advisory Committee and other community members.

The proposed rules removing greenhouse gas permitting requirements would create positive fiscal and economic impacts in the form of cost savings for U.S. Forest Service, National Park Service land managers and DEQ who currently review New Source Review permit applications since fewer application will be required.

<u>Public:</u> DEQ expects the proposed rules would have no fiscal or economic impacts on the public directly. The proposed rules could affect the public indirectly if businesses change the price of goods and services to offset the costs of complying with the proposed rules. DEQ expects any such price increases for goods or services to be small and lacks available information upon which it could accurately estimate potential increases.

#### 7. Modernize methods allowed for holding public hearings and meetings

State agencies and local government: The proposed rules to increase flexibility for public hearings and meetings would have positive fiscal and economic impacts on state agencies, local governments and the public. After DEQ has established the necessary technology, it would have the option to allow people to call into hearings and meetings from any location instead of requiring people to travel to the hearing or meeting. The proposed rules would have positive impacts by indirectly decreasing travel and associated expenses for state agencies, local governments and others who attend or participate in DEQ hearings and meetings. Cost savings depend on the physical location of the hearing or meeting. DEQ lacks available information to estimate costs to attendees because the travel distance and frequency is unknown.

In addition, with the option to hold Internet-based virtual meetings, DEQ would experience cost savings by holding meetings across the state using fewer resources. Currently, DEQ staff travel to numerous public hearings and meetings as required by the existing rules. DEQ's cost for using a state car is \$0.56 per mile and accommodation rates for staff are approximately \$83 to \$126 per night. The average hourly rate of a DEQ permit writer who typically represents DEQ at these hearings and meetings is \$70 to \$85 per hour including benefits. The total cost of the hearing or meeting depends on how far staff must travel. If the physical location of the hearing or meeting is two hours from staff's home city, DEQ's cost could be approximately \$2,000. At least \$800 of this is transportation costs. DEQ's workload may increase initially depending on implementation of the proposed rules, but is expected to decrease as staff becomes familiar with the procedures of holding virtual hearings and meetings.

<u>Public:</u> The public may experience positive indirect fiscal or economic impacts due to DEQ's more efficient use of state resources. DEQ expects costs to be small per individual and lacks available information to estimate potential decreases accurately.

### 8. Re-establish Heat Smart woodstove replacement program exemption for small commercial solid fuel boilers regulated under the permitting program

<u>State agencies, local government and the public:</u> The proposed re-establishment of the woodstove replacement program exemption would have no fiscal or economic impacts on state agencies, local governments and the public because these entities do not sell commercial solid fuel boilers. DEQ's workload would not change because the proposed rules would allow DEQ to continue the pre-existing program.

#### 9. Remove annual reporting requirement for small gasoline dispensing facilities

State agencies, local government and the public: The proposed elimination of annual reporting requirements for certain small gasoline dispensing facilities would have small positive fiscal and economic impacts on any state agencies and local governments who own or operate these facilities. The proposed rules would eliminate their costs associated with the annual reports, such as recordkeeping and administrative activities. DEQ estimates that any positive impact on gasoline dispensing facilities would be very small and would probably not be passed on to the public indirectly in the form of reduced costs for goods or services.

Large businesses - businesses with more than 50 employees

DEQ anticipates the proposed rules would have the following fiscal and economic impact on approximately 1340 large businesses.

#### 1. Clarify and update air quality rules

The proposed rules to improve the organization and to increase clarity of the rules may have slight positive fiscal or economic impacts on businesses because the rules would be easier to use and understand. DEQ lacks information to estimate large businesses' time savings in using rules that are easier to understand.

#### 2. Update particulate matter emission standards

The proposed particulate emission standards would have positive and negative fiscal and economic impacts on large businesses holding air quality permits.

**Positive:** The proposed rules have positive fiscal and economic impacts on business indirectly by helping DEQ and Oregon communities avoid severe restrictions for businesses that want to build or expand in some areas that are exceeding or are close to exceeding ambient air quality standards. Reducing emissions in these areas would help Oregon avoid nonattainment designations by EPA. When EPA designates an area as nonattainment, federal requirements automatically apply to industrial sources, such as requiring the most stringent control equipment for new or expanding sources or reasonable control measures, such as more strict opacity standards, and requirements for operation and maintenance plans and fugitive emission plans for existing sources. These restrictions may also prevent some industries from expanding or moving to the nonattainment area.

**Negative:** DEQ reviewed ten years of source test data submitted to DEQ and the Lane Regional Air Protection Agency and determined approximately two businesses that own wood-fired boilers may need to optimize boiler or control equipment performance to comply with the proposed opacity and grain loading limits. One of these wood-fired boilers has no controls and is not currently operating; the owner and operator of this boiler might be required to install a multiclone system if the business decides to operate the boiler.

The costs depend on the methods of compliance or pollution control technology, such as boiler tune-ups or replacement, multiclone optimization or installation and source testing. Based on inquiries with boiler manufacturers, pollution control vendors, engineering design consultants, and the regulated businesses, as well as information provided by the fiscal advisory committee, DEQ estimates the cost of complying with the proposed standards as follows:

<u>Boiler tune-ups</u>: Conducting annual tune-ups is one way to optimize performance of a boiler. Vendors estimated a typical boiler tune-up that requires no replacement parts would cost between \$2,000 and \$11,000. A typical tune-up may include:

- A visual inspection of the system while operating, looking for obvious things that need repair
- Review of past performance checks and expected performance data

- Gathering performance data (oxygen and carbon dioxide readings, stack temperature, feed water temperature, fuel moisture and steam flow)
- Making adjustments to boiler air delivery settings

A more comprehensive boiler tune-up costs from \$33,000 to \$65,000. A boiler tune-up may or may not allow sources to comply with the new standards over time but could provide other benefits such as reduced fuel costs. Newly adopted federal law already requires wood-fired boilers to be tuned up every two to five years so this may not be an additional cost.

Multiclone optimization: If a tune-up is not adequate to comply with the standard, an owner or operator may choose to do a one-time optimization of its multiclone control technology. Nearly all wood-fired boilers in the state already have multiclones. Emissions from these boilers can be reduced by inspecting the integrity of all parts of the multiclone and checking for and repairing plugged or damaged tubes annually. A thorough multiclone inspection costs approximately \$3,000 to \$4,000. As part of the inspection, it may be necessary to install access panels and a gauge for accurately measuring the pressure drop across the multiclone at an additional cost of \$1,000 to \$2,000. Most wood-fired boilers with multiclones already have gauges to measure pressure drop. According to one vendor, the repair or upgrade of a multiclone is estimated to range in cost from \$10,000 to a \$200,000 per boiler, depending on upgrades employed. The upper-end cost estimate may be atypical since it exceeds other vendors' estimates for the cost of a new multiclone.

Another option for multiclone optimization is flue gas recirculation. Optimum performance of a multiclone occurs within a pressure drop range of about two to four inches of water column. However, the pressure drop can vary significantly, depending on the gas flow rate through the multiclone. The actual gas flow rate for a wood-fired boiler varies due to many factors, including firing rate and fuel quality. It is possible, however, to optimize multiclone performance with varying firing rates by using flue gas recirculation, which provides a nearly constant gas flow rate and a consistent pressure drop across the multiclone. Installation of flue gas recirculation ranges in cost from \$30,000 to \$100,000.

Engineering analysis: If a boiler tune-up or multiclone optimization does not enable a wood-fired boiler to meet the proposed particulate matter standard of 0.15 gr/dscf, the owner or operator of the boiler may request a source specific particulate matter limit of 0.17 gr/dscf. Before receiving a source specific particulate matter limit, the owner or operator must submit to DEQ a report by a registered professional engineer that specializes in boiler and multiclone optimization to evaluate existing equipment optimization options and certify a 0.15 gr/dscf standard cannot be met without installing additional controls. The cost of this engineering report will vary, depending on the reasons for the source specific particulate matter limit, but is expected to be within the range of \$8,000 to \$24,000.

Source test data shows all boilers currently operating in the state can meet 0.17 gr/dscf except for the one backup boiler described previously that is currently not in use. If boiler optimization does not allow this boiler to meet 0.17 gr/dscf, this facility may choose to install a multiclone if it decides to operate the backup boiler on wood rather than using the existing natural gas boiler.

<u>Multiclone Installation:</u> An owner or operator may choose to install multiclone pollution control equipment. Vendors state that compliance with a 0.15 gr/dscf particulate matter

standard is possible with multiclones, especially with ceramic high-efficiency multiclones, but is not guaranteed. Ceramic high-efficiency multiclones have been shown to reduce particulate matter to as low as 0.06 gr/dscf, cost approximately \$110,000 to \$120,000, and last three to five times longer than iron multiclones. Typical iron multiclones cost approximately \$60,000 to \$150,000 for the purchase and installation and last approximately 12 to 15 years before needing replacement.

<u>Source Testing:</u> An owner or operator that makes changes to its wood-fired boilers or pollution control equipment to meet the standard must perform source testing to determine if the changes were effective. A particulate matter source test costs approximately \$12,000. Businesses are already required to perform periodic compliance source testing and could save \$12,000 if the tests could be aligned.

Continuous opacity monitoring systems: An owner or operator may voluntarily choose to install a continuous opacity monitor to ensure it complies with opacity limits at all times. The responsible official for each Title V source is already required to submit a compliance certification report every six months stating whether compliance is continuous or intermittent. Opacity is a good indicator of how well a boiler is operating. High opacity is a result of high emissions and can inform the operator that adjustments are needed to reduce emissions. Adding a continuous opacity monitoring system, along with flue gas recirculation, would help the operator run the boiler efficiently and in compliance with the emissions standards at all times.

A continuous opacity monitoring system ranges in costs from \$13,000 to \$30,000. Installation costs range from \$5,000 to \$40,000 depending on the situation at the facility. Annual operating costs range from \$300 to \$6,000 per year. Equipment and installation cost of a recently installed system on a wood-fired boiler was \$27,800. These costs do not include the cost of a computer, which is a necessary component to these monitoring systems.

Electrostatic precipitators: Installation of an electrostatic precipitator is not required to meet the proposed standards, but a business could voluntarily elect to install electrostatic precipitators to reduce emissions. An electrostatic precipitator can easily meet the 0.15gr/dscf standard because it controls emissions over the wide range of operating conditions that may occur due to changing steam demand and fuel quality. Based on input from vendors, DEQ determined a new electrostatic precipitator costs from approximately \$700,000 to \$2.7 million. This cost could vary by plus or minus 40 percent. However, a facility could use a smaller electrostatic precipitator if its goal were simply to comply with the 0.15 gr/dscf standard. Smaller electrostatic precipitators suitable for the affected wood-fired boilers range in costs from approximately \$420,000 to \$700,000 installed. In early discussions on the proposed changes to the particulate matter standards, one business informed DEQ it was considering a used wood-fired package boiler with an electrostatic precipitator for approximately \$500,000.

<u>Boiler replacement:</u> Boiler replacement is not required to meet the proposed standards, but a business could voluntarily elect to replace a boiler to reduce emissions. A new wood-fired boiler with an electrostatic precipitator installed in 2006 cost about \$7 million. Boilers that provide 25,000 to 200,000 pounds of steam per hour are estimated to cost in the range of \$5.5 million to \$17.9 million. These costs include electrostatic precipitators and continuous opacity monitors.

<u>Summary of annualized costs:</u> The following table summarizes and compares the cost effectiveness of several pollution control devices for controlling  $PM_{10}$  emissions.

Cost Effectiveness for Controlling PM <sub>10</sub> Emissions								
Pollution Control Device	Control Efficiency	PM <sub>10</sub> Emissions Removed (tons/year)	Installed Capital Cost of Equipment	Annual Operating Costs	Total Annual Costs	Total Cost per Ton Removed		
Cyclone	50%	0.9	\$2,243	\$580	\$791	\$930		
Multiclone	75%	1.3	\$9,424	\$580	\$1,469	\$1,151		
High Efficiency Multiclone	99%	1.3	\$62,878	\$800	\$6,980	\$4,159		
High Efficiency Multiclone (valved)	99%	1.7	\$125,756	\$800	\$12,915	\$7,695		
Core Separator (12")	94%	1.7	\$111,709	\$1,239	\$12,350	\$7,685		
Core Separator (24")	72%	1.2	\$63,337	\$1,459	\$8,004	\$6,519		
Cyclone + Baghouse	99%	1.7	\$109,878	\$3,920	\$14,291	\$8,483		
ESP	95%	1.6	\$138,005	\$1,867	\$14,894	\$9,213		

Note: This table is from "Emission Control for Small Wood-Fired Boilers" prepared for the U.S. Forest Service's Western Forestry Leadership Coalition in May 2010

DEQ estimated costs based on information from equipment vendors and EPA's Cost Control Manual. In addition to the size of the wood-fired boiler, the following are factors, which cause variability in capital costs and are not accounted for in the EPA Cost Control Manual:

- Change in the price of steel
- Foreign exchange rates for equipment purchased overseas
- Pollution control device design
- Fuel characteristics such as variable firing rates and wet fuels
- Space requirements
- Ancillary equipment such as ductwork.
- Shipping costs.

Note: DEQ originally considered proposing a much more stringent statewide particulate matter emission standard (0.10 gr/dscf and 20 percent opacity)). DEQ determined 11 businesses were at risk of non-compliance with the more stringent standard. Seven of these businesses were wood products facilities with wood-fired boilers, one was a pulp mill that operates its boiler on residual oil during natural gas curtailment, and three were asphalt plants. After receiving input from businesses and stakeholders following DEQ's August 2013 workshops, DEQ determined that compliance with the original proposal could have significant negative fiscal and economic impacts and possibly require process changes or expensive controls such as electrostatic precipitators. DEQ mitigated the negative impacts by proposing alternative standards that are based on well

maintained and typically available control technology, often multiclones for wood-fired boilers. The three asphalt plants that were at risk of exceeding the original proposal are older plants that use wet scrubber controls and are exempt because of the hours of operation exemption in DEQ's proposed rules. As a result of the mitigation, DEQ does not anticipate that the proposed rules would require any business to shut down, replace a boiler or change fuel types.

#### 3. Change permitting requirements for emergency generators and small natural gas or oilfired equipment

The proposed rules to change permitting requirements for emergency generators and small natural gas or oil-fired equipment would have a negative fiscal and economic impact on any facilities required to obtain a new permit for these generators and equipment. The initial cost to obtain a new permit is \$1,200 plus these permit holders pay approximately \$1,300 in annual fees. However, DEQ expects no current facilities would be required to obtain a new permit as a result of the proposed rules because most facilities that have generators or small natural gas or oil-fired equipment already hold air quality permits. DEQ would add the permitting requirements to these facilities' permits at the time of their permit renewals. The proposed rules would not affect these facilities' permit fees. These facilities might experience costs associated with additional recordkeeping depending on their current environmental managements systems. DEQ lacks available information to estimate the costs of additional recordkeeping accurately.

## 4. Establish two new state air quality area designations, "sustainment" and "reattainment," to help areas avoid and more quickly end a federal nonattainment designation; and

### 5. Designate Lakeview as a state sustainment area while retaining its federal attainment designation

The proposed sustainment and reattainment area rules would have positive fiscal and economic impacts on large businesses. Without the new area designations, it will continue to be nearly impossible for businesses to obtain a permit to construct new smaller sources of air pollution in these areas. Although there is a cost associated with obtaining a permit, DEQ believes the proposed rules have a net positive fiscal and economic impact by reducing restrictions and creating opportunities for new businesses to be constructed and operated. The proposed rules do not change the permitting requirements for Oregon's largest sources of air pollution, known as federal major sources, and therefore have no fiscal or economic impact on these sources. DEQ expects creating the new area designations to have no negative fiscal or economic impacts on businesses.

#### 6. Change the New Source Review preconstruction permitting program

The proposed rules to change the preconstruction permitting program would have positive and may have negative fiscal and economic impacts on large businesses. DEQ is unable to quantify the magnitude of the impact accurately because New Source Review permitting requires DEQ to perform a case-by-case analysis and the type of pollution controls and computer modeling varies for each case.

**Positive:** Establishing a preconstruction permitting program for small sources of air pollution (called State New Source Review) distinct from the New Source Review program for federal major sources, would have positive fiscal and economic impacts on businesses because the changes would eliminate restrictions on some smaller sources that wish to build or modify their facilities. The proposed rules would allow construction and modification as long as the area's air quality is protected.

The proposed rules would likely reduce costs for businesses in the State New Source Review program in areas DEQ wants to transition from nonattainment to maintenance more quickly than EPA could redesignate the area to attainment (EPA does not have a maintenance area designation). The proposed rules allow these businesses to meet requirements for maintenance areas instead of more stringent requirements for nonattainment areas. The control technology required in a maintenance area is typically less expensive than technology required in a nonattainment area. If the technology required in maintenance areas results in fewer emission reductions than the business could achieve with technology required in nonattainment areas, the business might be required to purchase more offsets. As a result, there may be higher emission offset costs in maintenance areas if the less expensive control technology allows higher emissions.

The proposed rules clarify how DEQ provides extensions of a construction permit when construction is delayed. This would have a positive fiscal and economic impact on a business that needs an extension because the permit fees for extensions are lower than the initial application fees for a construction permit. In addition, the business would be allowed to continue to use any offsets obtained under the original application as long as the offsets did not expire.

The proposed rules removing greenhouse gas permitting requirements would create positive fiscal and economic impacts in the form of cost savings for large businesses because permit applications and potential control technologies would not be required.

**Negative:** The proposed rules improve air quality by raising the amount of offsets a new or modified business would be required to purchase, which would have negative fiscal and economic impacts on businesses. The cost of offsets for industrial facilities varies from \$2,500 per ton to \$100,000 per ton, depending on the pollutant and the supply and demand for offsets. In areas where air quality is close to an ambient air quality standard, the proposed rules also create incentives by allowing fewer offsets to be obtained by a business that chooses to obtain its offsets from sources that are the greatest contributors to the area's air quality problems. The proposed rules would provide businesses the opportunity to obtain offsets from woodstoves. The cost to replace an uncertified woodstove is approximately \$3,000. A certified woodstove reduces emissions by about 0.03 tons per woodstove on an annual basis. The cost of one ton of offsets from woodstoves is approximately \$100,000.

#### 7. Modernize methods allowed for holding public hearings and meetings

The proposed rules to provide DEQ more flexibility for public hearings and meetings would have a positive fiscal and economic impact on large businesses indirectly because they would have more options and cost savings when participating in hearings and meetings. Cost savings depend on the physical location of the hearing or meeting and distance of travel for attendees.

DEQ expects adding flexibility for public hearings and meetings to have no negative fiscal or economic impacts on businesses.

# 8. Re-establish Heat Smart woodstove replacement program exemption for small commercial solid fuel boilers regulated under the permitting program

The proposed rules to re-establish the woodstove replacement program exemption would have a positive economic benefit on large businesses directly because it would allow them to once again sell small biomass boilers for commercial, industrial and institutional uses in Oregon. By allowing these sales, the proposed rules also have a positive impact on businesses that manufacture, purchase or use small biomass heating systems in commercial, industrial and institutional applications in Oregon. DEQ expects re-establishing the program to its former state, before sales were inadvertently prohibited, to have no negative fiscal or economic impacts on businesses.

# 9. Remove annual reporting requirement for small gasoline dispensing facilities

The proposed elimination of annual reporting requirement for certain gasoline dispensing facilities would have small positive fiscal and economic impacts on 60 large businesses directly by eliminating their costs associated with the annual reports, such as recordkeeping and administrative activities. DEQ expects removing the reporting requirement to have no negative fiscal or economic impacts on businesses.

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

In addition to the fiscal and economic impact described under the section above "Large businesses businesses with more than 50 employees," the proposed rules could have the following impacts on small business.

a) Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule. The proposed rules would affect approximately 1333 small businesses, such as asphalt plants, rock crushers and grain elevators. The proposed rules would affect approximately 440 small businesses that own or operate small gasoline dispensing facilities and approximately 60 small businesses that own or operate emergency generators and small natural gas or oil-fired equipment.

Many of the small businesses subject to the lower grain loading and opacity standards already have the lower standards in their permits. Current compliance information indicates that all small businesses already comply with the proposed standards and would not experience fiscal or economic impacts.

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

The proposed rules would eliminate annual reporting, recordkeeping and administrative activities associated with the annual reporting requirements for gasoline dispensing facilities with monthly throughput of less than 10,000 gallons of gasoline.

The proposed rules would increase recordkeeping and reporting for emergency generators and small natural gas or oil-fired equipment over permitting thresholds.

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

DEQ expects the proposed rules would result in no additional costs for equipment, supplies, labor or administration.

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

DEQ notified small businesses during rule development by mail and email, announcements on the DEQ website, stakeholder meetings, a fiscal advisory committee meeting, and the DEQ Small Business Compliance Advisory Panel. At the onset of the public comment period, DEQ notified small businesses by mail, email, notices in the Secretary of State Bulletin, and ads in newspapers.

#### Documents relied on for fiscal and economic impact

Air Contaminant Discharge Permits – Table 1, DEQ relied on OAR 340-216-0020 <a href="http://arcweb.sos.state.or.us/pages/rules/oars\_300/oar\_340/\_340\_tables/340-216-0020\_10-24.pdf">http://arcweb.sos.state.or.us/pages/rules/oars\_300/oar\_340/\_340\_tables/340-216-0020\_10-24.pdf</a>

EPA Air Pollution Control Cost Manual, Report No. 452/B-02-001, January 2002, Section 6, Chapter 1, Baghouses and Filters <a href="http://www.epa.gov/ttn/catc/dir1/cost\_toc.pdf">http://www.epa.gov/ttn/catc/dir1/cost\_toc.pdf</a>

Consumer Price Index Conversion Factors 1774 to estimated 2021 to Convert to Dollars of 1998. 2013 Robert C. Sahr, Political Science, Oregon State University, Rev 05/08/2013 <a href="http://oregonstate.edu/cla/polisci/sites/default/files/faculty-research/sahr/inflation-conversion/excel/cv1998.xls">http://oregonstate.edu/cla/polisci/sites/default/files/faculty-research/sahr/inflation-conversion/excel/cv1998.xls</a>

Emission Controls for Small Wood-Fired Boilers, Prepared for: United States Forest Service, Western Forestry Leadership Coalition, May 2010 http://www.wflccenter.org/news\_pdf/361\_pdf.pdf

#### Advisory committee for fiscal and economic impact statement

DEQ appointed an advisory committee for the sole purpose of making recommendations on this fiscal and economic impact statement.

To comply with ORS 183.333, DEQ asked for the committee's recommendations on:

- Whether the proposed rules would have a fiscal impact,
- The extent of the impact, and
- Whether the proposed rules would have a significant impact on small businesses and comply with <u>ORS 183.540</u>.

The committee reviewed the draft fiscal and economic impact statement, specifically the impact on small businesses, and documented its recommendations in the <u>Fiscal Impact Advisory</u> <u>Committee Meeting Summary</u>. The committee concluded that the proposed rules will have a fiscal and economic impact but found it difficult to assess the extent of the impact. The

committee had mixed opinions on whether the rules will have a significant impact on small business, although most concluded that the direct impacts would not be significant. To meet requirements in ORS 183.540, the committee considered how to reduce the economic impact on small business. One committee member suggested that economic impacts on small businesses could be reduced by providing funds such as tax credits or sinking funds. No other committee members offered suggestions.

DEQ considered input from the advisory committee and DEQ's standing Small Business Compliance Advisory Panel when completing this fiscal and economic impact statement.

# Housing cost

To comply with ORS 183.534, DEQ determined the following three categories of the proposed rules may have an effect on the development cost of a 6,000-square-foot parcel and construction of a 1,200-square-foot detached, single-family dwelling on that parcel.

**Update particulate matter emission standards:** The costs of compliance could be passed through by businesses providing products and services for such development and construction.

Change permitting requirements for emergency generators and small natural gas or oil-fired equipment: The costs for additional permits could be passed through by businesses providing products and services for such development and construction.

Change the New Source Review preconstruction permitting program: The costs for additional permits, control or process equipment could be passed through by businesses providing products and services for such development and construction. The proposed rules removing the greenhouse gas permitting requirements would avoid the cost, potentially thousands of dollars, of permit applications and potential control technologies.

The possible impact of these proposed changes appears to be minimal. DEQ cannot quantify the impact at this time because the available information does not indicate whether the costs would be passed on to consumers and any such estimate would be speculative.

The other proposed changes do not have an effect on housing costs. The other proposed changes would make it easier for people to use and understand air quality rules, modernize methods allowed for holding public hearings and meetings, remove reporting requirements, affect the sales of small biomass boilers, and affect whether businesses can construct or modify air contaminant sources in sustainment or reattainment areas.

# 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..." ORS 183.332

#### Relationship to federal requirements

This section complies with OAR 340-011-0029 and ORS 468A.327 to clearly identify the relationship between the proposed rules and applicable federal requirements.

The following six categories of DEQ's proposed changes contain rules that are "in addition to federal requirements."

**1.** Clarify and update air quality rules: EPA has no rules that clarify and update existing DEQ rules.

What alternatives did DEQ consider, if any?
DEQ considered doing nothing, but did not pursue this alternative because the existing

rules contain errors and create confusion and misinterpretations for regulated parties.

2. Update particulate matter standards: The proposed rules protect public health and the environment. DEQ has statewide opacity limits for new and existing sources, including fugitive emission sources. While some of EPA's New Source Performance Standards have opacity and particulate matter limits for specific regulated industries, EPA regulations do not apply an equivalent opacity standard to all sources.

The proposed rules are in addition to federal requirements for two New Source Performance Standards that have opacity limits for fugitive emissions but different than federal requirements. The proposed rules would require a permit holder to abate any fugitive emissions that leave the permit holder's property. Using EPA Method 9 to determine compliance, the New Source Performance Standard for Metallic Mineral Processing Plants (Subpart LL) requires fugitive emissions to meet 10 percent opacity and the NSPS for Nonmetallic Mineral Processing Plants (Subpart OOO) contains a limit of 7 percent opacity and allows an affected facility to rely on water carryover from upstream water sprays to control fugitive emissions.

DEQ's proposed changes to the current statewide visible emission standards that apply to non-fugitive sources would make DEQ's standards substantively equivalent to EPA's visible emissions standards. DEQ proposes changing the standards from an aggregate period to a six-minute average in order for DEQ and permit holders to use EPA Method 9 for determining compliance.

The proposed change to add a significant figure to the particulate matter standard from 0.1 gr/dscf to 0.10 gr/dscf would align DEQ rules with applicable federal requirements and policies.

What alternatives did DEQ consider, if any?

DEQ considered not amending Oregon's particulate matter standards, but did not pursue this alternative because protecting air quality and supporting economic development are important to Oregon. Most businesses constructed before 1970 have already updated their facilities and now meet the lower particulate matter standards.

DEQ considered phasing out the standards that apply to pre-1970 sources and requiring all sources to meet the post-1970 standard with the addition of a significant digit (0.10 gr/dscf, for example) by Jan. 1, 2020. Based on input from stakeholders suggesting that complying with a limit of 0.10 gr/dscf would present a significant economic hardship, DEQ proposes a different set of standards that will not require any businesses to replace existing equipment or change the type of fuel being used. The proposed changes to the standards are based on well maintained typically available control technology that will minimize particulate matter emissions to the extent practicable with existing equipment.

DEQ considered not amending the averaging time for opacity standards, but did not pursue this alternative because DEQ's ability to enforce the standards is uncertain without a reference test method for demonstrating compliance.

DEQ considered not amending the opacity limits for fugitive emission sources, but did not pursue this alternative because implementation issues would still exist and the proposed new standard will reduce emissions more effectively than would trying to determine compliance with a 20 percent opacity limit.

3. Change permitting requirements for emergency generators and small natural gas or oil-fired equipment: The proposed rules protect public health and the environment. The proposed rules would require facilities to obtain construction approvals or permits when emissions from emergency generators and small natural gas or oil-fired equipment are significant; these units' operations were previously treated as insignificant activities. Oregon's Plant Site Emission Limit rules require DEQ permits to regulate smaller units than EPA requires. EPA requires states to have permitting programs for smaller emission units, but does not specify the details of a minor New Source Review program.

What alternatives did DEQ consider, if any?
DEQ did not consider alternatives because failure to change the permitting requirements would result in small sources potentially violating the internal

4. Establish two new state air quality area designations, "sustainment" and "reattainment," to help areas avoid and more quickly end a federal nonattainment designation; and

combustion engine standards and DEQ rules for operating without a permit.

**5. Designate Lakeview as a state sustainment area while retaining its federal attainment designation:** The proposed rules would designate sustainment and reattainment areas. EPA has no equivalent designations. The changes would protect public health by improving air quality, while improving Oregon's New Source Review Program and increasing DEQ's flexibility in permitting smaller businesses.

What alternatives did DEQ consider, if any? DEQ considered doing nothing, but did not pursue this alternative because EPA, Lakeview and county officials support the new area designations.

**6.** Change the New Source Review preconstruction permitting program: The proposed rules would continue to protect public health and the environment while addressing economic concerns. DEQ's program, although different from EPA's regulations, provides a workable program equivalent to, and in some cases, more stringent than EPA's to accomplish the same Clean Air Act goal of preventing significant deterioration of air quality.

EPA considers DEQ's program substantively equivalent.

- DEQ has separated the New Source Review program for federal major sources from that of minor sources with different requirements for large and small facilities. The program for smaller facilities would be called State New Source Review. This change, along with the designation of sustainment and reattainment areas, would increase DEQ's flexibility in permitting smaller facilities while protecting ambient air quality.
- The proposed rules would create new differences between the Oregon and EPA New Source Review preconstruction programs by defining two new area designations, sustainment and reattainment. These two new designations would help areas avoid exceeding ambient air quality standards and encourage economic development when a nonattainment area has improved air quality.

What alternatives did DEQ consider, if any?

DEQ considered doing nothing, but did not pursue this alternative because the existing preconstruction permitting program essentially creates a construction ban in areas that exceed the ambient air quality standard, but are still designated as attainment areas. The existing rules governing demonstration of net air quality benefit in nonattainment areas are too prescriptive and do not meet the goals of the program.

The following three categories of the proposed rules are not "different from or in addition to federal requirements" and impose stringency equivalent to federal requirements.

**6.** Change the New Source Review preconstruction permitting program: The proposed rules would remove certain Oregon greenhouse gas permitting requirements to align with the 2014 U.S. Supreme Court decision.

What alternatives did DEQ consider, if any?

DEQ considered doing nothing, but did not pursue this alternative because DEQ wanted to provide national consistency for facilities that would have triggered Prevention of Significant Deterioration or a Title V permit for greenhouse gases alone.

**7. Modernize methods allowed for holding public hearings and meetings:** EPA has no rules regarding the technology DEQ uses at public hearings and meetings.

What alternatives did DEQ consider, if any?
DEQ considered doing nothing, but did not pursue this alternative because DEQ's proposal would create economic benefits and improve access to hearings and meetings.

8. Re-establish Heat Smart woodstove replacement program exemption for small commercial solid fuel boilers regulated under the permitting program: Sales of small commercial biomass boilers were inadvertently prohibited in Oregon when EPA amended National Emission Standards for Hazardous Air Pollutants.

What alternatives did DEQ consider, if any? DEQ did not consider alternatives. DEQ's proposal would return the woodstove replacement program to its previous state, before EPA amended the NESHAP.

# 9. Remove annual reporting requirement for small gasoline dispensing facilities

The proposed rules are consistent with the federal gasoline dispensing facility NESHAP that does not require gasoline dispensing facilities with monthly throughput of less than 10,000 gallons of gasoline to submit annual reports.

What alternatives did DEQ consider, if any?

DEQ considered doing nothing, but did not pursue this alternative because annual reports from these small gasoline dispensing facilities are unnecessary and create additional work for regulated parties.

# Request for other options

During the public comment period, DEQ requests public comment on whether to consider other options for achieving the proposed rule's substantive goals while reducing any negative economic impact of the rules on business.

# 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." OAR 340-018-0010

#### 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

- 5 Open Spaces, Scenic and Historic Areas, and Natural Resources
- 6 Air, Water and Land Resources Quality
- 11 Public Facilities and Services
- 16 Estuarial resources
- 19 Ocean Resources
- OAR 340-018-0030 for EQC rules on land-use coordination. Division 18 requires DEQ to determine whether proposed rules would significantly affect land use. If yes, how will DEQ:
  - o Comply with statewide land-use goals, and
  - Ensure compatibility with acknowledged comprehensive plans, which DEQ most commonly achieves by requiring a <u>Land Use Compatibility Statement</u>.
- 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 following proposed rules, listed under the Rules affected, authorities, supporting documents section above, are existing rules that affect programs or activities that the DEQ State Agency Coordination Program considers a land-use program:

OAR 340-210	Source Notification Requirements
OAR 340-216	Air Contaminant Discharge Permits
OAR 340-218	Oregon Title V Operating Permits

The air quality permit programs require that a new business provide a Land Use Compatibility Statement from local government when applying for a permit. This assures that the business has an approved use for the property where it is located. Existing permittees have provided Land Use Compatibility Statements, which are on file with DEQ. This rule proposal does not include any changes to land use procedures in the air quality permitting program.

DEQ's statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules.

- OAR 340-018-0040(1) compliance with statewide planning goals achieved by ensuring compatibility with acknowledged comprehensive plans
- OAR 340-018-0050(2)(a) ensuring compatibility with acknowledged comprehensive plans may be accomplished through a Land Use Compatibility Statement.

# Stakeholder and public involvement

# Advisory committee

DEQ convened a fiscal and economic impact advisory committee on Jan. 23, 2014. DEQ requested the committee provide comments and recommendations on DEQ's draft notice of proposed rulemaking, which included the statement of fiscal and economic impact. DEQ also offered a second opportunity for the fiscal and economic impact advisory committee to provide additional comments or recommendations regarding the fiscal and economic impact of all of the proposed rules when the advisory committee meeting minutes were sent out for approval.

The 12-member committee included representatives from affected businesses, environmental groups and the general public. The committee met once. The committee's recommendations are summarized under the Statement of Fiscal and Economic Impact section above.

#### Roster

Name	Representing
Aubrey Baldwin	Earthrise Law Center
Bart Barlow	Boise Cascade
Peter Brewer	Jeld-Wen
Jess Brown	Collins Pine Company
Tony Flagor	Interfor Pacific
Paul Fouch	Save Our Rural Oregon
Jim Huddleston	Asphalt Pavement Association
Cameron Krauss	Swanson Group
Glen Keown	Columbia Forest Products
Bill Moir	Steam Engineering
Randy Walker	Frank Lumber
Chris Winter	Crag Law Center

DEQ sent advisory committee meeting notifications to all people who signed up for notices described under ORS 192.640, representatives of permit holders, and people subscribed to receive information about the Title V permit program and air quality permits. DEQ sent the meeting notices by email using Oregon's GovDelivery system, a free e-mail subscription service, and posted the announcement on the DEQ website. DEQ mailed a postcard to representatives of permit holders not signed up for email notices.

The committee reviewed the fiscal impact statement, specifically the impact on small businesses. The committee concluded that the proposed rules will have a fiscal and economic impact but found it difficult to assess the extent of the impact. The committee had mixed opinions on whether the rules will have a significant impact on small business although most concluded that the direct impacts would not be significant. Only one committee member suggested that economic impacts on small businesses could be reduced by providing funds such as tax credits or sinking funds. No other committee members offered suggestions.

#### Information meetings

DEQ held stakeholder meetings in Portland, Pendleton, Eugene and Medford in Aug. 2013 for preliminary input on the potential rules. DEQ sent meeting information to all permitted facilities and people who expressed interest in air quality rulemakings. DEQ sent meeting notices by email to permit holders and postcards to permit holders not signed up for email notices. DEQ also sent meeting notices by email using Oregon's GovDelivery system, a free e-mail subscription service that provides subscribers with automatic notices of updates to the Oregon DEQ Web page on topics they select; and posted the announcement on the DEQ website.

In fall of 2013, DEQ called all the businesses DEQ identified as affected by the more stringent particulate standards and offered to meet with them individually. DEQ met with these businesses and some stakeholders, and these businesses also served on the fiscal and economic impact advisory committee.

#### EQC prior involvement

DEQ shares general rulemaking information with EQC through the monthly Directors Report and Information Items. DEQ shared information about this rulemaking with the commission in the February 2014 Director's Report. DEQ also presented information about this rulemaking at the commission's January 2015 meeting.

#### Public notice

DEQ provided Notice of Proposed Rulemaking with Hearing for this rulemaking in the July 1, 2014, Secretary of State *Oregon Bulletin* 

On June 16, 2014, DEQ:

- Posted notice on the DEQ Rulemaking Web page at http://www.oregon.gov/deq/RulesandRegulations/Pages/2014/AQPerm.aspx
- Notified by email:
  - Environmental Protection Agency, Region 10, Seattle
  - 6,763 interested parties through GovDelivery including subscribers of the groups Rulemaking, Title V Permit Program Public, and Air Quality Permits
  - 1,482 representatives of permit holders
  - 20 representatives of source test firms
  - 240 interested parties and stakeholders provided to DEQ by LRAPA
  - 25 fiscal and economic impact advisory committee members, Small Business Compliance Advisory Panel, and interested parties
  - The following key legislators required under <u>ORS 183.335</u>:
    - Senator Michael Dembrow, Chair, Senate Environment and Natural Resources
    - Representative Paul Hovley, Chair, House Energy and Environment
  - The following legislators as interested parties:

- Senator Doug Whitsett
- Senator Betsy Close
- Senator Alan Olsen
- Representative Sherrie Sprenger
- Notified by U.S. Postal Service:
  - o 498 representatives of permit holders not signed up for email notification
  - o 242 interested parties and stakeholders provided to DEQ by LRAPA

DEQ provided legal notice in the following newspapers:

The Oregonian publication date – June 15, 2014

Daily Journal of Commerce publication date – June 16, 2014

DEQ published updates to its proposal after June 16, 2014 as follows:

**Update published July 9, 2014:** DEQ received a request from Neighbors for Clean Air to extend the public comment period, which was scheduled to close on July 31, 2014. DEQ extended the public comment period until Thursday, Aug. 14, 2014 at 5:00 p.m. to provide additional time for comment.

In addition, DEQ received a request from Associated Oregon Industries to increase opportunities for people to attend public hearings. DEQ added Springfield and Pendleton to the July 16, 2014 public hearings. See the Public Hearing section of this document for details.

Considering recent action by the U.S. Supreme Court, DEQ requested public comment on the applicability of Oregon's Prevention of Significant Deterioration requirements and Title V operating permit program requirements for greenhouse gases. DEQ requested public comment on whether Oregon's rules should be retained as they are, revised to agree with the court's ruling, or revised in other ways.

In 2011, the Oregon Environmental Quality Commission adopted Oregon rules equivalent to the U.S. Environmental Protection Agency's greenhouse gas regulations known as the Tailoring Rule. On June 23, 2014, the U.S. Supreme Court invalidated portions of the federal Tailoring Rule. As a result of the court's ruling, industrial sources of air pollution are no longer subject to federal air quality requirements known as Prevention of Significant Deterioration for greenhouse gases alone. In addition, as a result of the court's ruling, industrial sources are no longer subject to federal Title V permitting requirements for greenhouse gases alone. The ruling retains the requirement that industrial sources triggering Prevention of Significant Deterioration for other pollutants and which also emit greenhouse gases are required to perform Best Available Control Technology analysis for greenhouse gases under specific conditions. The court's action does not invalidate any part of Oregon's rules and those rules remain in effect in Oregon.

**Update published July 30, 2014:** DEQ received a request from Associated Oregon Industries to extend the public comment period, which was scheduled to close Aug. 14, 2014. DEQ extended the public comment period until Thursday, Aug. 28, 2014 at 5:00 p.m. to provide additional time for comment.

**Update published Aug. 26, 2014:** DEQ extended the public comment period for OAR 340-200-0020, 340-216-0020, 340-216-8010, 340-216-8020 and 340-224-0010 of Chapter 340 of the Oregon

Administrative Rules from Aug. 28, 2014 to 5:00 p.m. Sept. 15, 2014. DEQ extended the public comment period in anticipation that people would want more time to comment on the greenhouse gas permitting rules in light of recent action by the U.S. Supreme Court described on the next page. DEQ requested public comment on whether Oregon's rules should be retained as they are or revised to agree with the court's ruling. The close of the public comment period for all of the rules in DEQ's initial proposal remained 5:00 p.m., Aug. 28, 2014.

**Update published Sept. 2, 2014:** DEQ received a request from the U.S. Forest Service and Friends of the Columbia Gorge to extend the public comment period, which closed Aug. 28, 2014. DEQ reopened the public comment period for the rulemaking until Monday, Sept. 15, 2014 at 5:00 p.m. to provide additional time for comment.

Close of public comment period

The comment period closed Monday, Sept. 15, 2014, at 5 p.m.

Public hearings and comment

DEQ held one statewide public hearing accessible at the five locations. DEQ initially planned to hold the hearing in Portland, Bend and Medford. DEQ added locations in Springfield and Pendleton to increase opportunities for people to attend. DEQ received public comments from 59 organizations and individuals. Following this section is a summary of comments DEQ received during the public comment period with cross reference to commenter number.

Presiding Officers' Record

#### Hearing

Meeting locations:

#### **Portland**

DEO Headquarters Building, Room EQC A on the 10th Floor, 811 SW Sixth Ave., Portland, OR, 97204

#### **Bend**

DEQ - Bend Regional Office, Conference Room, 475 NE Bellevue Dr., Suite 110, Bend, OR 97701

#### Medford

DEQ - Medford Regional Office, Conference Room, 221 Stewart Ave., Suite 201, Medford, OR 97501

#### **Springfield**

Lane Regional Air Protection Agency, 1010 Main Street, Springfield, OR 97477

#### **Pendleton**

DEQ - Pendleton Regional Office, 800 SE Emigrant, #330, Pendleton, OR 97801

Meeting date: Wednesday, July 16, 2014

Time closed: 7:30 p.m.

Presiding Officer: Gary Andes, senior permit writer, Western Region Salem

Staff presenters: Jill Inahara, rule writer, Program Operations and George Davis, senior permit writer, Northwest Region

The presiding officer convened the hearing and summarized procedures for the hearing including notification that DEQ was recording the hearing. The presiding officer asked people who wanted to present verbal comments to complete, sign and submit a registration form.

According to <u>Oregon Administrative Rule 137-001-0030</u>, the staff presenters summarized the content of the notice given under Oregon Revised Statute 183.335.

Eighteen people attended the hearing. No one presented oral or written testimony at the hearing.

For public comments received by the close of the public comment period, the following table organizes comments into the nine original categories (1 through 9) in which this document describes the proposed rules and additional categories including Greenhouse Gas Permitting Rules (0), Public Notice (10) and Other Comments (11). Each comment is cross referenced to the commenter number. Original comments are on file with DEQ.DEQ's response follows each comment summary. DEQ changed the proposed rules in response to comments as described in the response sections.

## **Summary of Comments and DEQ Responses**

Category 0: Greenhouse gas permitting rules

Special Discussion of Greenhouse Gas (GHG) Rules and Response to Comments

DEQ should keep its current regulations on greenhouse gases for Prevention of Significant Deterioration and Title V. The Supreme Court's decision in UARG does not affect Oregon's ability to regulate sources based on greenhouse gas emissions. DEQ can and should regulate greenhouse gas emissions under its state law authority.

DEQ received comments in this category from commenters 9, 10, 11, 14, 15, 16, 18, 23, 25, 26, 27, 30, 33, 34, 37, 45 and 51 listed in the Commenter section below.

DEQ should revise its rules to reflect the current status of the law, i.e., to clarify that sources cannot trigger Prevention of Significant Deterioration or Title V permitting based solely on their GHG emissions.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 40, 41, 42, 44, 47, 48, 56 and 58 listed in the Commenter section below.

#### Response:

As part of the response to these comments, DEQ is providing a general overview of the greenhouse gas permitting rules and how the Supreme Court decision affects DEQ's permitting program. The purpose of this overview is to help clarify DEQ's responses to comments.

In 2011, EQC adopted rules substantively identical to the federal greenhouse gas permitting rules. The 2014 Supreme Court decision invalidated EPA's authority to impose the federal greenhouse gas permitting requirements. Oregon's rules were not affected by the Supreme Court's decision and remain in effect, whereas for EPA and many states, the Court's ruling took effect immediately. The discrepancy between federal and state requirements created uncertainty for DEQ, the regulated community and public so DEQ recommended and EQC adopted a temporary rule on November 5, 2014 that aligned DEQ's rules with the Supreme Court decision.

In August and September 2014, DEQ requested comments on whether Oregon should change its rules to follow the Supreme Court's ruling or retain those elements that the Court struck down. DEQ received comments supporting both approaches. To help DEQ determine its final proposal, DEQ considered the following question:

Are there significant environmental benefits in keeping the current regulations that make a source subject to Title V permitting and PSD for greenhouse gases alone?

# Title V

Title V is a permitting program required by the Clean Air Act Amendments of 1990. The operating permit

Category 0: Greenhouse gas permitting rules

program streamlines the way federal, state, tribal, and local authorities regulate air pollution by consolidating all air pollution control requirements into a single, comprehensive "operating permit" that covers all aspects of a source's year-to-year air pollution activities. The program is designed to make it easier for sources to understand and comply with control requirements, and results in improved air quality. It does not impose new or additional regulations, and does not make any regulations more stringent.

In Oregon, DEQ's Air Quality program issues two types of permits: Air Contaminant Discharge Permits and Title V permits. The Air Contaminant Discharge Permit program existed before the Title V program was created. When the 1990 Clean Air Act Amendments came into being, DEQ elected to create the Oregon Title V permit program while also retaining the Air Contaminant Discharge Permit program. Two of the main differences between these programs have to do with the sources they apply to and citizen lawsuit provisions, as described below:

Title V	Air Contaminant Discharge Permit
Applies to sources that emit 100 tons per year or more of any regulated air pollutant other than Hazardous Air Pollutants, and to sources that emit 10 tons per year or more of any single Hazardous Air Pollutant or 25 tons per year or more of any combination of Hazardous Air Pollutants.	Applies to sources that emit less than 100 tons per year or more of any regulated air pollutant other than Hazardous Air Pollutants, and to sources that emit less than 10 tons per year or more of any single Hazardous Air Pollutant and less than 25 tons per year or more of any combination of Hazardous Air Pollutants.
Title V has a citizen lawsuit provision which allows citizens to enforce Title V permits by filing a lawsuit if the permitting agency does not appropriately enforce the permit.	There is no citizen lawsuit provision for Air Contaminant Discharge Permits.

Both types of permits perform the same function: they specify the regulations that a permitted source is subject to and how the source must demonstrate compliance with those regulations. Since Title V does not increase the stringency of the regulations, both types of permits are equally stringent. There is no environmental benefit associated with Title V permits above and beyond the benefits of Air Contaminant Discharge Permits and therefore no environmental reason for retaining the provision that makes sources subject to Title V solely on the basis of their greenhouse gas emissions.

# <u>Prevention of Significant Deterioration</u>

Prevention of Significant Deterioration is a pre-construction permitting program that applies to large sources located in attainment or unclassified areas. Since there is no ambient air quality standard for greenhouse gases, all areas are attainment or unclassified for greenhouse gas emissions.

When a source becomes subject to Prevention of Significant Deterioration the source must perform an air quality analysis and a Best Available Control Technology analysis. These analyses must be performed for each pollutant for which the source makes a major modification (defined in the rules). Prevention of Significant Deterioration can be triggered for one pollutant over the federal major source threshold; once triggered, any other pollutants for which major modifications are made are also included in the Prevention of Significant Deterioration permit evaluation.

In Oregon, a source must be classified as a "federal major source" before it can be subject to this requirement. If Oregon follows the Supreme Court's decision, a source could not be classified as a federal

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major source for greenhouse gases alone. If Oregon does not follow the Court's decision, a source could be classified as a federal major source for greenhouse gases alone. The threshold to be a federal major source for greenhouse gases is 100,000 tons per year CO2e; in most cases, the threshold for other pollutants is 250 tons per year.

The table below gives three scenarios for a new or modified facility and illustrates the differences between following or not following the Court's ruling. The differences between the scenarios are noted in bold underlined print.

Scenario A	Scenario B	Scenario C
Oregon does not follow the court's ruling	Oregon <u>follows</u> the Court's ruling	Oregon follows the Court's ruling
Source has GHG emissions <u>over</u> 100,000 tons per year CO2e	Source has GHG emissions <u>over</u> 100,000 tons per year CO2e	Source has GHG emissions <u>less</u> <u>than</u> 100,000 tons per year CO2e
Source does not have other emissions at or over 250 tons per year	Source does not have other emissions at or over 250 tons per year	Source <u>has NOx emissions</u> at or over 250 tons per year
Source has a major modification for GHGs	Source has a major modification for GHGs	Source has a major modification for GHGs
Source has a major modification for NOx	Source has a major modification for NOx	Source has a major modification for NOx
Result of this scenario	Result of this scenario	Result of this scenario
Source <u>is</u> a federal major source because of GHGs.	Source <u>is not</u> a federal major source.	Source <u>is</u> a federal major source because of NOx.
PSD <u>is</u> triggered by the major modifications for GHG and NOx.	PSD <u>is not</u> triggered by the major modifications for GHG and NOx.	PSD <u>is</u> triggered by the major modifications for GHG and NOx.
Air quality analysis <u>is</u> required for NOx.	Air quality analysis <u>is</u> required for NOx.	Air quality analysis <u>is</u> required for NOx.
BACT analysis <u>is</u> required for GHG and NOx.	BACT analysis <u>is not</u> required for GHG and NOx.	BACT analysis <u>is</u> required for GHG and NOx.

In all three scenarios, an air quality analysis for NOx is required. This analysis ensures that air quality will not exceed the ambient air quality standards or Prevention of Significant Deterioration Increments defined in the rules.

In all three scenarios, an air quality analysis for greenhouse gases is not required. There are no ambient air quality standards for greenhouse gases to compare the results to.

Scenario C illustrates the so-called "anyway source." The source is subject to Prevention of Significant Deterioration for a pollutant other than greenhouse gases, but greenhouse gases are also subject. Sources in this scenario would be subject to this requirement regardless of whether Oregon follows the Court's ruling.

Category 0: Greenhouse gas permitting rules

The real difference above is that sources in Scenario B would not be required to perform a Best Available Control Technology analysis for any of the pollutants. The remainder of this discussion examines what that means.

# Quantity of greenhouse gases regulated

In June 2014, the Supreme Court of the United States issued a ruling in the following case:

UTILITY AIR REGULATORY GROUP v. ENVIRONMENTAL PROTECTION AGENCY ET AL. CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 12–1146. Argued February 24, 2014—Decided June 23, 2014

In this ruling, the Supreme Court came to the following conclusions in regard to permitting greenhouse gas emissions:

- The Clean Air Act "neither compels nor permits" EPA to require major emitting facilities to obtain Prevention of Significant Deterioration and Title V permits "on the sole basis" of their greenhouse gas emissions.
- Thus, EPA need not "tailor" the Act's major-source thresholds to avoid an administrative debacle that would result from requiring permits of small, non-industrial facilities, millions of which emit enough CO2 to qualify as "major" sources.
- More importantly, EPA's Tailoring Rule, which rewrote the "major" source applicability thresholds from 250/100 tons per year, as specified in the statute, to 100,000 tons per year, is "impermissible" an exercise of power "beyond the bounds" of the agency's "statutory authority."
- EPA "reasonably interpreted" the Act to require large industrial facilities already subject to Prevention of Significant Deterioration for conventional air pollutants to comply with "best available control technology" standards for greenhouse gases.
- Although Best Available Control Technology for CO2 could require some energy efficiency improvements, EPA's Prevention of Significant Deterioration and Title V Permitting Guidance for Greenhouse Gases also contemplates other, "more traditional end-of-stack Best Available Control Technology technologies."
- The Court's overall conclusion: "EPA's decision to require Best Available Control Technology for greenhouse gases emitted by sources otherwise subject to Prevention of Significant Deterioration review is, as a general matter, a permissible interpretation of the statute."

On pages 9 and 10, the Court's document cited above states that EPA provided the following testimony during the trial:

"... "anyway" sources account for roughly 83% of American stationary-source greenhouse-gas emissions, compared to just 3% for the additional, non-"anyway" sources EPA sought to regulate ...."

DEQ interprets EPA's testimony as follows: 86 percent of the total American stationary-source greenhouse gas emissions could be subject to Prevention of Significant Deterioration if both "anyway" and non-"anyway" sources are regulated; the percentage drops from 86 to 83 percent if non-"anyway" sources are not regulated. DEQ does not believe these percentages can be directly applied to Oregon because the types of emissions sources in Oregon may not reflect national averages, but EPA's estimates

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serve to indicate that the majority of greenhouse gas emissions could still be regulated under Prevention of Significant Deterioration regardless of whether Oregon follows the Court's ruling or not.

Sources become subject to Prevention of Significant Deterioration infrequently and the percentages discussed in the preceding paragraph refer to all of the sources that could potentially, but won't necessarily, become subject.

# Greenhouse gas Best Available Control Technology determinations

The purpose of a Best Available Control Technology analysis is to evaluate emission control options and to determine which, **if any**, must be used. This analysis is often referred to as a "top-down" analysis and consists of the following 5 step process:

- Step 1 Identify all available control options
- Step 2 Eliminate technically infeasible options
- Step 3 Rank the remaining control options
- Step 4 Evaluate economic, energy, and environmental impacts
- Step 5 Select Best Available Control Technology

It is possible the analysis will determine that an emission control system must be installed. It is also possible for the analysis to determine that no emission controls are feasible; this can occur at Step 2 or Step 4. The individual steps are described in more detail below.

In Step 1, all available control options must be identified. The control option has to exist and be commercially available.

In Step 2, the identified options are reviewed and any that are found to be technically infeasible are eliminated. Emission control options are technically feasible if they are in use by other facilities in the same industry or at facilities that have processes that are similar enough to conclude that the emission control will work for the process being considered in the review. If none of the options are technically feasible, the review is done and the determination is no control.

In Step 3, all control options that are considered technically feasible (if any) are ranked by effectiveness, with the most effective ranked first, the next most effective ranked second, and so on to the least effective.

In Step 4, the first-ranked option is reviewed for economic, energy, and environmental impacts. If any of these impacts are found to be unacceptable, that option is rejected and the second-ranked option is reviewed. If the second-ranked option is rejected, then the third-ranked option is reviewed. This "top-down" review continues until an option is found to have acceptable economic, energy, and environmental impacts. It is possible for all options to be rejected.

In Step 5, the Best Available Control Technology is determined to be the highest-ranking option reviewed in Step 4 that is not rejected because of economic, energy, or environmental impacts. If all options are rejected, the determination is no control.

The following review is not a Best Available Control Technology analysis, but is informed by DEQ's knowledge of the process and the greenhouse gas emission control options that are currently available. Greenhouse gas emissions can broadly be divided into two categories: combustion emissions and high global warming potential gases.

Combustion emissions refer to gases emitted by devices that burn fuel. Combustion emissions account for

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most greenhouse gas emissions, are emitted by a large number of sources ranging from large electrical power plants to cars and home furnaces, and consist mostly of carbon dioxide.

High global warming potential gases are typically fluorine-containing gases, such as hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. They have a global warming effect that is hundreds or thousands of times more potent than carbon dioxide. The global warming potential of a gas is a measure of how potent it is compared to carbon dioxide. The global warming potential of sulfur hexafluoride, for example, is 23,900; this means one ton of sulfur hexafluoride has the same effect as 23,900 tons of carbon dioxide. High global warming potential gases are used as process gases in only a few industries, including the semiconductor manufacturing industry.

According to EPA's website (http://epa.gov/climatechange/ghgemissions/gases/fgases.html) perfluorocarbons are compounds produced as a by-product of various industrial processes associated with aluminum production and the manufacturing of semiconductors. They generally have long atmospheric lifetimes and high global warming potentials. Sulfur hexafluoride is used in magnesium processing and semiconductor manufacturing, as well as a tracer gas for leak detection. HFC-23 is produced as a by-product of HCFC-22 production.

#### Combustion greenhouse gases:

With respect to combustion emissions, greenhouse gas emission control options are very limited. There are no emission control devices for greenhouse gases. One option is underground sequestration of carbon dioxide. This involves injecting the carbon dioxide deep into the ground. This option would only be effective if the geological formation would permanently trap the gases underground, either by chemical reaction or by effectively sealing off the gases so they could not percolate upward. If neither of these conditions can be met, the gases will eventually leak back into the atmosphere. This technology is believed to be feasible, but the necessary geological formations are not available everywhere, so sequestration is not a broadly available option. Underground sequestration is illegal in Oregon because injecting wastes underground is prohibited by the underground injection control rules (OAR Chapter 340 Division 44) administered by DEQ's water quality permitting program.

The most viable option for reducing greenhouse gas emissions is to simply burn less fuel; this means using energy-efficient equipment so that less fuel can be burned for the desired output. Energy efficiency is generally regarded as the Best Available Control Technology for combustion greenhouse gases. Energy represents a major on-going operating cost for many industries. Most are likely to install energy-efficient equipment regardless of whether Oregon follows the Court's ruling.

In summary, there are limited Best Available Control Technologies to reduce combustion greenhouse gas emissions beyond increasing energy efficiency, and businesses may seek ways to increase energy efficiency voluntarily.

#### Non-combustion greenhouse gases:

With respect to high global warming potential gases, the industry of greatest interest in Oregon is the semiconductor industry. EPA has worked with the U.S. Semiconductor Industry Association in their voluntary efforts to reduce high global warming potential greenhouse gas emissions by following a pollution prevention strategy. As far back as 1996, Intel and the U.S. Semiconductor Industry Association formalized an early voluntary commitment for perfluorocarbon reduction in a memorandum of understanding with EPA. Intel met the goal to reduce company-wide absolute perfluorocarbon emissions 10% below 1995 levels by the year 2010 in spite of the fact that manufacturing volumes have increased roughly fourfold since 1995.

Category 0: Greenhouse gas permitting rules

Reductions were accomplished in part by process changes, partly by using different gases, and partly by the use of greenhouse gas emission control devices, known as point of use devices. For this industry, there is an actual emission control option that could be considered in a Best Available Control Technology analysis. Since point of use devices are the only option DEQ is aware of, a Best Available Control Technology analysis would be limited to considering that single option. Because point of use devices are available and in use, they cannot be rejected on the grounds of being technically infeasible. DEQ has not done a cost analysis, but it appears that such devices are cost-effective and do not have excessive environmental or energy impacts. It's likely that point of use devices would be considered the Best Available Control Technology, but since they are already in use, a Best Available Control Technology analysis would likely conclude a source should "continue doing what you're already doing; that is, continue using point of use devices."

In summary, for the semiconductor industry, a greenhouse gas Best Available Control Technology analysis would likely result in no change from current greenhouse gas emission control practices.

# Non-greenhouse gas Best Available Control Technology determinations

When Prevention of Significant Deterioration is triggered, all pollutants for which a major modification has been made become subject to it. That is why air quality and Best Available Control Technology analyses are required for NOx as well as greenhouse gases in Scenarios A and C. In Scenario B, which represents the case of non-"anyway" sources if Oregon follows the Court's ruling, Best Available Control Technology determinations would not be required for any pollutants.

In Scenario A where Oregon would not follow the Court's ruling, DEQ estimates there is likely little to be gained from Best Available Control Technology determinations for greenhouse gases. But emission control devices or methods do exist for other pollutants and are in common use, so such determinations for non-greenhouse gas pollutants could result in lower emissions of those pollutants. Thus, the environmental benefit of not following the Court's ruling pertains mostly to pollutants other than greenhouse gases since Best Available Control Technology would be required for these other pollutants but would not be required in Scenario B. The question here is whether or not the additional analyses for non-greenhouse gas pollutants would have a significant environmental benefit.

First, DEQ estimates that the majority of sources that could be subject to Prevention of Significant Deterioration will be "anyway" sources, and therefore would be subject to it regardless of whether or not Oregon follows the Court's ruling. This is borne out by a review of Prevention of Significant Deterioration permit applications received since greenhouse gases became regulated on May 1, 2011. Since then, six sources have triggered this process for greenhouse gases; of these, four were "anyway" sources and two were non-"anyway" sources.

Second, an air quality analysis¹ is required for all emission increases of a Significant Emission Rate² or more, regardless of whether or not Oregon follows the Court's ruling. The air quality analysis ensures that impacts from emissions will not cause a significant adverse impact on air quality. There would not be a direct requirement to install emission control equipment for sources that do not trigger Prevention of Significant Deterioration but the air quality analysis can indirectly have that result. If a source's impacts are over the allowed levels, the source could install emission control equipment to reduce the air quality impact if it wanted to go forward with the project.

<sup>&</sup>lt;sup>1</sup> An air quality analysis is required for criteria pollutants, for which there are ambient air quality standards. For pollutants such as greenhouse gases, for which there are no ambient air quality standards, an air quality analysis is not required.

<sup>&</sup>lt;sup>2</sup> Significant Emission Rate is pollutant-specific and ranges from 10 tons per year for PM2.5 to 100 tons per year for CO.

Category 0: Greenhouse gas permitting rules

The purpose of the greenhouse gas rules is to regulate greenhouse gases, not other pollutants. While there could be environmental benefits from requiring Best Available Control Technology analyses for non-greenhouse gas pollutants at non-"anyway" sources, there is no demonstrated need to require those additional analyses.

The majority of sources that could be subject to Prevention of Significant Deterioration are the "anyway" sources, which will be regulated regardless of whether or not Oregon follows the Court's ruling. The requirement to perform an air quality analysis applies in both cases, and serves to demonstrate that air quality will not be significantly adversely affected. There is no demonstrated need to perform the additional analyses that could be required by Oregon's rules if Oregon does not align with the Court's ruling.

The following six Oregon facilities are the only currently known facilities that have greenhouse gas emissions exceeding the Title V and Prevention of Significant Deterioration threshold of 100,000 tons per year. None of these facilities emit other regulated pollutants at levels that require a Prevention of Significant Deterioration permit; Intel and Oregon LNG emit, or could emit, other pollutants at levels that require a Title V permit. All of these facilities are currently regulated under Air Contaminant Discharge Permits except for Owens Corning whose Title V permit was recently issued.

Industry	Facility	Application Status
Semiconductor manufacturer	Intel Hillsboro and Aloha	Submitted Title V permit application, on hold pending issuance of NSR permit.  Submitted NSR permit application. Prevention of Significant Deterioration application not required under temporary rule
Semiconductor manufacturer	On Semiconductor Gresham	and proposed permanent rule.  Title V permit application for greenhouse gases not required under temporary rule and proposed permanent rule.
Fertilizer and nitric acid manufacturing	Dyno Nobel St. Helens	Submitted Title V permit application, not required under temporary rule and proposed permanent rule, on hold pending permanent rule adoption
Liquefied natural gas exporting	Oregon LNG Warrenton	Submitted Prevention of Significant Deterioration permit application for greenhouse gases alone, not required under temporary rule and proposed permanent rule, on hold pending permanent rule adoption. Title V application required one year after startup.
Ethanol production	Cascade Kelly Holdings Clatskanie	Title V permit application for greenhouse gases not required under temporary rule and proposed permanent rule.
Extruded polystyrene foam manufacturing	Owens Corning foam insulation plant NE Portland- Troutdale	Submitted Title V permit application, Title V permit issued

Category 0: Greenhouse gas permitting rules

# Conclusion

Based on the discussion above, there is little environmental benefit to be gained by making non-"anyway" sources subject to Title V and Prevention of Significant Deterioration for greenhouse gases. DEQ recommends the EQC adopt the proposed rule amendments in Attachment A as part of chapter 340 of the Oregon Administrative Rules.

Category 1: Clarify and update air quality rules

1.1 The commenter requests that DEQ incorporate the recent holdings of the Sixth Circuit and the D.C. Circuit defining the term "adjacent." In 2012, the Sixth Circuit rejected EPA's position that a determination of whether two facilities are "adjacent" rides in material part on whether those facilities are interdependent. Instead, the Sixth Circuit held that it was unreasonable to read the term "adjacent" to refer to interdependence as opposed to simply physical proximity. We urge DEQ to revise its definition of "adjacent" to read "two facilities that are nearby each other" and to eliminate the suggestion that interdependence is an appropriate criterion for evaluating adjacency.

DEQ received comments in this category from commenters 12 and 44 listed in the *Commenter section* below.

# Response:

DEQ has implemented the definition of "adjacent" as meaning interdependent facilities that are nearby to each other for many years. In cases where two facilities have been considered a single source, the decision made used interdependent in the majority of those cases. DEQ is concerned about undoing those decisions. The Clean Air Act's savings clause makes clear that states may regulate above and beyond federal standards. 42 U.S.C. § 7416 (stating that "[n]othing in this chapter shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants or (2) any requirements respecting control or abatement of air pollution; except that if an emission standard or limitation is in effect under an applicable implementation plan" the state standard must be more stringent than federal requirements). Essentially, the federal standards are a floor and not a ceiling, and states have the discretion to impose more stringent limitations. Thus while the CAA limits the scope of EPA's authority, it reserves broad authority to the states to impose more stringent limitations.

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

The commenter is concerned over the addition of the definition for "day," which the proposed rulemaking defines as "a 24-hour period beginning at 12:00 a.m. midnight." Many of our facilities measure a production day based on shift schedules, which may start anywhere from 6:00 a.m. to 8:00 a.m., and occur on an 8-hr, 10-hr, or 12-hr rotational basis. The commenter requests that DEQ remove the proposed rule language for "day."

DEQ received comments in this category from commenter 48 listed in the *Commenter section* below.

#### Response:

DEQ agrees with the commenter and changed the proposed rules to allow for "day" to also be defined in a permit.

1.3 "Fuel Burning equipment" has long been defined, somewhat counter-intuitively, as exclusively fuel burning equipment producing heat or power by indirect heat transfer, i.e., boilers. DEQ proposes to change that definition to include dryers and process heaters, resulting in the sulfur dioxide standards becoming applicable requirements for these newly covered units. Unless DEQ intended to change the applicable requirements, OAR 340-228-0200 should be revised to specify that it only applies to fuel burning equipment producing heat or power by indirect heat

Category 1: Clarify and update air quality rules

transfer.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48, and 58 listed in the *Commenter section* below.

## Response:

DEQ agrees with the comment and changed the proposed rule to retain the meaning of "fuel burning equipment." However, "fuel burning equipment" was defined in three different divisions of OAR 340, and each definition was different from the others. DEQ determined the definition formerly in OAR 340 division 228 best describes "fuel burning equipment" and this definition has been moved from OAR 340 division 228 to OAR 340 division 200. DEQ deleted the other definitions. DEQ added the term "internal combustion engine" in the definition of "fuel burning equipment," and added a definition of "internal combustion engine" to OAR 340 division 200.

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

DEQ must revise its regulations regarding Significant Impact Levels for PM2.5 (OAR 340-200-0020) to maintain consistency with EPA's regulations and federal case law.

In 2010, EPA established Significant Impact Levels for PM2.5 to determine whether a new source may be exempt from certain requirements under the Prevention of Significant Deterioration program. EPA described a Significant Impact Level as a numeric value that represents the level of ambient impact below which EPA has determined a source will have an insignificant effect on ambient air quality. Thus EPA reasoned that if a new or modified source demonstrates its impact does not exceed a Significant Impact Level at the relevant location, it may be exempt from the extensive air analysis and modeling required to show its additional emissions will not cause or contribute to a violation of the National Ambient Air Quality Standards.

In January 2013, the D.C. Circuit Court of Appeals vacated and remanded EPA's regulations at 40 C.F.R. §§ 51.166(k)(2) and 52.21(k)(2). Sierra Club argued that proposed sources in an area on the verge of violating the National Ambient Air Quality Standards or an increment could violate the National Ambient Air Quality Standards or an increment even if the resulting emission levels would fall below the Significant Impact Level. As a result, EPA amended its regulations to remove the vacated PM2.5 significant impact levels. DEQ must likewise revise its rules to maintain consistency with the federal regulations and the decision by the D.C. Circuit Court of Appeals.

DEQ received comments in this category from commenter 40 listed in the *Commenter section* below.

#### Response:

DEQ is aware of the D.C. Circuit Court of Appeals decision to vacate and remand EPA's regulations at 40 C.F.R. §§ 51.166(k)(2) and 52.21(k)(2), the Significant Impact Levels for PM2.5. DEQ worked closely with EPA Region 10 to address the problem of proposed sources in an area on the verge of violating the National Ambient Air Quality Standards or an increment that could violate the standards or an increment even if the resulting emission levels would fall below the Significant Impact Levels.

Category 1: Clarify and update air quality rules

Because the CAA's Prevention of Significant Deterioration provisions require a demonstration that the source will not cause or contribute to a violation of the National Ambient Air Quality Standards or increment as a precondition to construction, 42 U.S.C. § 7475(a)(3), DEQ has added the following or similar language to OAR 340-202-0050(2) Purpose and Scope of Ambient Air Quality Standards, 340-224-0070(3)(c) Prevention of Significant Deterioration Requirements for Sources in Attainment or Unclassified Areas, 340-224-0245(4) Requirements for Sources in Sustainment Areas in State New Source Review, 340-224-0260(2)(d)) Requirements for Sources in Maintenance Areas in State New Source Review, 340-224-0270(1)(d) Requirement for Sources in Attainment and Unclassified Areas in State New Source Review, and 340-225-0060(2)(c) Requirements for Demonstrating Compliance with Standards and Increments in Prevention of Significant Deterioration Class I Areas:

"No source may cause or contribute to a new violation of an ambient air quality standard or Prevention of Significant Deterioration increment even if the single source impact is less than the significant impact level."

If a source's impacts are less than the significant impact level, DEQ would ensure that a new violation of an ambient air quality standard or Prevention of Significant Deterioration increment does not occur by adding the following rule language:

340-225-0050

Requirements for Analysis in Prevention of Significant Deterioration Class II and Class III Areas

Modeling: For determining compliance with the AAQS, Prevention of Significant Deterioration increments, and other requirements in Prevention of Significant Deterioration Class II and Class III areas, the following methods must be used:

- (1) For each regulated pollutant, a single source impact analysis is sufficient to show compliance with the AAQS and Prevention of Significant Deterioration increments if:
- (a) The modeled impacts from emission increases equal to or greater than a SER above the netting basis due to the proposed source or modification being evaluated are less than the Class II significant impact levels specified in OAR 340-200-0020; and
- (b) The owner or operator provides an assessment of factors that may impact the air quality conditions in the area to show that the SIL by itself ensures that the proposed source or modification will not cause or contribute to a new violation of an AAQS and Prevention of Significant Deterioration increment. The assessment must take into consideration but is not limited to the following factors:
- (A) The background ambient concentration relative to the AAQS;
- (B) The emission increases and decreases since the baseline concentration year from other sources that are expected to cause a significant concentration gradient in the vicinity of the source. Determination of significant concentration gradient may take into account factors including but not limited to ROI formula, spatial distribution of existing emission sources, topography, and meteorology.

The rules would require sources to show that the SIL by itself is protective of ambient air quality standards and Prevention of Significant Deterioration increments. If it is not, the source

Category 1: Clarify and update air quality rules

will be required to complete a competing source analysis which involves modeling all the sources in the area that consume part of the airshed.

DEQ monitors ambient air quality in areas where air quality is approaching standards. To address the concern that a permitting authority could authorize numerous sources as de minimis that in reality would have a cumulative impact in violation of the National Ambient Air Quality Standards or an increment under EPA's policy, DEQ uses ambient monitoring data that measures background concentration. Ambient concentrations from emissions from all sources, including large and small industrial sources, mobile sources, off road sources, wildfires, and open burning contribute to the background concentration measured at the monitoring site. Even though some sources will not be required to perform an individual ambient air quality analysis because their emissions are less than the thresholds required for such an analysis, DEQ will carefully scrutinize smaller sources in areas where the air quality is close to the standards. After these sources are constructed, their emissions will be included in the background concentration measured by the monitors but until then, DEQ will analyze their emissions in relation to the background concentration to ensure that a violation of the National Ambient Air Quality Standards or Prevention of Significant Deterioration increment does not occur.

The PM2.5 significant impact levels are an important tool when determining whether a single source impact analysis is sufficient or whether a competing source analysis should be required, especially in areas where background concentrations are not close to ambient air quality standards. To address cases when the area is close to violating an ambient air quality standard, DEQ proposes rules to address the problem of new or modified sources in an area on the verge of violating the National Ambient Air Quality Standards or an increment even if the resulting emission levels would fall below the SIL. In those areas, the source would not be allowed to construct or modify if impacts were below the SIL and the National Ambient Air Quality Standards or increment would be violated.

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

DEQ should revise the definition of significant impairment to include impacts to other Air Quality Related Values pursuant to recommendations from the federal land manager and the Federal Land Mangers' Air Quality Related Work Group Report. Revise to clarify relationship between "significant impairment" and "adverse impacts" as defined by the National Scenic Area Act.

DEQ received comments in this category from commenter 24 listed in the *Commenter section* below.

# Response:

DEQ appreciates the comments received. However, the issues raised are outside the scope of the public notice published for this rulemaking and cannot be considered at this time. To explore the issues raised would likely require considerable agency resources and stakeholder input.

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

1.6 Crater Lake National Park was established in 1902 by Public Law 32 Stat. 20. The park currently has no designated wilderness, so Public Law 88-577 does not apply. Also, deleted and

	Summary of Comments and DEQ Responses	
	Category 1: Clarify and update air quality rules	
	expanded in the 1990 Clean Air Act Amendments. Crater Lake's last boundary expansion occurred in 1980 under Public Law 96-553.	
	DEQ received comments in this category from commenter 39 listed in the <i>Commenter section</i> below.	
	Response:	
	DEQ determined the Public Law is 32 Stat. 202. DEQ changed the proposed rules in response to this comment.	
1.7	DEQ should revise the rule language to acknowledge any change to Prevention of Significant Deterioration area boundaries that may occur subsequent to August 7, 1977 or November 15, 1990.	
	DEQ received comments in this category from commenter 24 listed in the <i>Commenter section</i> below.	
	Response:	
	Clean Air Act section 164 (42 USC section 7474) requires areas designated by states as Class I areas to "conform to any changes in the boundaries of such areas which have occurred subsequent to August 7, 1977, or which may occur subsequent to November 15, 1990." DEQ must keep designations of Class I areas current with the current wilderness and national park boundaries but cannot adopt a prospective rule to incorporate future boundary changes. DEQ proposes to update the rule to incorporate any boundary changes that have occurred between August 7, 1977 and the EQC adoption date of this rule.	
	DEQ agrees with the commenter and changed the proposed rules in response to this comment.	
1.8	The rules currently provide the permittee 10 working days from the close of the public comment period in which to provide a written response to comments submitted by the public. DEQ has repeatedly been unable to provide copies of the comments submitted in a timely manner, forcing the source to either give up its right of rebuttal or postpone issuance of its permit by several more weeks.	
	DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48, 57, and 58 listed in the <i>Commenter section</i> below.	
	Response:	
	DEQ changed proposed revisions to OAR 340-208-0080(3) to require applicants to submit a written response to any comments submitted by the public within 10 working days after DEQ provides the applicant with a copy of all written comments received by DEQ.	
	DEQ agrees with the commenter and changed the proposed rules in response to this comment.	
1.9	DEQ is proposing to modify OAR 340-208-0450, the prohibition on depositing particulate larger than 250 microns on the property of another, in such a manner to undo the revisions that AOI and DEQ worked so hard to develop a dozen years ago. DEQ should simply eliminate OAR 340-208-0450. The rule is not part of the SIP and is both outdated and irrelevant. It is a rule that prohibits particulate of a size that is not respirable and poses no health threat. If this rule is purely aimed at nuisance particulate, then it is duplicative of OAR 340-208-0300. If	

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OAR 340-208-0450 is retained, then it should not be changed.

In 2001, DEQ worked with AOI to address the issue of how Title V sources can certify compliance with OAR 340-208-0450. As DEQ acknowledged, a single wood chip bouncing across a property line and onto a public road could cause a source to have to certify noncompliance. DEQ agreed to change the rule to say that there was only noncompliance if DEQ informed the source that a nuisance was being created. The new proposed language completely reverses that agreed upon approach and returns the rule to its unworkable form of 12 years ago. In addition, the changes increase the stringency as the current language includes the concept of duration and quantity--language that DEQ proposes to delete.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48, and 58 listed in the *Commenter section* below.

# Response:

While AOI and DEQ may have negotiated the current language in 2001, the current language creates a problem of enforceability.

#### The current rule states:

"No person may cause or permit the emission of particulate matter larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon the real property of another person when notified by the department that the deposition exists and must be controlled."

The phrase "when notified by the department that the deposition exists and must be controlled" was added in 2001. This phrase results in an unusual rule that can be interpreted as follows: a source can only be in violation of this rule after DEQ staff inform the source that the deposition exists and must be controlled. In other words, any occurrences of the deposition that occur before DEQ staff have informed the source that the deposition exists and must be controlled cannot be cited as violations of this rule. There are few, if any other rules in divisions 200 through 268 that operate in this unusual manner. Normally, a rule itself serves as the notification that a certain activity or emission is not allowed, and DEQ does not have to provide a second notification before it can cite a facility for a violation of a rule. DEQ can see no reason why OAR 340-208-0450 should not operate in the same manner.

DEQ recognizes that a source may not be aware that it has created an observable deposition upon another's real property and may therefore incorrectly certify compliance with the rule. But this problem is not unique to this rule, and does not justify the unusual requirement to give a second notice before a violation can be cited. For example, a facility may exceed an opacity standard, but if the exceedance is not observed by anyone, then a facility may in this instance also incorrectly certify compliance with the standard. In both of these cases, the key concept is that compliance or noncompliance with a rule or standard is verified by observation (i.e. monitoring).

DEQ agrees that this rule is directed at addressing nuisances, but DEQ does not agree that this rule is duplicative of OAR 340-208-0300, which states in part that "No person may cause or allow air contaminants from any source subject to regulation by the department to cause a nuisance." OAR 340-208-0300 prohibits causing a nuisance, but does not define nuisance. Unlike OAR 340-208-0300, OAR 340-208-0450 specifically addresses the emission of

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particulate matter larger than 250 microns in size, such that an observable deposition is created upon the real property of another person. When DEQ revised the nuisance control rules, OAR 340-208-0300 and 340-208-0450 in 2001, a request was received to repeal the 250 micron rule altogether. DEQ's response was:

"This rule has been enforced in the populous counties of the Willamette Valley since the late 1960s, and permitted sources have been able to comply with the rule without significant difficulty. It was originally established to denote the transport of large particles from a well-run operation. Larger particles fall out quickly, and evidence of a deposition of particles greater than 250 microns at the property line indicates a failure of equipment or processes to adequately manage their discharge. Materials that commonly trigger this standard include sawdust and paint overspray.

The rule provides a readily usable tool to address complaints caused by particle fallout and avoid the entanglement of addressing fallout as a nuisance. The rule is employed on a complaint driven basis and is invoked by Department staff when the sources are readily identifiable and controls are readily available. The Department continues to recommend extending the rule to statewide applicability, but modified the proposal to incorporate enforcement judgment by staff as the standard for a violation."

DEQ originally proposed to delete "at sufficient duration or quantity" from the rule language since these terms are nowhere defined. Upon further discussion, DEQ now proposes to leave "at sufficient duration or quantity" in the rule because it helps define "an observable deposition." DEQ would take into consideration both duration and quantity when determining whether to take enforcement action.

DEQ agrees with some of the commenters and changed the proposed rules in response to this comment.

DEQ changed the proposed rule to provide clarification.

1.10 OAR 340-210-0205(2)(e) should be revised to clarify that it is not just any NSPS or NESHAP that makes a categorically insignificant activity subject to the state NOC program, but only those NSPS and NESHAP that DEQ has adopted. If DEQ has chosen not to adopt an NSPS or NESHAP, that NSPS or NESHAP should not force the otherwise categorically insignificant activity to obtain a state construction approval. That source will have to comply with the federal notice provisions under the NSPS and NESHAP program, but should not have to comply with Division 210.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48, and 58 listed in the *Commenter section* below.

#### Response:

The exemption for categorically insignificant activities from the Notice of Construction program unless the activity is subject to a New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants has been in OAR 340-210-0205(2) since 2001. DEQ has adopted or is in the process of adopting all the NSPSs and NESHAPs that EPA allows to be delegated. Therefore, categorically insignificant activities subject to a NSPS or NESHAP will continue to be subject to the notice of construction program.

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

DEQ should not make changes to the language of OAR 340-210-0225(1)(c), (2)(c) and (3)(b). The proposed rule appears to alter the requirements of the construction approval process. DEQ proposed rules are considerably more stringent because they eliminate the ability of a source to net any increase against any decreases associated with the project. This existing provision to allow internal netting has been the most successful aspect of Oregon's air permitting program in allowing sources to avoid lengthy and costly permitting processes through removal of old emissions units to allow installation of new, cleaner emitting units. A source replacing a flare with 50 tons per year of CO emissions with another flare with 50 tons per year of CO emissions should be able to conclude that there is at best a de minimis increase of emissions rate. The proposed language would eliminate this flexibility.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48, and 58 listed in the *Commenter section* below.

# Response:

DEQ determined the intent of OAR 340-210-0225(1)(c), OAR 340-210-0225(2)(c) and OAR 340-210-0225(3)(b) was unclear to facilities and proposed changes to these rules in order to clarify the original intent. Part of the current rule is copied below.

- (1) Type 1 changes include construction or modification of stationary sources or air pollution control equipment where such a change:
- (a) Would not increase emissions above the Plant Site Emission Limit by more than the de minimis levels defined in OAR 340-200-0020 for sources required to have a permit;
- *(b)* ...;
- (c) Would not increase emissions from any stationary source or combination of stationary sources by more than the de minimis levels defined in OAR 340-200-0020;
- (d) ...; and
- (e) ....

Note that subsection (a) addresses how much the change increases emissions above the Plant Site Emission Limit, while (c) addresses how much the change increases emissions from "any stationary source or combination of stationary sources." DEQ's intent in drafting this rule in 2001 was that subsection (c) considers only the equipment that is actually being modified or installed, in isolation from all other changes. While subsection (a) of the rule was intended to take netting into account, subsection (c) was never intended to take netting into account.

For example, a facility may make a change to a piece of equipment that is expected to change emissions from that piece of equipment by less than the de minimis amount, and the criteria of both (a) and (c) will be met. However, if a piece of equipment that emits 2 tons per year (i.e. more than de minimis) is replaced with an identical piece of equipment that also emits 2 tons per year, then the criterion in (a) is met because the net increase in emissions is zero, but the criterion in (c) is not met because the new piece of equipment has emissions greater than de minimis.

DEQ determined criterion (c) was unclear and the proposed changes are intended to clarify the

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original intent. DEQ proposed the changes to OAR 340-210-0225(2)(c) and OAR 340-210-0225(3)(b) for the same reason.

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

1.12 DEQ should not regulate non-stationary sources. DEQ has no jurisdiction to require that the Notice of Construction program be applied to non-stationary sources such as non-road engines, unless they remain stationary long enough to convert to being stationary sources. There is no definition of a "portable source" either in the current or proposed regulation. We request that DEQ either delete proposed source category 89, which would apply to any portable sources DEQ determines present "an air quality concern," "significant malodorous emissions," or actual emissions over specified levels, entirely or revise it to make clear that it only applies to portable sources that are or are part of a stationary source.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48, 57, and 58 listed in the *Commenter section* below.

#### Response:

The Clean Air Act preempts states from adopting motor vehicle standards and most standards for non-road engines, including ships and locomotive. There are some exceptions in both categories for California to adopt standards and other states to copy those. The definition of "source" in OAR 340-200-0020 includes only a "building, structure, facility, installation or combination thereof," none of which is such a mobile source. The definition of "stationary source" in that rule also mimics that language. There is no federal preemption of DEQ's authority to regulate portable sources—those stationary sources that are capable of being moved from one fixed operating location to another. DEQ has the authority to regulate portable sources under ORS 468A.040 and offers the flexibility for portable sources to get a single permit usable wherever they set up the source, instead of requiring a new permit every time they want to operate in a different location. DEQ proposes to clarify the language regarding portable sources by describing such sources as "stationary sources that are both portable and permanently located" in the following source categories in OAR chapter 340, division 216, and:

# Basic Permits:

6. Rock, concrete or asphalt crushing stationary sources that are both portable and permanently located

# General, Simple, Standard Air Contaminant Discharge Permits:

- 8. Asphaltic concrete paving stationary sources that are both portable and permanently located
- 70. Rock, concrete or asphalt crushing stationary sources that are both portable and permanently located 25,000 or more tons/yr. crushed
- 76. Soil remediation stationary sources that are both portable and permanently located

DEQ proposes to clarify that permits are required for portable sources in the following source categories:

# Basic Permits:

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2. Concrete manufacturing including redimix and CTB stationary sources that are both portable and permanently located, more than 5,000 but less than 25,000 cubic yards per year output.

# General, Simple, Standard Air Contaminant Discharge Permits:

24. Concrete manufacturing including redimix and CTB, stationary sources that are both portable and permanently located, 25,000 or more cubic yards per year output.

DEQ proposes to add a catch-all category for portable sources, similar to catch-all in categories 84 and 85:

- 89. All other portable sources not listed herein for which DEQ determines that:
  - (a) An air quality concern exists;
  - (b) The source would emit significant malodorous emissions; or

The source would have actual emissions, if the source were to operate uncontrolled, of 5 or more tons per year of direct PM2.5 or PM10 if located in a PM2.5 or PM10 non-attainment or maintenance area, or 10 or more tons per year of any single criteria pollutant if located in any part of the state.

To further clarify, DEQ is proposing a definition of "portable." This definition comes from the California Air Resources Board's "Regulation to Establish a Statewide Portable Equipment Registration Program" (CCR Title 13 Section 2450-2465, September 17, 1997) which is also referenced by EPA:

"Portable" means designed and capable of being carried or moved from one location to another. Indicia of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

DEQ agrees with some of the commenters and changed the proposed rules in response to this comment.

1.13 The proposed list of source categories that require an Air Contaminant Discharge Permit creates problems. The source category number 87 on Part B of the list would apply to certain emergency generators and firewater pumps, i.e., those with "emissions, in aggregate, greater than 10 tons for any regulated pollutant based on 100 hours of operation or some other hours of operation specified in a permit." Comparing emergency unit emissions to an artificially high 100 hours of operation threshold could needlessly subject many sources with inconsequential actual emissions from these units to permitting requirements. DEQ should change the permitting threshold such that permits would only be required for "emergency generators and firewater pumps, the actual emissions from which over a calendar year, in aggregate, are greater than 10 tons for any regulated pollutant."

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 43, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

DEQ has recently required data centers to obtain permits. These data centers are equipped with a large backup generator capacity powered by emergency engines. DEQ

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required permits under current permit category 85 in division 216, Table 1, Part B, which reads:

All Other Sources not listed herein that would have actual emissions, if the source were to operate uncontrolled, of 5 or more tons a year of PM10 if located in a PM10 non-attainment or maintenance area, or 10 or more tons of any single criteria pollutant in any part of the state. DEQ required these facilities to estimate their emissions based on the 100 hours of readiness and testing operation allowed by the NSPS and NESHAP requirements.

DEQ was also motivated by the fact that the engines at these facilities were subject to the RICE NSPS and NESHAP requirements, and reasoned that such significant groupings of emergency engines should have permits and be subject to DEQ inspection to insure compliance with the NSPS and NESHAP requirements.

Upon reconsideration of this proposed permitting category, DEQ also took into consideration the comment on the proposed change to category (uu) in categorically insignificant activities that owners and operators of emergency engines have no reason to operate the engines for the full 100 hours per year specified in the NSPSs and NESHAP. However, DEQ also took into consideration that the real environmental concern over data centers and other sources with large backup generating capacity is their short term emissions. During an actual power outage, many or all of the emergency engines at these sources will be operated, resulting in short term emissions equivalent to the short term emissions of much larger sources. Although DEQ does not regulate the emergency operation of these engines, one of DEQ's goals is to ensure that emissions are minimized during emergency operation by proper maintenance of the engines.

As discussed in response 3.2, DEQ determined it is possible to establish a simple aggregate horsepower threshold level for this permitting category, rather than requiring all potentially affected sources to calculate their emissions or obtain a permit for the purpose of being able to specify some number of readiness and testing hours other than 100 hour per year. The approach used to calculate a threshold horsepower level for permitting is similar to the approach used to calculate a threshold horsepower level for categorically insignificant activities.

DEQ conservatively estimated the default maximum aggregate horsepower as explained below.

DEQ used the uncontrolled diesel engine nitrogen oxides emission factor of 0.024 lb/hp-hr from AP-42, Table 3.4-1, and

DEQ used 28 hours per year of operation for testing and maintenance, determined as described in response 3.2 on categorically insignificant activities.

Based on the above, the permitting threshold based on the aggregate horsepower rating of the source is:

 $10 \text{ ton/yr } \times 2000 \text{ lb/ton } / (0.024 \text{ lb/hp-hr } \times 28 \text{ hr/yr}) = 29,762 \text{ hp (rounded to } 30,000)$ 

DEQ notes that several data centers have already been issued permits. The data center with the least emergency generating capacity has an aggregate rating of 22,500 kilowatts. Assuming 85 percent efficiency converting engine power to electricity, this is equivalent to

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approximately 35,500<sup>1</sup> horsepower. Therefore the data centers already permitted will be required to have a permit under the proposed permitting threshold as well.

The final proposed revision to division 216, Table 1, Part B, category 87(a) is:

- 87 Stationary internal combustion engines if:
- (a) For emergency generators and firewater pumps, the aggregate engine horsepower rating is greater than 30,000 horsepower; or
- (b) For any individual non-emergency or non-fire pump engine, the engine is subject to 40 CFR part 63, subpart ZZZZ and is rated at 500 horsepower or more, excluding two stroke lean burn engines, engines burning exclusively landfill or digester gas, and four stroke engines located in remote areas; or
- (c) For any individual non-emergency engine, the engine is subject to 40 CFR part 60, subpart IIII and:
  - (A) The engine has a displacement of 30 liters or more per cylinder; or
- (B) The engine has a displacement of less than 30 liters per cylinder and is rated at 500 horsepower or more; or
- (d) For any individual non-emergency engine, the engine is subject to 40 CFR part 60, subpart JJJJ and is rated at 500 horsepower or more,

DEQ agrees with the commenter and changed the proposed rules in response to the comment.

 $^{1}$  22,500 kW/(0.7457 kW/hp x 0.85) = 35,498 hp

Delete the requirement that all sources with an air permit keep records of monitoring data and supporting information for five years. Those revisions are inconsistent with DEQ's longstanding practice to only require Title V sources to maintain records for five years. If finalized, the proposed revisions would leave each sources currently complying with the two-year retention condition vulnerable to non-compliance with DEQ's new five-year recordkeeping rule.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

# Response:

DEQ proposed to revise the requirement to keep records for two years to five years because 1,603 out of 2,527 (63%) smaller sources are now subject to area source NESHAPs under 40 CFR Part 63. In the Part 63 Subpart A General Provisions, 40 CFR 63.10 (b)(1) requires the owner or operator of an affected source subject to the provisions of Part 63 to maintain files of all information required by Part 63, and states that the files shall be retained for at least 5 years. The NESHAP recordkeeping requirement results in a dual recordkeeping requirement under the current rules, with a higher probability that affected sources may not realize they must retain certain records for five years. Even the approximately 400 gasoline dispensing facilities that are not required to obtain permits because of NESHAP requirements are still required to keep records for 5 years to show permit exemptions still apply.

DEQ determined that requiring all sources to keep records for five years is the simplest way to ensure that sources will comply with the NESHAP recordkeeping requirements.

	Summary of Comments and DEQ Responses		
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	DEQ does not anticipate this requirement will impose a significantly greater burden on sources as sources have told their inspectors that they already keep records for at least five years. The requirement to keep records for five years starts on July 1, 2015 so sources will not be vulnerable to non-compliance.		
	DEQ did not change the proposed rules in response to this comment.		
1.15	DEQ should not remove emergencies as an affirmative defense for non-Title V sources.  An emergency could render any source unable to comply with its technology based emission limits. Every source regardless of size bears the burden of proving evidence that an emergency actually occurred. The affirmative defense of emergency is equally applicable and important to all sources, not just large ones.		
	DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the <i>Commenter section</i> below.		
	Response:		
	EPA has revised its interpretation of the Clean Air Act concerning the issue of affirmative defense provisions in State Implementation Plans as a result of a petition filed by the Sierra Club published on February 22, 2013 in the Federal Register (78 FR 12459). EPA has rescinded the Startup Shutdown Malfunction Policy element that interpreted the Clean Air Act to allow affirmative defense provisions in SIPs for non-Title V sources. Therefore, DEQ is limiting emergency as an affirmative defense to Title V permitted sources only but is including emergency as one of the criteria to consider in taking enforcement action for non-Title V sources in OAR 340-214-0350(7) Enforcement Action Criteria which is allowable as a SIP provision:		
	(7) Whether the excess emissions event was due to an emergency.		
	DEQ did not change the proposed rules in response to this comment.		
1.16	DEQ should exclude startup, shutdown, and malfunction events from excess emission requirements where currently allowed by federal regulation or permit specific requirements.  DEQ received comments in this category from commenter 56 listed in the <i>Commenter section</i>		
	below.		
	Response:		
	DEQ added proposed rule language where federal regulations, such as New Source Performance Standards or National Emission Standards for Hazardous Air Pollutants, exempt emissions in excess of applicable standards from being excess emissions.		
	DEQ agrees with the commenter and changed the proposed rules in response to this comment.		
1.17	DEQ should clarify the language within the Plant Site Emission Limit rules regarding emissions from categorically insignificant activities. Since division 224 has been expanded to include minor New Source Review as well as major New Source Review, the proposed language would greatly expand the stringency of minor New Source Review in that emissions from categorically insignificant activities are not considered as part of the minor New Source Review program.		

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DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

DEQ agrees with the comment. As discussed in the response to comment 6.1, Major New Source Review and Type A State New Source Review are equivalent to the 2001/2015 New Source Review program. To maintain program continuity, DEQ has revised OAR 340-222-0035(5) to read as follows:

(5) Plant Site Emission Limits do not include emissions from categorically insignificant activities. Emissions from categorically insignificant activities must be considered when determining Major New Source Review or Type A State New Source Review applicability under OAR 340 division 224.

To provide additional clarity with regard to categorically insignificant activities, DEQ also revised OAR 340-222-0041to read as follows:

(4) If an applicant wants an annual PSEL at a rate greater than the netting basis, the applicant must, consistent with OAR 340-222-0035:

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

DEQ should not delete OAR 340-222-0041 that for many years has been the basis for determining the applicable requirements where a Plant Site Emission Limit increase was requested. Simply referencing division 224 in the proposed OAR 340-222-0041(4) leaves tremendous confusion on the applicability of division 224.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

DEQ's permitting program has always consisted of two parts: major New Source Review and "minor" New Source Review. The requirements for the major New Source Review program have resided in division 224 since 2001. In nonattainment areas and maintenance areas, DEQ's major New Source Review program applied to sources that were defined as major if their emissions were greater than or equal to the significant emission rate. In attainment areas, major sources were defined at the 100 or 250 tons per year level. Sources whose emissions are below these major source thresholds are considered "minor" sources for major New Source Review purposes. DEQ permits minor sources under the following programs:

- Air Contaminant Discharge Permit
- Title V Permit
- Notice of Construction and Approval of Plans
- Registration

Because DEQ is proposing changes to the New Source Review program that include designation of sustainment and reattainment areas, DEQ decided to completely separate the minor New Source Review program from the major New Source Review program. DEQ cannot apply these area designations along with their requirements to federal major sources (100 and 250 tons per year sources) because of EPA restrictions. Therefore, a separate program for

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minor sources would utilize these area designations and also house the minor New Source Review program, proposed to be renamed "State New Source Review," in one area of the rules.

Since requested increases in the Plant Site Emission Limits greater than the significant emission rate for other than New Source Review purposes could require a net air quality benefit analysis, offsets, computer modeling, and refer the source to divisions 224 and 225 for compliance, DEQ decided to make this part of the State New Source Review program. DEQ has included additional clarification in OAR 340-222-0041(4) that directs sources to OAR 340-224-0010, the applicability section of New Source Review. The applicability section in division 224 has also been clarified.

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

DEQ is proposing to significantly increase the stringency of division 224 by deleting the minor New Source Review provisions and using OAR 340-222-0041(4) as the "gate keeper" provision to OAR 340-224-0010. If OAR 340-222-0041(4) is supposed to be the gatekeeper to State New Source Review, OAR 340-224-0010(2) serves no function.

DEQ's language is very confusing and internally inconsistent. DEQ should not revise division 224 this time and instead do so in a separate future rulemaking. If DEQ does not wish to leave division 224 changes to another rulemaking, the rules should be clear that a source does not consult division 224 unless it is requesting a Plant Site Emission Limit that exceeds the netting basis by a significant emission rate or more.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

DEQ agrees with part of the comments and has revised OAR 340-222-0041(4) to restore subsections (a) and (b), which were formerly OAR 340-222-0041(3)(a) and (b). This change effectively means that the new rules have the same structure as the old rules.

Commenters state with regard to OAR 340-224-0010(2) that "As written, this means that by requesting to increase a nitrogen oxides Plant Site Emission Limit to 40 tons per year or more in a nonattainment area--regardless of the source's netting basis--that source will trigger nonattainment State New Source Review and be required to provide offsets and demonstrate a net air quality benefit." DEQ has reviewed OAR 340-224-0010(1) and (2) and has revised the rule language to clarify the applicability. DEQ also notes that a NEW source with emissions over the SER is subject to NSR since its netting basis is zero; in this case the qualifier "over the netting basis" has been omitted.

DEQ's intent with these rule revisions is essentially to maintain the overall new source review program as it was from 2001 through early 2015, with the following exceptions:

rules have been added for the new sustainment and reattainment areas; and

offset and net air quality benefit requirements have been revised and in some cases are more stringent.

On the whole, however, DEQ did not intend to dramatically increase the stringency of the new source review program.

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In consideration of the comment above, DEQ reviewed the applicability requirements in OAR 340-224-0010(2) and has revised to clarify the applicability of State New Source Review. In addition, both OAR 340-224-0010(1) and (2) follow the structure of OAR 340-224-0010(1) and (2) in the 2001/2015 New Source Review applicability rules in OAR 340 division 224.

OAR 340-224-0010(2) rule language	Review/discussion of rule
(a) In a nonattainment, reattainment or maintenance area:  (A) Construction of a new source that will have emissions of the nonattainment, reattainment or maintenance pollutant equal to or greater than the SER; or	A new source has no netting basis, therefore any emissions over the SER mean that the increase over the netting basis is over the SER. This triggers Type A State New Source Review (formerly 2001/2015 New Source Review)
(B) Major modification for the nonattainment, reattainment or maintenance pollutant, at an existing source that will have emissions of the nonattainment, reattainment or maintenance pollutant equal to greater than the SER over the netting basis.	A major modification triggers Type A State New Source Review (formerly 2001/2015 New Source Review).
(b) In a nonattainment, reattainment or maintenance area, increasing emissions at an existing source to an amount equal to or greater than the SER over the netting basis but not subject to subsection (a).	If emissions are equal to or greater than the SER over the netting basis, then they are also equal to or greater than the SER. Not subject to (a) means no major modification.  This triggers Type B State New Source Review (formerly 2001/2015 Plant Site Emission Limit rule).
(c) In an attainment, unclassified or sustainment area:  (A) Construction of a new source that will have emissions of a regulated pollutant equal to or greater than the SER; or	Provided that the source is not a federal major source, this triggers Type B State New Source Review (formerly 2001/2015 Plant Site Emission Limit rule).
(B) Increasing emissions of a regulated pollutant to an amount that is equal to or greater than the SER over the netting basis.	May or may not be a major modification, but not subject to Major New Source Review unless source is a federal major source. This triggers Type B State New

	Summary of Comments and DEQ Responses
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	Source Review (formerly 2001/2015 Plant Site Emission Limit rule).
	DEQ determined that the changes to OAR 340-222-0041 and 340-224-0010 maintain the 2001/2015 structure of OAR 340-222-0041 and 340-224-0010. DEQ therefore does not agree to pull back the proposed changes and address them in a future rulemaking.
	DEQ agrees with the commenter and changed the proposed rules in response to this comment.
1.20	OAR 340-222-0041(4) specifies that federal major source that requests a Plant Site Emission Limit in excess of the netting basis plus SER but does not trigger Prevention of Significant Deterioration, it must demonstrate compliance with National Ambient Air Quality Standards, Prevention of Significant Deterioration increment and AQRVs. This should not be triggered where a source is major for a non-greenhouse gases pollutant and the sole increase sought is in the greenhouse gas Plant Site Emission Limit. These requirements should only apply to the pollutant for which the increased Plant Site Emission Limit is sought.
	DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the <i>Commenter section</i> below.
	Response:
	DEQ has clarified the requirements with respect to greenhouse gases in OAR 340-222-0041 as well as OAR 340-224-0010.
	DEQ agrees with the commenter and changed the proposed rules in response to this comment.
1.21	The current Plant Site Emission Limit rule should be revised so that minor sources are not required to demonstrate a net air quality benefit as a condition to increase their Plant Site Emission Limit by a significant emission rate or more above netting basis. There is no need to create a whole new section of the regulations to accomplish this relatively straightforward improvement. We support retaining the Plant Site Emission Limit rule as it currently is structured with this improvement.
	DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the <i>Commenter section</i> below.
	Response:
	The requirement for minor sources to demonstrate a net air quality benefit is not new. The existing OAR 340-222-0041(3) is stated below; the existing requirements to demonstrate net air quality benefit are underlined:
	(3) If an applicant wants an annual PSEL at a rate greater than the netting basis, the applicant must:
	(a) Demonstrate that the requested increase over the netting basis is less than the SER; or
	(b) For increases equal to or greater than the SER over the netting basis, but not subject to New Source Review (OAR 340 division 224):
	(A) If located within, or creating a significant air quality impact as defined in OAR 340-

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200-0020 upon, an area designated as nonattainment in OAR 340-204-0030, the applicant must obtain offsets and <u>demonstrate a net air quality benefit in accordance with 340-225-</u>0090.

- (B) If located within, or creating a significant air quality impact as defined in OAR 340-200-0020 upon, an area designated as maintenance in 340-204-0040, the applicant must
- (i) Obtain offsets and <u>demonstrate a net air quality benefit in accordance with OAR 340-</u>225-0090;
- (ii) Obtain an allocation from an available growth allowance in accordance with the applicable maintenance plan; or
- (iii) Demonstrate compliance with the air quality impact levels in OAR 340-224-0060(2)(c) or (2)(d), whichever applies to the maintenance area, by conducting an air quality analysis in accordance with 340-225-0045.

Currently, minor or major sources are required to demonstrate net air quality benefit for all requested increases in the Plant Site Emission Limit over the netting basis by more than the significant emission rate when located in or impacting nonattainment and maintenance areas. In creating the State New Source review program, DEQ has kept this requirement and proposes revisions to the demonstration procedure.

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

DEQ is proposing a fundamental shift in Plant Site Emission Limit compliance by saying that regardless of the Plant Site Emission Limit compliance requirements specified in the permit, emissions may be calculated using other procedures. This proposed approach runs absolutely counter to decades of DEQ guidance saying that Plant Site Emission Limit compliance will always be determined by the methodology stated in the permit and should be removed from the final rule language.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

The Oregon State Implementation Plan has long contained the credible evidence rule:.

#### 340-214-0120

#### **Enforcement**

Notwithstanding any other provisions contained in any applicable requirement, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any such applicable requirements.

This rule is a required element of all State Implementation Plans as stated in 40 CFR 51.212(c):

§ 51.212 Testing, inspection, enforcement, and complaints.

The plan must provide for—

- (a) Periodic testing and inspection of stationary sources; and
- (b) Establishment of a system for detecting violations of any rules and regulations

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through the enforcement of appropriate visible emission limitations and for investigating complaints.

- (c) Enforceable test methods for each emission limit specified in the plan. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, the plan must not preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. As an enforceable method, States may use:
- (1) Any of the appropriate methods in appendix M to this part, Recommended Test Methods for State Implementation Plans; or
- (2) An alternative method following review and approval of that method by the Administrator; or
- (3) Any appropriate method in appendix A to 40 CFR part 60.

This rule applies to all applicable requirements, which includes Plant Site Emission Limit compliance. By adding the proposed language in OAR 340-222-0051(4) and 340-222-0080(6) saying that regardless of the Plant Site Emission Limit compliance requirements specified in the permit, emissions may be calculated using other procedures, DEQ is clarifying that credible evidence allows other methods of calculating actual emissions which is not a change in policy.

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

- The use of "actual emissions" based upon a unit's actual hours of production rates can be very burdensome for certain emissions units. DEQ should reword the proposed rule language in OAR 340-222-0051(4) to say "reasonable estimate."
  - (4) Regardless of the PSEL compliance requirements specified in a permit, actual emissions from a source or part of a source may be calculated for any given 12 consecutive month period using data that is considered valid and representative of the source's or part of a source's emissions. Actual emissions must be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.

DEQ received comments in this category from commenter 58 listed in the *Commenter section* below.

#### Response:

DEQ requires sources to keep records of process parameters such as production rates and fuel usage, when reporting compliance with the Plant Site Emission Limits. The proposed rule language is not a new requirement. If a particular emissions unit is problematic in this regard, the affected facility should work with their permit writer to develop the best possible method for determining operating hours or production rates, and to specify that method in the permit.

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

1.24 The wording in OAR 340-225-0050(3) creates an unintentional conflict with OAR 340-225-0050(1). The intent of OAR 340-225-0050 is that a source triggering the modeling

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requirements must demonstrate that its impacts are below the significant impact levels and also demonstrate that those significant impact levels are adequately protective. If this showing cannot be made, then the source must perform a competing source analysis. However, OAR 340-225-0050(3) then states that the source must demonstrate that it will not cause or contribute to an AAQS or increment exceedance. Either OAR 340-225-0050(3) duplicates what is stated in 340-225-0050(1) or it is imposing an entirely different requirement. OAR 340-225-0050(3) must be read to require an additional evaluation beyond the evaluation in 340-225-0050(1), strongly suggesting a competing source analysis. This is not necessary where a source meets its obligations under OAR 340-225-0050(1), so DEQ should delete the proposed language 340-225-0050(3).

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

The rule language added in OAR 340-225-0050(3) was purposely added because the D.C. Circuit Court of Appeals vacated and remanded EPA's regulations at 40 C.F.R. §§ 51.166(k)(2) and 52.21(k)(2) in January 2013 in Sierra Club v. EPA. (705 F.3d 458 (D.C. Cir. 2013)) The court stated, "EPA asserts that [because] it did not intend to automatically exempt a proposed source from the requirements of the Act without affording the permitting authorities discretion in applying the significant impact levels, it requests that we vacate and remand the regulatory text promulgated in the rule at 40 C.F.R. §§ 51.166(k)(2) and 52.21(k)(2)." Sierra Club argued that proposed sources in an area on the verge of violating the National Ambient Air Quality Standards or an increment could violate the standards or an increment even if the resulting emission levels would fall below the SIL.

Upon further examination, the language added to OAR 340-225-0050(1)(b) contains the requirements for the additional evaluation beyond the evaluation in subsection (1)(a). The proposed language added in section (3) was not meant to suggest a competing source analysis so DEQ has removed the proposed language in section (3) and relies on the language in subsection (1)(b) instead.

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

1.25 OAR 340-225-0070(1) states that sources that are not "federal major sources are exempt from the" AQRV rules. DEQ should develop minimum screening criteria for projects that are not "federal major sources" to determine whether projects should be exempt from all AQRV protection standards and National Scenic Area protection standards.

DEQ received comments in this category from commenter 24 listed in the *Commenter section* below.

#### Response:

The exemption for non-federal majors is an existing rule so these sources have never been required to do an AQRV analysis. This requested change would require AQRV analysis for potentially many smaller sources that in general are not considered large enough to affect

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Class I areas.

DEQ appreciates the comments received. However, the issue raised is outside the scope of the public notice published for this rulemaking and cannot be considered at this time. To explore the issue raised would likely require considerable agency resources and stakeholder input.

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

1.26 The DEQ's proposed revisions would modify the air quality rules governing projects that would affect air quality related values in the Columbia River Gorge. DEQ should use this opportunity to provide greater clarity on how those rules should be implemented to protect air quality in the Gorge and require visibility modeling for the National Scenic Area. To ensure protection of the Columbia River Gorge National Scenic Area consistent with the National Scenic Area Act, DEQ should retain "significant impairment" as a threshold for impacts to the National Scenic Area and add language tying that threshold to adverse impacts as defined by the National Scenic Area Act.

DEQ should not designate Columbia River Gorge Scenic Area as a federal Class I area by requiring sources to assess potential visibility and deposition impacts on the scenic area. The scenic area is not a Class I area with pristine air quality and is not managed as such. Under the proposed rule, sources will be required to complete very expensive Class I-style evaluation of impacts to the scenic area since DEQ could deny the air permit if it finds "significant impairment."

DEQ received comments in this category from commenters 2, 3, 4, 7, 13, 20, 24, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

## Response:

Based on past experience, all sources that have been asked to model the Gorge have done so voluntarily. DEQ proposed making the analyses mandatory to ensure that sources would be required to do it, not to apply the Class I area criteria to scenic areas. DEQ has never applied the "significant impairment" criteria for Class I areas to areas other than Class I areas. By making this analysis mandatory, DEQ intended to use the analysis for informational purposes only, as it has done in the past.

The existing rule language says:

DEQ also encourages the owner or operator to demonstrate that these same emission increases or decreases will not cause or contribute to significant impairment of visibility on the Columbia River Gorge National Scenic Area (if it is affected by the source).

DEQ applies the 'significant impairment' language in the rule as its own standard and in a reasonable and consistent manner. DEQ did not, and does not, intend for that threshold to be equated with the Scenic Act's "adversely affect" standard. In order to avoid confusion, DEQ proposed to remove the "significant impairment" language from the requirement for the visibility analysis on the Gorge since "significant impairment" is only defined for Class I areas.

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

# **Summary of Comments and DEQ Responses** Category 1: Clarify and update air quality rules 1.27 DEQ should: delete draft OAR 340-225-0070(4)(d) and retain the criteria for significant impairment in OAR 340-225-0070(6)(b) and if necessary, cross-reference the modeling requirements in OAR 340-225-0070(4) and (5); revise the language in OAR 340-225-0070(6)(b) to require applicants to base their analysis on FLAG guidance; • retain the proposed revision requiring deposition modeling for impacts to the National Scenic Area; add language addressing significant impairment and incorporating National Scenic Area standards for adverse impacts; add a requirement for visibility monitoring of impacts to the National Scenic Area and explicitly reference the National Scenic Area Act, Management Plan, and Air Quality Strategy standards; revise the additional impacts analysis to ensure consistency with existing requirements for "continued improvement" of air quality in the National Scenic Area and revise the section to clarify relationship to the application requirements in OAR 340-225-0030(4); provide examples of "other AQRVs" identified in the FLAG Report, including AQRVs found in Class II areas; should incorporate National Scenic Area standards for adverse impacts, including standards from the Management Plan and thresholds for individual significant impacts identified in the Air Quality Strategy; clarify the definition to include all subsequent revisions and updates to the FLAG guidance; designate the Mark O. Hatfield Wilderness as a Class I area subject to the Prevention of Significant Deterioration standards. The Clean Air Act expressly authorizes that "a State may redesignate such areas as it deems appropriate as class one areas[.]" Pursuant to this authority, the state should provide additional protection to the Mark O. Hatfield Wilderness. DEQ received comments in this category from commenter 24 listed in the Commenter section below. Response: DEQ appreciates the comments received. However, the issues raised are outside the scope of the public notice published for this rulemaking and cannot be considered at this time.

DEQ appreciates the comments received. However, the issues raised are outside the scope of the public notice published for this rulemaking and cannot be considered at this time. To explore the issues raised would likely require considerable agency resources and stakeholder input.

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

The proposed revision to the hardboard rule reads "Specific operating temperatures lower than 1500° F. may be approved by DEQ using 40 CFR Part 63, Subpart DDDD, NESHAP for Plywood and Composite Wood Products." This language does not make sense. If the intent is to require the procedures of 40 CFR 63.2262, then DEQ should revise the rule to say that.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and

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	58 listed in the <i>Commenter section</i> below.
	Response:
	DEQ agrees with the commenter and changed the proposed rules in response to this comment.
1.29	DEQ is proposing that particulate compliance testing on biomass boilers be performed using only DEQ Method 5. By specifying only this test method, DEQ may be too limiting not allowing the use of an alternative test method, if needed.
	DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the <i>Commenter section</i> below.
	Response:
	DEQ agrees with the commenter and changed the proposed rules in response to this comment.
1.30	OAR 340-228-0120 says that no person must sell coal greater than 1.0 percent sulfur by weight (OAR 340-228-0120(1)) or 0.3 percent sulfur (OAR 340-228-0120(2)). We believe that DEQ has intended to say "shall," rather than "must."
	DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the <i>Commenter section</i> below.
	Response:
	DEQ agrees with the commenter and changed the rule language back to "may" in response to this comment.
1.31	DEQ proposes to expand the requirements applicable to marine loading of gasoline to include the marine loading of any volatile organic compounds liquid with a true vapor pressure greater than 10.5 kPa (1.52 psia) in the Portland Air Quality Maintenance Area. Existing air pollution control equipment for gasoline vapors cannot be applied to vapors from these other liquids.
	There does not appear to be any basis for removing the current flexibility that allows a loading facility to request written approval to use an alternative monitoring method.
	DEQ should address this rule through a separate rulemaking and include a detailed technical and economic analysis.
	DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48, 57 and 58 listed in the <i>Commenter section</i> below.
	Response:
	The Portland Air Quality Maintenance Area is a former nonattainment area for ozone.  The intent of the marine loading rule is to reduce emissions of volatile organic compounds, which are ozone precursors, to help ensure that the Portland area will not revert to nonattainment for ozone. DEQ understands that there are volatile organic liquids with vapor pressures that exceed the vapor pressure of gasoline that are or may in the future be handled by terminals in the Portland Air Quality Maintenance Area; DEQ wants to address these liquids in a proactive way by revising the rule.

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However, based on the comments received, DEQ reconsidered the proposed changes. DEQ realized the original proposal was too stringent and would require control of emissions from liquids with very low vapor pressures. DEQ determined instead that it is appropriate to require control of emissions for liquids that have a Reid vapor pressure (RVP) that is the same as or greater than the RVP of gasoline, which is specified as 4.0 psi in the current rules.

DEQ has also become aware that certain heavy organic liquids must be heated so that these liquids can be pumped. These heavy liquids may have a RVP that is less than the RVP of gasoline, but when heated the true vapor pressure may be greater than 4.0 psi. DEQ has therefore proposed to require control of emissions from loading liquids that are deliberately heated to 110 degrees Fahrenheit or more and that have an RVP of 3.0 psi or more.

DEQ also understands that existing emission control systems cannot handle the emissions from certain high vapor pressure liquids and would have to be replaced, most likely with thermal oxidizers, in order to control emissions from such liquids. Affected facilities need time to modify their emission control systems, and if necessary, to permit them.

Based on the above considerations, DEQ has revised the proposed rule as follows:

The rule would continue to apply to gasoline; and

Beginning July 1, 2018, the rule would apply to gasoline, all other organic liquids with an RVP of 4.0 psi or more, and all organic liquids that are deliberately heated to 110 degrees Fahrenheit or more and have an RVP of 3.0 psi or more.

DEQ also agrees that this rule should not apply to liquefied natural gas or propane and has excluded organic liquids that are stored in pressurized tanks, such as liquefied natural gas, liquefied petroleum gas, butane or propane.

DEQ agrees with some of the comments and changed the proposed rules in response to the comments.

1.32 The proposed changes to the Loading Gasoline or Volatile Organic Compound Liquids onto Marine Tank Vessels rules will place businesses and terminals located in the Portland region at a competitive financial and potentially operational disadvantage when compared to those businesses located in other parts of the state. The limits should be applied statewide. If the statewide applicability cannot be reasonably accomplished, the loading emission control requirements for gasoline and volatile organic compounds liquids should form the baseline for any typically achievable control technology determinations for controls at other facilities anywhere in the state.

DEQ received comments in this category from commenter 46 listed in the *Commenter section* below.

#### Response:

DEQ understands that the proposed rule can place terminals in the Portland area at a competitive disadvantage compared to similar businesses in other parts of the state. However, this rule change was proposed as a measure to help ensure continued attainment of the ozone ambient air quality standards in the Portland area. Portland is

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	currently in attainment with the ozone standards, but is a former nonattainment area for ozone. In addition, the U.S. Environmental Protection Agency has proposed to lower the ozone standards, potentially putting the area at greater risk of exceeding the standards.
	DEQ did not propose to extend this requirement to other areas in the state, and to do so without additional public notice would deprive potentially affected areas and facilities of the opportunity to comment on the proposal.
	DEQ did not change the proposed rules in response to this comment.
1.33	The definition of a volatile organic compound liquid is unclear and could be interpreted to apply to liquefied natural gas based on transport pressure. OAR 340-232-0110 is a volatile organic compounds control rule for the Portland AQMA and should not apply to liquefied natural gas because liquefied natural gas is mostly methane, a non-volatile organic compound.
	DEQ received comments in this category from commenter 46 listed in the <i>Commenter section</i> below.
	Response:
	DEQ agrees that this rule should not apply to organic liquids that are stored in pressurized tanks, such as but not limited to liquefied natural gas (LNG), liquefied petroleum gas (LPG), butane or propane, and has excluded organic liquids that are stored in pressurized tanks.
	DEQ agrees with the comment and changed the proposed rules in response to the comment.
1.34	The increased emissions that result from vapor destruction equipment used to control fugitive emissions from LNG, LPG, and propane loading outweigh the limited benefits of volatile organic compounds emission reductions by creating criteria pollutants, including volatile organic compounds, carbon monoxide, nitrogen oxides, and particulate matter; as well as air toxics such as formaldehyde and benzene.
	DEQ received comments in this category from commenter 46 listed in the <i>Commenter section</i> below.
	Response:
	See DEQ's response to 1.33.
1.35	DEQ should clarify that the following divisions and/or rules apply in Lane County upon adoption by EQC since they represent a level of greater stringency and/or are necessary for LRAPA to maintain rules that are consistent with state and federal regulations.
	Division 224 – New Source Review
	Division 225 – Air Quality Analysis Requirements
	OAR 340-208-0110 - Visible Air Contaminant Limitations: LRAPA requests this rule be effective in Lane County since the opacity limitation is numerically more stringent than the existing LRAPA rule (40% vs. 20%). LRAPA requests this rule apply only to

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wood/biomass-fired boilers in Lane County; LRAPA needs additional time to evaluate the proposed revisions to the visible emission monitoring method as it applies to sources other than wood/biomass-fired boilers.

OAR 340-226-0210 - Particulate Emission Limitations for Sources Other Than Fuel Burning, and Refuse Burning Equipment and Fugitive Emissions

OAR 340-228-0210 - Grain Loading Standards for Fuel Burning Equipment

Division 200 – Definition of "Categorically Insignificant Activity"

OAR 340-222-0090 – Combining and Splitting Sources

OAR 340-208-0210(2)(a), (b), and (3) – Visible Emission Monitoring for Fugitive Emissions

OAR 340-214-0114(5) – Recordkeeping for 5 years

All other existing LRAPA rules are at least as strict as the proposed DEQ rules and/or can be proposed by LRAPA for adoption at a later time.

In this rule revision package, DEQ has revised the language in the applicability provisions of OAR divisions 200, 202, 208, 210, 212, 214, 216, 218, 220, 222, 224, 225, 226, 228, 234, 236, 268 with respect to when these divisions apply within the jurisdiction of Lane Regional Air Pollution Authority. The comparison involves a division or chapter of LRAPA's rules with the particular DEQ division, rather than a rule by rule comparison. The proposed language is not clear if LRAPA's rules are at least as strict as the particular OAR division, the LRAPA rules apply in lieu of the OAR division or in addition to the OAR division. Given the importance of knowing which rules apply within LRAPA's jurisdiction prior to action on a SIP revision for DEQ or LRAPA, DEQ will need to provide clarifying documentation, including an attorney opinion before action can be taken on such SIP revisions.

DEQ received comments in this category from commenters 31 and 52 listed in the *Commenter section* below.

#### Response:

DEQ added the following language to OAR 340-200-0010 Purpose and Application and changed the jurisdiction rule language in OAR 340 divisions 202, 208, 210, 212, 214, 216, 218, 220, 222, 224, 225, 226, 228, 234, 236, and 268.

340-200-0010(3) DEQ administers divisions 200 through 268 in all areas of the State of Oregon except when the EQC has designated LRAPA to administer rules within its areas of jurisdiction. Subject to and when provided in divisions 200 through 268, LRAPA is authorized by the EQC as the agency to implement these state rules, and must apply the requirements and procedures contained in these state rules, within its area of jurisdiction. LRAPA may apply any LRAPA rule in lieu of a state rule(s) provided that the LRAPA rule is at least as strict as the state rule(s), LRAPA has submitted the rule to the EQC for its approval, and the EQC has not disapproved the rule.

Applicability and Jurisdiction:

(X) Subject to the requirements in this division and OAR 340-200-0010(3), LRAPA is

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designated by the EQC to implement the rules in this division within its area of jurisdiction.
DEQ agrees with the commenter and changed the proposed rules in response to this comment.

1.36 DEQ should provide additional information and analysis before removing state regulations for neutral sulfite semi-chemical pulp mills, sulfite pulp mills, primary aluminum plants, laterite ore production of ferronickel, and charcoal producing plants. DEQ should provide a detailed analysis showing that existing rules are not more stringent than federal rules.

Second, all of the regulations that DEQ is proposing to delete do not have thresholds and apply to all sources within their respective industrial categories. Both the triggering of New Source Review/Prevention of Significant Deterioration and the application of Maximum Achievable Control Technology have threshold, triggering values; below those levels, these programs do not apply. It is therefore possible, or even likely, that new source in one of the industrial categories could be located in Oregon and not subject to these federal programs.

Third, while New Source Performance Standard regulations generally do not have thresholds on the size of the source, some of the industrial categories do not have New Source Performance Standard regulations, or Oregon's regulations appear to be more stringent than the federal New Source Performance Standards.

DEQ received comments in this category from commenter 40 listed in the *Commenter section* below.

#### Response:

DEQ is proposing to repeal rules for the following sources, none of which are currently located in Oregon:

Source Category	OAR	Adoption Date
Primary Aluminum Standards	340-236-0100-0150	1973
Laterite Ore Production of Ferronickel	340-236-0200-0230	1972
Neutral Sulfite Semi-Chemical (NSSC) Pulp Mills	340-234-0300-0360	1990
Sulfite Pulp Mills	340-234-0400-0430	1971
Charcoal Producing Plants	340-240-0170	1978

As described below in this response, DEQ has undertaken a detailed analysis and concludes that the repeal of the rules listed above will not result in a weakening of DEQ's air quality permitting requirements. DEQ agrees with the commenter that all of the regulations proposed for repeal do not have thresholds and apply to all sources within their respective industrial categories. DEQ also agrees that applicability of New Source Review/Prevention of Significant Deterioration and Maximum Achievable Control Technology have threshold triggering values; below those levels, these programs do not apply. The table below shows the Plant Site Emission Limits in tons per year for the facilities that have shut down in Oregon in the categories of the

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rules DEQ is proposing to repeal. Assuming new facilities would have similar Plant Site Emission Limits, the requirements of New Source Review/Prevention of Significant Deterioration would apply to every new facility in those industrial categories because their emissions are greater than the major source threshold. Any new facility in any of these industrial categories would also trigger Maximum Achievable Control Technology for hazardous air pollutants these sources would be major hazardous air pollutant sources, except for Royal Oak. Since there is no Maximum Achievable Control Technology standard for charcoal production, the fact that Royal Oak was not a major source of hazardous air pollutants has no consequences.

Source	trial Categories of Proposed L Emissions	Major Source Threshold
Reynolds Metals	CO – 13,138 tpy	100 tpy of any regulated
110 ) 110 1415 1110 1415	NOx - 59 tpy	pollutant
	PM - 956 tpy	F
	PM10 - 956 tpy	
	$SO2 - 4{,}701 \text{ tpy}$	
	VOC - 86 tpy	
	F-171 tpy	
	HAPs - 1,796	
Northwest Aluminum	CO – 15,414 tpy	100 tpy of any regulated
	<i>NOx - 63 tpy</i>	pollutant
	PM-421 tpy	
	PM10 - 421 tpy	
	SO2 - 484 tpy	
	VOC - 209 tpy	
	F-51 tpy	
	HAPs - 490 tpy	
Weyerhaeuser North	<i>CO</i> − 1,282 <i>tpy</i>	250 tpy of any regulated
Bend	NOx - 287 tpy	pollutant
	PM - 550 tpy	
	PM10 - 550 tpy	
	SO2 - 173 tpy	
	VOC - 297 tpy	
	<i>HAPs</i> – <i>143 tpy</i>	
Glenbrook Nickel	CO - 3,416 tpy	250 tpy of any regulated
	<i>NOx - 3,684 tpy</i>	pollutant
	$PM - 1,574 \ tpy$	
	PM10 - 1,574 tpy	
	SO2 - 534 tpy	
	VOC - 165 tpy	
	HAPs - 43 tpy	
Royal Oak	CO-27 tpy	100 tpy of any regulated
	NOx - 182 tpy	pollutant
	PM-185 tpy	
	PM10 - 185 tpy	
	SO2 - NA	

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	VOC - 38 tpy HAPs - < 25 tpy					

Congress established the New Source Review permitting program as part of the 1977 Clean Air Act Amendments. New Source Review is a preconstruction permitting program that serves two important purposes:

First, it ensures that air quality is not significantly degraded from the addition of new and modified factories, industrial boilers and power plants. In areas with unhealthy air, New Source Review assures that new emissions do not slow progress toward cleaner air. In areas with clean air, especially pristine areas like national parks, New Source Review assures that new emissions do not significantly worsen air quality.

Second, the New Source Review program assures people that any large new or modified industrial source in their neighborhoods will be as clean as possible, and that advances in pollution control occur concurrently with industrial expansion.

When a new facility triggers New Source Review, one component of the application process is to do a control technology evaluation. The owner/operator of the proposed facility must review similar facilities to see what the latest control technologies are being used and determine if that control technology can be used at their facility. If the facility is located in a nonattainment area, Lowest Achievable Emission Rate is applied as the most stringent emission limitation derived from either of the following:

The most stringent emission limitation contained in the implementation plan of any State for such class or category of source; or

The most stringent emission limitation achieved in practice by such class or category of source.

If the facility is located in an attainment area, Best Available Control Technology is an emissions limitation which is based on the maximum degree of control that can be achieved. It is a case-by-case decision that considers energy, environmental and economic impact. Best Available Control Technology can be add-on control equipment or modification of the production processes or methods.

A review of EPA's Reasonably Achievable Control Technology/Best Available Control Technology/Lowest Achievable Emission Rate Clearinghouse was performed to identify the corresponding emission limits that have been established on any new primary aluminum plant, sulfite pulp mill, neutral sulfite semi-chemical pulp mill, ferronickel smelter, and charcoal manufacturing facility. While a direct emission limit comparison is not possible in every case due to the unique terms of some of the limits, these facilities were qualitatively determined to have emissions that are lower than the current DEQ standards, most of which were adopted in the 1970s. Control technology has improved dramatically in 40 years. Additionally, Best Available Control Technology and/or Lowest Achievable Emission Rate must be at least as stringent as any New Source Performance Standards or Maximum Achievable Control Technology. Results from the clearinghouse are included below in the following tables for each facility type.

In the tables below, DEQ has also identified specific requirements, both New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants, which would apply to new sources in these industrial categories. The New Source Performance

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Standards for these industrial source categories do not have thresholds but are triggered by the date a facility commences construction or modification. The National Emission Standards for Hazardous Air Pollutants for these source categories apply to major sources of hazardous air pollutants and would apply to all of the following facilities in the industrial categories except charcoal manufacturing for which there is no corresponding standard.

NSSC	OAR	CFR – NSPS	Subpart BBa	CFR – NESHA	P Subpart MM
SOURCE	LIMIT	SOURCE	LIMIT	SOURCE	LIMIT
Neutral Sulfite Semi- Chemical Pulp Mills OAR 340-234- 0300 Existing and new sources Spent Liquor Incinerator	Particulate matter 7.2 lbs/ton black liquor solids as a daily arithmetic average 35 % opacity SO2 10 ppm TRS 10 ppm and 0.14 lb/ton black liquor solids	Subpart BBa— Standards of Performance for Kraft Pulp Mill Affected Sources for Which Construction, Reconstruction , or Modification Commenced After May 23, 2013  new or reconstructed recovery furnace where kraft pulping combined with neutral sulfite semi-chemical pulping	particulate matter 0.015 gr/dscf straight kraft recovery furnace TRS 5 ppm cross recovery furnace TRS 25 ppm 20% opacity with ESP	Subpart MM— National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semi chemical Pulp Mills (04/15/98)	PM 0.020 gr/dscf
Acid Absorption Tower.	SO2 emissions 20 ppm				
All NSSC sources, except spent liquor incinerators	20% opacity				

The table above compares DEQ's Neutral Sulfite Semi-Chemical (NSSC) Pulp Mill rules adopted in 1990 with EPA's New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants, rules which would apply to any new neutral sulfite semi-chemical pulp mill in the state. As can be seen, the DEQ particulate matter for spent liquor incinerators is 7.2 pounds per ton of black liquor solids. The New Source Performance Standard and National Emission Standards for Hazardous Air Pollutants are much more

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stringent and require a 0.015 gr/dscf and a 0.020 gr/dscf limit, respectively, which calculate to 0.46 and 0.61 pounds per ton of black liquor solids using source test data from the Weyerhaeuser Company spent liquor incinerator. The New Source Performance Standard opacity limit from a cross recovery furnace (20%) is lower than the DEQ limit (35%). SO<sub>2</sub> emissions are not regulated by the New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants.

The DEQ total reduced sulfur emission limit for spent liquor incinerators is 10 ppm. The New Source Performance Standard total reduced sulfur limit from a straight kraft recovery furnace is 5 ppm and from cross recovery furnace is 25 ppm. When EPA promulgated 40 CFR part 60 subpart BB—Standards of Performance for Kraft Pulp Mills in February of 1978, the cross recovery total reduced sulfur limits were included. The data collected from EPA's Information Collection Request indicated that there were no cross recovery furnaces subject to Subpart BB, so EPA was not provided any total reduced sulfur emissions data to analyze for these units. The reasons used in the original rule (and the ones referenced in the docket for Subpart BBa) for higher total reduced sulfur limits for cross recovery furnaces are as follows:

The sulfur content of semi-chemical liquor is higher than traditional kraft liquor; The heat content of the liquor is lower because it contains less organic material that kraft pulping liquor (higher pulping yields); and,

The heavier sulfur loading and lower operating temperature puts a restriction on the amount of excess oxygen available to oxidize sulfur compounds.

The only cross recovery furnace in Oregon is at Georgia Pacific in Toledo. Georgia Pacific staff indicated their semi-chemical liquor has the same sulfur content of their kraft liquor so there would be no difference in total reduced sulfur emissions from their cross recovery furnace in relation to a straight kraft recovery furnace. Therefore, the total reduced sulfur limit from a straight kraft recovery furnace regulated by the New Source Performance Standard (5 ppm) is more stringent than DEO's limit (10 ppm).

DEQ did not find any neutral sulfite semi-chemical pulp mills in the Reasonably Achievable Control Technology/Best Available Control Technology/Lowest Achievable Emission Rate Clearinghouse but the control technology would probably be similar to other types of pulp mills. Therefore, repealing the Neutral Sulfite Semi-Chemical (NSSC) Pulp Mill rules will not weaken DEQ's air permitting program.

		Prim	ary Aluminum P	lant Rule Compa	rison		
Primary Aluminum OAR		CFR – NSPS Subpart S		CFR – NESHAP Subpart LL		Prevention of Significant Deterioration	
SOURCE	LIMIT	SOURCE	LIMIT	SOURCE	LIMIT	SOURCE	LIMIT
Primary Aluminum Standards OAR 340-236- 0110 Applicability all sources at each primary aluminum plant constructed after January 1, 1973	Total fluoride 1.2 pounds per ton of aluminum (monthly); 1.0 pound per ton of aluminum (annual); and 12.5 tons per month from any aluminum plant particulate matter 7.0 pounds per ton of aluminum (monthly); and 5.0 pounds per ton of aluminum (annual)	Subpart S— Primary Aluminum Reduction Plants commences construction or modification after October 23, 1974	\$ 60.192  total fluorides 2.0 lb/ton of aluminum (Soderberg) 1.9 lb/ton of aluminum (prebake) 0.1 lb/ton of aluminum equivalent (anode bake)	Subpart LL— Primary Aluminum Reduction Plants primary aluminum production (09/26/96)	\$ 63.844.  (a) Potlines:  (1) TF 1.2  lb/ton of aluminum  polycyclic organic matter limit (Soderberg) 0.63 lb/ton of aluminum  Anode bake furnaces:  TF 0.02 lb/ton of green anode; and  polycyclic organic matter 0.05 lb/ton of green anode	Primary aluminum ore reduction Best Available Control Technology limit	Total fluoride 0.0400 pounds per ton of aluminum  Particulate matter 0.0050 grains/dry standard cubic foot 10% opacity
340-236- 0120(1)(c) any source	10 % opacity at any time	§ 60.193 Standard for visible emissions	potroom group 10 % opacity anode bake plant 20 % opacity	§63.845 Potroo m groups	10 % opacity		

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# 1.36 continued

The table above compares DEQ's primary aluminum rules adopted in 1973 with EPA's corresponding New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants, rules which would apply to any new primary aluminum smelter in the state. As can be seen, the total fluoride limits for Soderberg potlines are comparable across the three standards but the limits for the anode bake furnaces are dramatically lower in the New Source Performance Standard (0.1 lb/ton of aluminum) than DEQ's rules (1.2 lb/ton of aluminum). DEQ rules do not regulate emissions of polycyclic organic matter, a hazardous air pollutant regulated under the National Emission Standards for Hazardous Air Pollutants for primary aluminum reduction plants. The New Source Performance Standard opacity limit for anode bake plants (20%) is higher than the DEQ and National Emission Standards for Hazardous Air Pollutants limits (10%).

Also included in the table are limits for an aluminum smelter that triggered Prevention of Significant Deterioration in South Carolina in 2002. The Best Available Control Technology limit for total fluoride is 0.0400 pounds per ton of aluminum, 0.0050 grains per dry standard cubic foot and 10 percent opacity, by far more strict than DEQ's existing rules, the New Source Performance Standard Subpart S, and the National Emission Standard for Hazardous Air Pollutants Subpart LL. Any new aluminum smelter in Oregon would also trigger PSD and would be subject to standards at least as restrictive as those for the South Carolina facility. Therefore, repealing the Primary Aluminum Standards will not weaken DEQ's air permitting program.

		Laterite Ore P	Production of Feb	rronickel Rule Co	omparison		
Laterite Ore Production of Ferronickel OAR		CFR – NSPS Subpart Z		CFR – NESHAP Subpart XXX		Prevention of Significant Deterioration	
SOURCE	LIMIT	SOURCE	LIMIT	SOURCE	LIMIT	SOURCE	LIMIT
Laterite Ore Production of Ferronickel 340-236-0210 Applicability all sources of laterite ore production of ferronickel	particulate matter 3.5 pounds per ton of dry laterite ore produced	Subpart Z— Ferroalloy Production Facilities  Electric submerged arc furnaces produce silicon metal, ferrosilicon, calcium silicon, silicomanganese zirconium, ferrochrome silicon, silvery iron, high-carbon ferrochrome, charge chrome, standard ferromanganese, silicomanganese silicon, or calcium carbide; commences construction after October 21, 1974	particulate matter 0.99 lb/MW-hr while producing silicon metal, ferrosilicon, calcium silicomanganes e zirconium  particulate matter 0.51 lb/MW-hr while producing high-carbon ferrochrome, charge chrome, standard ferromanganes e, silicomanganes e, silicomanganes e, silicomanganes e, calcium carbide, ferrochrome silicon, ferromanganes e silicon, silvery iron	Subpart XXX— Ferroalloys Production: Ferromanganes e and Silicomanganes e New and reconstructed submerged arc furnaces (05/20/99)	0.51 pounds per hour per megawatt, or 0.015 grains per dry standard cubic foot Crushing and screening equipment— particulate matter 0.022 gr/dscf	Electric Arc Furnace Best Available Control Technology limit	particulate matter 0.0018 gr/dscf
	20 % opacity		15 % opacity		20 % opacity		

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# 1.36 continued

The table above compares DEQ's Laterite Ore Production of Ferronickel rules adopted in 1972 with EPA's New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants, rules which would apply to any new Ferroalloy Production Facility in the state. Glenbrook Nickel was the only ferronickel smelter in the country. EPA was working on a National Emission Standards for Hazardous Air Pollutants, specifically for Glenbrook Nickel but withdrew the proposed rule. The following information is from the Technical Document for Promulgation of Standards: National Emission Standards for Ferroalloys Production: Ferromanganese and Silicomanganese Comment and Response Summary (April 13, 1999):

At the time of publication of the proposed rule (August 1998), the only existing facility in the United States producing ferronickel (Glenbrook Nickel Company) had suspended operations. Since that time, the company has said that they will permanently close the facility. The EPA has decided to exercise its authority to withdraw the proposed rule because there is no major source currently operating or expected to begin operating that would emit the HAP associated with ferronickel production. Should a new major source of ferronickel production commence operation after promulgation, the EPA will evaluate at that time how and whether to set a Maximum Achievable Control Technology standard. In any case, in the unlikely event a new ferronickel furnace were to be built, it would likely be subject to new source review requirements for particulate matter and section 112(g) preconstruction review for HAP.

The National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese is the closest standard available and is much more stringent with a 0.015 grains per dry standard cubic foot limit, which calculates to 0.66 pounds per ton of dry laterite ore produced from the electric arc furnace. The emission factor used in the Glenbrook Nickel permit for the electric arc furnace baghouses was 1.786 pounds per ton of dry Laterite ore produced, almost three times higher than the ferroalloy production National Emission Standards for Hazardous Air Pollutants limit. The National Emission Standards for Hazardous Air Pollutants also includes a grain loading limit for crushing and screening equipment (0.022 grains per dry standard cubic foot) which is lower than the OAR limit for this type of equipment (0.1 grains per dry standard cubic foot). The New Source Performance Standard opacity limit for Ferroalloy Production Facilities (15%) is lower than the DEQ and National Emission Standards for Hazardous Air Pollutants limits (20%).

The table above also includes a Best Available Control Technology limit for an electric arc furnace that triggered Prevention of Significant Deterioration in Arkansas in 2004. The Best Available Control Technology limit of 0.0018 grains per dry standard cubic foot was set for particulate matter emissions, even lower than the National Emission Standards for Hazardous Air Pollutants limit of 0.015 grains per dry standard cubic foot. Any new electric arc furnace producing ferronickel from laterite ore in Oregon would also trigger PSD and would be subject to standards at least as restrictive as those for the Arkansas facility. Therefore, repealing the Laterite Ore Production of Ferronickel rules will not weaken DEO's air permitting program.

Charcoal Producing Plant Rule Comparison								
Charcoal Produ	icing Plant OAR		S Subpart Y	Prevention of Significant Deterioration				
SOURCE	LIMIT	SOURCE	LIMIT	SOURCE	LIMIT			
340-240-0170 Charcoal Producing Plants charcoal producing plant sources including, but not limited to, charcoal furnaces, heat recovery boilers, and wood dryers using any portion of the charcoal furnace offgases as a heat source,	particulate matter 10.0 pounds per ton of char excluding char storage, briquette making, boilers not using charcoal furnace offgases, and fugitive sources charcoal producing plants exempt from 0.1 gr/dscf for sources after June 1, 1970 and process weight in division 226.	Subpart Y— Standards of Performance for Coal Preparation and Processing Plants  charcoal briquet manufacturing plants that process over 200 tons of coal a day and meet definition of "coal preparation plant"  commenced construction after May 27, 2009: Thermal dryers, pneumatic coal-cleaning equipment, coal processing and conveying equipment (breakers and crushers), coal storage systems, transfer and loading systems, and open storage piles	particulate matter 0.010 gr/dscf from thermal dryer; pneumatic coalcleaning equipment; mechanical vent 10 % opacity except equipment for loading, unloading, and conveying operations of open storage piles. fugitive coal dust control plan for open storage pile, includes loading, unloading, and conveying operations	Best Available Control Technology limit for charcoal furnaces, heat recovery boilers, and wood dryers using any portion of the charcoal furnace off- gases	particulate matter 1.6200 pounds per ton of dry wood (converted to 4.187 pounds per ton of char) for thermal oxidizer from rotary wood dryer, charcoal retort furnace and solvent treated briquette operations 0.3000 pounds per ton of dry briquettes limit for briquette coolers and dryers Adding these two BACT limits to obtain 4.487 pounds per ton of briquettes			

Category 1: Clarify and update air quality rules

# 1.36 continued

The table above compares DEQ's charcoal producing plant rules adopted in 1978 with EPA's New Source Performance Standards rules which would apply to any new charcoal producing plant in the state. DEQ's rules exempt new charcoal producing plants from the grain loading standard of 0.1 grains per dry standard cubic foot. The New Source Performance Standard requires a 0.010 grains per dry standard cubic foot limit, much more stringent than DEQ's rules. If the New Source Performance Standard grain loading limit of 0.010 grains per dry standard cubic foot applied, emissions from Royal Oak's heat recovery boiler would be effectively limited to 15 tons per year of particulate matter rather than the permitted 106 tons per year using the limit in OAR 340-240-0170 (10.0 pounds per ton of char produced).

The table above also includes Best Available Control Technology limits for a briquette manufacturing facility that triggered Prevention of Significant Deterioration in Mississippi in 2004. Adding the two Best Available Control Technology limits to obtain 4.487 pounds per ton of briquettes would make it comparable to the OAR limit of 10.0 pounds per ton of char produced. Any new briquette manufacturing facility in Oregon would also trigger PSD and would be subject to standards at least as restrictive as those for the Mississippi facility. Therefore, repealing the Charcoal Producing Plants rules will not weaken DEQ's air permitting program.

Sulfite Pulp Mill Rule Comparison				
Sulfite Pulp Mill OAR		CFR – NESHAP Subpart MM		
SOURCE	LIMIT	SOURCE	LIMIT	
Sulfite Pulp Mills	particulate matter 4	Subpart MM—	particulate matter	
OAR 340-234-0400	pounds per air dried	Chemical Recovery	0.020 gr/dscf	
existing and new	ton of unbleached	Combustion Sources		
sulfite pulp mills	pulp	at Kraft, Soda,		
		Sulfite, and Stand-		
recovery furnace		Alone Semi-		
stacks		chemical Pulp Mills		
		(04/15/98)		

The table above compares DEQ's Sulfite Pulp Mills adopted in 1971 with EPA's National Emission Standards for Hazardous Air Pollutants which would apply to any new sulfite pulp mill in the state. A direct emission limit comparison is not possible since the limits are in different terms and conversions would be specific to the individual facility. If one assumes that the DEQ rule for sulfite pulp mills is comparable to the statewide DEQ particulate matter standard of 0.1 grains per dry standard cubic foot (the more restrictive limit for sources built after 1970), the Subpart MM limit of 0.020 grains per dry standard cubic foot would be much more restrictive.

DEQ found no sulfite pulp mills in the Reasonably Achievable Control Technology/Best Available Control Technology/Lowest Achievable Emission Rate Clearinghouse but the control technology would probably be similar to other types of pulp mills. Therefore, repealing the Sulfite Pulp Mill rules will not weaken DEQ's air permitting program.

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

Category 1: Clarify and update air quality rules

1.37 Often times an operator cannot achieve 90 percent loads and should not be viewed as non-compliance during a source test. This is especially true of landfill gas control devices which can only operate at the specific load afforded by the available gas. DEQ should revise the testing requirement under full capacity to include "where possible emission should be tested at 90 percent of normal maximum operating rates.

DEQ received comments in this category from commenter 56 listed in the *Commenter section* below.

#### Response:

DEQ generally does allow testing at 90 percent of normal maximum operating rates. DEQ recognizes normal maximum operating rate may be significantly less than the rated capacity of the equipment. Operating rate requirements during compliance demonstrations are usually specified by permit condition. However, if the permit is mute on this issue, Source Sampling Manual provisions apply. If operating rate requirements cannot be satisfied, permittees should discuss this with staff at the DEQ regional office responsible for the facility, prior to conducting the compliance demonstration.

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

1.38 The proposed revised Continuous Monitoring Manual is not clear as to whether quarterly performance audits must be submitted to DEQ.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

Report submittals are addressed in Appendix C of the proposed Continuous Monitoring Manual. Section C.2.8 refers to reporting requirements for continuous monitoring system audits. DEQ updated section C.2.8 to clarify these requirements and renumbered them to C.2.7.

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

1.39 Section C.2.3.a.iii of the proposed Continuous Monitoring Manual requires generating an average where the aggregate number of opacity readings over the limit exceeds 3 minutes. This reference is to the opacity monitoring approach that DEQ is proposing to delete and replace with a federal-style 6 minute average. Therefore, we believe that Section C.2.3.a.iii should be deleted.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

DEQ deleted Section C.2.3.a.iii from the proposed rules. In addition, DEQ removed the NSPS reference in Section C.2.3.a.i.

	Summary of Comments and DEQ Responses		
Category 1: Clarify and update air quality rules			
	DEQ agrees with the commenter and changed the proposed rules in response to this comment.		
1.40	Section C.2.6 of the Continuous Monitoring Manual requires "specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected source." The language goes on to require that the nature and causes of any malfunction, the corrective action taken and the preventative measures adopted must be recorded as part of the continuous monitoring program, exceeding what is required by EPA.  DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the <i>Commenter section</i> below.		
	Response:		
	Section C.2.6 is consistent with requirements in division 214 and does not establish additional requirements. To prevent future inconsistencies, DEQ removed section C.2.5; renumbered section C.2.6 to C.2.5 and changed it to address this issue in a more generalized manner.		
	DEQ agrees with the commenter and changed the proposed rules in response to this comment.		

Category 2: Update particulate matter emission standards

2.1 The proposed particulate emissions standards regarding opacity limits for boilers are acceptable with additional reasonable controls.

The proposed changes to grain loading and opacity standards are a welcomed first step in protecting airsheds from pollution. DEQ must clarify that this rule change is one step in modernizing control requirements. DEQ should also immediately add the use of a significant figure as mandated by EPA's guidance.

DEQ received comments in this category from commenters 7 and 40 listed in the *Commenter section* below.

#### Response:

DEQ agrees with the commenter that adding a significant figure now to the grain loading standards to align with EPA guidance is a good idea. Currently the grain loading standards are 0.2 and 0.1 grains per dry standard cubic foot, depending on when the unit was installed. To report compliance with DEQ's grain loading standards, a source test result of 0.244 would be rounded to 0.24 and would be considered in compliance with the 0.2 grains per dry standard cubic foot limit. A source test result of 0.248 would be rounded to 0.25 grains per dry standard cubic foot and would be considered a violation of the standard. Therefore, DEQ proposes adding a significant figure to the grain loading standards and changing them from 0.2 grains per dry standard cubic foot to 0.24 and 0.14 respectively in order to maintain the current stringency of the limits.

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

DEQ did a good job in outreach to affected companies of the proposed changes to the grain loading and opacity requirements and listened to industry specific concerns. The need for the increased stringency that DEQ is proposing is still questionable.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

As stated in the Invitation to Comment, DEQ is proposing the changes for the following reasons:

EPA's adoption of a new  $PM_{2.5}$  24-hour National Ambient Air Quality Standards has resulted in 2 nonattainment areas in Oregon, with a third meeting the definition but not legally designated as such. This proposed rule change will reduce opacity in all areas and will help prevent future problems.

More and more areas of the state are special control areas due to population increases.

DEQ analyzed impacts from a typical pre-1970 source that has 40% opacity limit and 0.2 grains/dry standard cubic foot particulate matter limits located in the Klamath Falls  $PM_{2.5}$  nonattainment area.

Category 2: Update particulate matter emission standards

Grain Loading	Source Impacts	Source + Background
0.2 gr/dscf	30% of PM <sub>2.5</sub> National Ambient Air Quality Standard	70% of PM <sub>2.5</sub> National Ambient Air Quality Standard
0.10 gr/dscf	13% of PM <sub>2.5</sub> National Ambient Air Quality Standard	53% of PM <sub>2.5</sub> National Ambient Air Quality Standard

As the table above illustrates, a limit of 0.2 gr/dscf can consume 70% of the  $PM_{2.5}$  national ambient air quality standard when the background concentration is included. If a single source consumes 70% of the available airshed, it doesn't leave much room for other businesses to locate or expand in the same airshed.

DEQ is proposing lower statewide standards for both particulate matter and opacity because other affected businesses are located in areas that are similar to Klamath Falls. They are small communities that have high background concentrations due to woodstove emissions. These communities have similar terrain and similar weather with potential for air stagnation periods in the winter time.

The lower standards are proactive measures to help prevent violations of the current  $PM_{2.5}$  standard and potentially more stringent standards in the future. These proposed changes are similar to more stringent limits adopted in  $PM_{10}$  nonattainment areas, adopted as reactive measures to nonattainment area designation.

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

2.3 The commenter supports DEQ's proposal to remove the 30 second opacity rule applicable in the Portland Metropolitan area, which serves no health related function, is not part of the SIP and is a prime example of a regulation that should be deleted so as to streamline the Oregon program.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

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

DEQ's proposal to remove the 20% opacity limit currently applicable to fugitive dust is a good idea. However, the expansion of the fugitive dust requirements to apply the rule statewide and to essentially prohibit fugitive emissions that are visible for more than 18 seconds in any 6-minute period is concerning. This is a significant tightening of the standard and is objectionable. If DEQ insists on implementing OAR 340-208-0210(3) then, at the very least, a source should be allowed the option to demonstrate that it does not exceed 20 percent opacity as an alternative to having to reduce fugitive emissions to the sub-visible range for 95 percent of the time. This approach is consistent with that taken in many Title V permits currently and should be workable in the current rule.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and

Category 2: Update particulate matter emission standards

58 listed in the *Commenter section* below.

#### Response:

OAR 340-208-0200 through 340-208-0210 only applied in special control areas and areas where DEQ determined there was a nuisance, while the visible emissions requirement in OAR 340-208-0110 applied everywhere and applied to fugitive emission sources. Since reading opacity on fugitive emission sources using EPA Method 9 can be very difficult, DEQ proposed changes in the applicability of OAR 340-208-0110, omitting numerical opacity limits for fugitive emission sources. The distinction in OAR 340-208-0200 for special control areas and other areas where DEQ determines a nuisance exists may have made sense before when the numerical opacity limits applied to fugitive emission sources throughout the state. But now that numerical opacity limits will not apply to fugitive emission sources outside of special control areas and areas where DEQ determines there is a nuisance, fugitive emission controls need to apply in these areas too.

Rather than making a determination of a nuisance or trying to read opacity for fugitive emission source to comply with an opacity limit, DEQ has clarified that fugitive emissions must be abated upon order using work practice standards. DEQ also added a definition for particulate fugitive emissions:

"fugitive emissions are visible emissions that leave the property of a source for more than 18 seconds in a six minute period. The minimum observation time shall be at least six minutes unless otherwise specified in a permit."

Title V permits have the following permit condition as an applicable requirement and the associated monitoring and recordkeeping requirement for fugitive emissions:

<u>Applicable Requirement</u>: The permittee must not allow or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions must include, but not be limited to the following: [OAR 340-208-0210(2)]

use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;

application of asphalt, oil, water, or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;

full or partial enclosure of materials stockpiles in cases where application of oil, water, or chemicals are not sufficient to prevent particulate matter from becoming airborne;

installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;

adequate containment during sandblasting or other similar operations; and

covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne.

Monitoring and Recordkeeping Requirement: At least once each semi-annual reporting period

Category 2: Update particulate matter emission standards

and within 24 hours of receiving a particulate nuisance complaint, the permittee must visually survey the plant for any sources of excess fugitive emissions. For the purpose of this survey, excess fugitive emissions are considered to be any visible emissions that leave the plant site boundaries. The person conducting the observation does not have to be EPA Method 9 certified. However, the individual should be familiar with the procedures of EPA Method 9, including using the proper location to observe visible emissions. If sources of visible emissions are identified, the permittee must: [OAR 340-218-0050(3)(a)]

immediately take corrective action to minimize the fugitive emissions, including but not limited to those actions identified in condition XX; or

conduct a Modified EPA Method 9 test within 24 hours;

The permittee must maintain records of the fugitive emissions surveys, corrective actions (if necessary), and/or the results of any modified EPA Method 9 tests.

Based on the second sentence in the monitoring and recordkeeping requirement, fugitive emissions are defined as ANY visible emissions that leave the plant site boundaries. DEQ's proposed definition of fugitive emissions as those visible emissions that leave the property of a source for more than 18 seconds in a six minute period is less stringent than the existing Title V permit condition. DEQ determined that requiring abatement of fugitive emissions after 18 seconds is more realistic than abatement after any visible emissions that leave the plant site boundaries.

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

Category 3: Change permitting requirements for emergency generators and small natural gas or oil-fired equipment

DEQ should not change the current definition of "categorically insignificant activity," which includes natural gas and propane burning equipment rated at less than or equal to 2.0 million Btu/hr and distillate oil, kerosene or gasoline fuel-burning equipment rated at less than or equal to 0.4 million Btu/hour. It would be costly to sources and of the Department's limited resources to limit the fuel burning equipment qualifying as a categorically insignificant activity and subject this equipment to the full extent of regulation under the state's air quality rules. If DEQ insists on regulating those small units, it should at least design a process to accommodate those routine modifications easily and cheaply. Quantifying the emissions from those many small sources will also be extremely difficult, as emissions data on those units is scarce and testing so many units is not feasible.

The proposed definitions do not exclude temporary and rented units which could change the aggregate emissions if close to the de minimis emission rate and trigger permitting applicability.

DEQ received comments in this category from commenters 2, 3, 4, 7, 12, 20, 41, 42, 44, 46, 47, 48 and 58 listed in the *Commenter section* below.

DEQ proposed revisions to how four categorically insignificant activities are defined because DEQ found that emissions or potential to emit from those activities are significant at some sources, i.e. equal to or more than the de minimis emission rate for a regulated pollutant, which was the criteria in determining the original list of categorically insignificant activities. DEQ has also proposed other rule changes to ensure that including formerly categorically insignificant activities in a permit will not trigger new regulatory requirements, other than the requirement to include them in a source's permit and account for their emissions.

DEQ proposed changes to the list of categorically insignificant activities to exclude activities whose emissions would exceed the de minimis level and to account for their emissions for the purpose of properly administering the air permitting program. Revising these categories will result in some equipment no longer being considered categorically insignificant. DEQ reexamined the proposed changes to all four categorically insignificant activities and has revised each of them as explained below.

#### Categories (c) and (d)

The current rules read as follows:

- (c) Distillate oil, kerosene, and gasoline fuel burning equipment rated at less than or equal to 0.4 million Btu/hr;
- (d) Natural gas and propane burning equipment rated at less than or equal to 2.0 million Btu/hr;

Categories (c) and (d) cover generally similar types of equipment, with the primary difference being the type of fuel used. Therefore, under the proposed final rules, DEQ has combined them into a single category. DEQ also recognizes that a source may have a number of such devices, some of which may be too small to justify the effort to track them and include them in a permit. On the other hand, DEQ is aware of sources where the aggregated emissions from these devices exceed the de minimis level. For this category, DEQ has tried to find a balance between these conflicting considerations, and therefore will allow sources to split these devices into two

Category 3: Change permitting requirements for emergency generators and small natural gas or oil-fired equipment

groups if necessary. One group would still be considered categorically insignificant, provided certain conditions are met. The other group would not be considered categorically insignificant and must be included in the source's permit. DEQ recognizes that some sources will have to evaluate their equipment to determine it should be in the permit, but DEQ expects that most sources will not be affected by this change.

In reviewing categories (c) and (d), DEQ also noted that category (c) includes the phrase "fuel burning equipment," but category (d) does not include this phrase. The phrase "fuel burning equipment" has a particular meaning in DEQ's rules which is too restrictive for the type of equipment that DEQ intends to address in these categories. DEQ has therefore removed the phrase "fuel burning equipment."

DEQ agrees that temporary and rented units should be considered categorically insignificant and has proposed to replace subparagraph (d) in the definition of categorically insignificant with the following:

(d)Distillate oil, kerosene, gasoline, natural gas or propane burning equipment brought on site for six months or less for maintenance, construction or similar purposes, such as but not limited to generators, pumps, hot water pressure washers and space heaters, provided that any such equipment that performs the same function as the permanent equipment, must be operated within the source's existing PSEL;

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

3.2 DEQ proposed revisions to the categorically insignificant activity category for emergency generators and pumps are overly broad and overreaching. DEQ's proposal would make the definition of categorically insignificant emergency generators much too narrow, and impose new costs and administrative burdens on myriad sources with emergency generators the emissions from which are clearly insignificant.

First, DEQ should delete part B of the proposed definition. The mere fact that a source has an emergency unit rated at 500 horsepower or greater does not reflect the source's actual emissions from that unit, or other of its emergency generators. Second, DEQ should revise part A of the proposed definition to clarify that the assessment of a source's aggregate emergency generator emissions should be made by reference to actual emissions from those units over the calendar year.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 43, 44, 47, 48, 57 and 58 listed in the *Commenter section* below.

#### Response:

In recent years reciprocating internal combustion engines (RICE) used to power emergency generators and pumps have become more of a concern to DEQ for the following reasons:

EPA promulgated two New Source Performance Standards (NSPS), 40 CFR Part 60, Subparts IIII and JJJJ, and a National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, Subpart ZZZZ, for reciprocating internal combustion engines;

The construction of data centers equipped with a large backup generator capacity powered by

Category 3: Change permitting requirements for emergency generators and small natural gas or oil-fired equipment

emergency engines; and

Finding that at least one existing source is also equipped with a large backup generator capacity powered by emergency engines.

Prior to this rulemaking, all emergency generators and pumps were classified as "categorically insignificant activities" and have generally not been addressed in permits. In this rulemaking, DEQ proposed to exclude emergency engines from being categorically insignificant if their aggregate emissions, based on 100 hours per year of operation, exceed the de minimis rate. Commenters indicated that sources have no incentive to operate emergency engines more than necessary, and upon review, DEQ agrees. DEQ also concluded that this category can be simplified, as explained below.

Emergency engines are usually diesel engines, and nitrogen oxides is the pollutant emitted that will exceed the de minimis level first, assuming the use of ultra-low sulfur diesel fuel. The de minimis emission level for nitrogen oxides is 1 ton per year. DEQ found there are sources that have enough emergency engine capacity to emit more than 1 ton per year from maintenance and readiness testing operation of their emergency engines. Therefore, DEQ determined it is appropriate to revise the category of emergency generators and fire pumps in the definition of categorically insignificant activities to exclude emergency engines if they exceed a specified threshold.

DEQ originally proposed to change this category to read as follows:

Stationary emergency generators and pumps used only during loss of primary equipment or utility service due to circumstances beyond the reasonable control of the owner or operator, or to address a power emergency; unless one or both of the following conditions is met, then all of this equipment is no longer categorically insignificant:

- (A) The aggregate emissions from stationary emergency generators and pumps are greater than the de minimis level for any regulated pollutant based on the readiness and testing hours of operation allowed by NSPS or NESHAP requirements or some other hours of operation specified in a permit; or
- (B) Any individual stationary emergency generator or pump is rated at 500 horsepower or more.

In (A), the readiness and testing hours of operation allowed by NSPS or NESHAP requirements is 100 hours per year. Commenters pointed out that sources have no incentive to actually operate emergency engines for this number of hours, and DEQ agrees. The proposed language would allow a source to specify a different number of hours per year in a permit, but this would obviously require revising a permit to specify the number of hours. Upon reconsideration, DEQ concluded that the proposed change would create an additional workload for affected sources as well as for DEQ with little or no environmental benefit.

Instead, DEQ proposes to establish a conservative default aggregate engine horsepower level at which emissions can reliably be assumed to not exceed the de minimis level. DEQ believes that this default level will allow emergency generators and pumps at the majority of sources to still be considered categorically insignificant without requiring emissions calculations or permit revisions to specify the number of operating hours used for the emissions calculations. If

Category 3: Change permitting requirements for emergency generators and small natural gas or oil-fired equipment

the aggregate engine horsepower exceeds the threshold, then all of the engines at the source are not categorically insignificant.

DEQ conservatively estimated the default maximum aggregate horsepower as explained below.

DEQ used the uncontrolled diesel engine nitrogen oxides emission factor of 0.024 lb/hp-hr from AP-42, Table 3.4-1, and

DEQ used 28 hours per year of operation for testing and maintenance, determined as follows:

Two information sources<sup>2</sup> indicate that emergency generators should be tested for 30 minutes per month. Another source<sup>3</sup> indicated that the 30 minutes does not include warm-up and cooldown time; DEQ has therefore assumed a minimum of 1 hour of operation per month. In addition, this source indicates that certain emergency generators, such as those at hospitals, must perform an annual load test that lasts for a minimum of two hours. DEQ assumes this also does not include warm-up and cool-down and therefore assumes a total of 3 hours of operation. One hour of operation for 11 months plus three hours in one month gives a total minimum operating time of 14 hours per year. To be conservative, DEQ has doubled this value to 28 hours per year.

Based on the above, the default maximum horsepower rating is:

1 ton per year  $\times$  2000 pounds per ton / (0.024 pound/horsepower-hour  $\times$  28 hours per year) = 2,976 horsepower (rounded to 3,000 horsepower)

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

<sup>2</sup> Maintaining Emergency and Standby Engine-Generator Sets Hartford Steam Boiler One State Street P.O. Box 5024 Hartford, CT 06102-5024 Tel: (800) 472-1866 www.hsb.com June 2014

Power topic #7004 | Technical information from Cummins Power Generation Maintenance is one key to diesel generator set reliability > White paper By Timothy A. Loehlein, Project Manager

- <sup>3</sup> INSPECTION AND TESTING OF EMERGENCY GENERATORS, available at: http://www.health.state.mn.us/divs/fpc/Gensets2.pdf
- 3.3 DEQ has proposed to change the existing categorically insignificant activity category of "oil/water separators in effluent treatment systems" so as to limit that category to "[u]controlled oil/water separators in effluent treatment systems with a throughput of less than 400,000 gallons per year." This proposed change would cause numerous oil/water separators that remove petroleum oils from storm water or wastewater to lose their status as categorically insignificant units. These systems are typically designed to prevent oil and other volatile liquids from reaching storm water or wastewater outfalls. Under DEQ's proposal, sources would be required to account for any volatile organic compounds emissions from those systems in their Plant Site Emission Limit calculations and to seek construction approval before installing or modifying any qualifying oil/water separator.

DEQ received comments in this category from commenters 2, 3, 4, 7, 12, 20, 41, 42, 43, 44, 47, 48, 57 and 58 listed in the *Commenter section* below.

Category 3: Change permitting requirements for emergency generators and small natural gas or oil-fired equipment

#### Response:

DEQ agrees with the commenter and changed the categorically insignificant activity category of "oil/water separators in effluent treatment systems" to the following:

- (bbb) Uncontrolled oil/water separators in effluent treatment systems, excluding systems with a throughput of more than 400,000 gallons per year of effluent located at the following sources:
- (A) Petroleum refineries;
- (B) Sources that perform petroleum refining and re-refining of lubricating oils and greases including asphalt production by distillation and the reprocessing of oils and/or solvents for fuels; or
- (C) Bulk gasoline plants, bulk gasoline terminals, and pipeline facilities;

The AP-42 factor for which the proposed 400,000 gallon per year criteria was derived is specific to petroleum refineries (<u>AP42, Table 5.1-2</u>). <u>Lane Regional Air Pollution Authority permits a gasoline distribution terminal</u> that requested to have their oil/water separator included in the Plant Site Emission Limit since it is estimated to be greater than 1 ton per year volatile organic compounds de minimis level.

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

3.4 DEQ should increase the aggregate emission rate for applicability to a threshold that is greater than the de minimis rate.

DEQ received comments in this category from commenter 46 listed in the *Commenter section* below.

#### Response:

DEQ established the aggregate insignificant emission rate at one ton per year for most pollutants because of the Plant Site Emission Limit rules. At levels over one ton per year, the emissions would need to be included in the Plant Site Emission Limits.

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

Category 4: Establish two new state air quality area designations, "sustainment" and "reattainment," to help areas avoid and more quickly end a federal nonattainment designation

4.1 Instead of spending time and energy creating from scratch a brand new, untested area designation program, DEQ should be investing its energy, resources, and technical knowledge in helping the Town of Lakeview undertake the process that the Clean Air Act lays out to deal with areas violating the National Ambient Air Quality Standards. Choosing Lakeview as a sustainment area is clearly a poor test case. It is unclear whether the sustainment area program is sufficient to actually help an area comply with the National Ambient Air Quality Standards, potentially putting an area in a limbo between attainment and nonattainment while Oregonians' health is being affected.

Lakeview, a proposed sustainment area, suffers from air quality problems that are driven by woodstove smoke and no amount of additional regulation can change the Lakeview Area's air quality status. DEQ's Sustainment Area proposal is likely to be the very thing that makes it impossible for the Lakeview Area to actually improve its air quality. Since February 2013, the Town of Lakeview, Lake County, DEQ, and Collins have been actively engaged in US EPA's PM Advance Program hopefully eliminating the need for the Sustainment Area concept to be applied to the Lakeview Area. If the Lakeview PM Advance Plan is successfully implemented and other jurisdictions like Prineville or Burns utilize the PM Advance option, there is no need for DEQ to impose additional regulations such as a "Sustainment Area" designation for the Lakeview area or any other local jurisdiction.

DEQ received comments in this category from commenters 12 and 40 listed in the *Commenter section* below.

#### Response:

DEQ is not relying on the new area designations to bring air quality in Lakeview into attainment, nor does DEQ intend for the new area designations to replace nonattainment designations or nonattainment planning. While the new sustainment area may be part of the overall approach that DEQ's air quality planning program, EPA and local governments use to try to bring an area back into compliance with National Ambient Air Quality Standards, it primarily affects the air quality permitting program, not the air quality planning program.

DEQ proposed the new area designations to at least partially eliminate a permitting roadblock that exists when air quality exceeds an ambient air quality standard but the area is still designated as attainment or unclassified. The sustainment area designation, along with other revisions to the new source review permitting program, is also intended to help address the primary source or sources of air quality problems in areas like Lakeview by encouraging new or expanding sources to obtain offsets from the primary source or sources of the air quality problem. DEQ does not see the new area designations as a replacement for the existing regulatory structure that addresses areas with air quality problems, but as an addition to that structure.

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

4.2 DEQ's proposal would make the current system more complex by adding two new designations: attainment/sustainment and nonattainment/reattainment. The proposed rules use many cross-references and refer to different regulatory sections. In addition, DEQ's proposal to differentiate between "major sources" and "federal major sources" in nonattainment and

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maintenance areas will put "major sources" under a lesser level of scrutiny.

DEQ has not identified any areas where designation as reattainment would currently be applied. There is no way to understand the practical application of the reattainment program without any context to apply it. The reattainment program also raises serious questions of whether the proposal complies with the anti-backsliding provisions of the Clean Air Act and whether the proposal would weaken Oregon's State Implementation Plan .

For these reasons, DEQ should abandon the proposed changes to the New Source Review program until an actual need is identified.

DEQ received comments in this category from commenter 40 listed in the *Commenter section* below.

#### Response:

DEQ agrees that adding the sustainment and reattainment areas makes the rules somewhat more complex, but DEQ does not agree that the revised rules are significantly more complex than they were from 2001 through early 2015. The area designations in the 2001/2015 New Source Review rules have unique requirements tailored to each type of area. A user of the rules had to identify whether a source was subject to New Source Review and then find the areaspecific requirements. Although there are now five types of areas, the same general approach will apply.

DEQ acknowledges that the rules frequently refer readers to other sections, but a deliberate effort was made in this rulemaking to keep such referencing to a minimum. Thus, the proposed State New Source Review sections in OAR 340 division 224 are indeed somewhat duplicative, but this was done to keep as many requirements in one place as possible. The structure of each State New Source Review rule section also follows the structure of the 2001/2015 New Source Review rules.

DEQ does not agree that "major sources" will be under a lesser level of scrutiny. As explained in response 6.1 below, sources that were formerly subject to major New Source Review under the 2001/2015 New Source Review rules will now be subject to Type A State New Source Review. Type A State New Source Review generally retains requirements that are similar to the 2001/2015 New Source Review requirements. This was done specifically to avoid backsliding and to maintain program continuity.

DEQ agrees that no areas are proposed to be designated as reattainment at this time. While the case-by-case determination suggested by commenters has merit, DEQ must work within rules which usually take years to revise, making a case-by-case approach practically unworkable. DEQ has instead used this rulemaking to broaden the limited number of cases we can work within to provide more flexibility for the permitting program.

Regarding backsliding, DEQ conferred with EPA Region 10 to ensure that these rule proposals would not be considered backsliding and would be approvable. As noted above, the requirements for sources that were formerly subject to the 2001/2015 New Source Review program will generally continue to apply even though some of those sources will now be covered by the State New Source Review program.

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

4.3 Proposed changes to the New Source Review requirements are insufficient to protect air quality. It is unclear whether this program would even work in areas that are above the National Ambient Air Quality Standards. A requirement of State New Source Review is that the source demonstrates it will not cause or contribute to a new violation of the National Ambient Air Quality Standards even if their emissions model below the significant impact level. Unless the modeling shows zero impact, it is unclear whether, even under the sustainment designation, new sources and modifications can meet the requirements of State New Source Review.

DEQ should not complicate the Oregon regulatory structure with the addition of sustainment areas, a concept that has no basis in the federal program or any other state program. As proposed, a major new source seeking to locate in a designated sustainment area would have to comply with all the extremely stringent Prevention of Significant Deterioration permitting requirements plus demonstrate a net air quality benefit. No source has ever been able to meet Oregon's unique requirements for demonstrating a net air quality benefit absent a legislatively mandated alternative process that most facilities are not eligible to utilize. Therefore, this new sustainment area designation and the proposed set of unprecedented regulatory requirements will make it difficult for these areas to attract or expand business and, therefore, employment.

DEQ received comments in this category from commenters 12 and 40 listed in the *Commenter section* below.

#### Response:

DEQ does not agree with the commenter.

A source seeking to locate in an attainment area where air quality exceeds National Ambient Air Quality Standards has little or no chance of showing compliance with the air quality analysis requirement. For such a source, having the area designated as nonattainment would eliminate the requirement for the air quality analysis and replace it with requirements to obtain offsets and demonstrate net air quality benefit. Although these requirements are not easy to meet, they are at least possible. However, it takes years to change the area designation, during which time an effective permit roadblock exists.

DEQ created the sustainment area designation to remove the permitting roadblock, at least for those sources subject to State (minor) New Source Review. Sources that are subject to Major New Source Review in such areas will still face the permitting roadblock because the Major New Source Review requirements must comply with the federal Prevention of Significant Deterioration requirements; DEQ cannot make these requirements less stringent. These sources must still meet the air quality analysis requirement, which, as stated above, will be difficult if not impossible. DEQ is well aware that the sustainment area requirements for Major New Source Review do not change the situation and tried to be clear about this in the rulemaking public notice and meetings.

To remove the permitting roadblock for sources subject to State New Source Review, DEQ essentially blended the requirements for attainment and nonattainment areas to allow sources a choice of performing the air quality analysis or of obtaining offsets and demonstrating net air quality benefit. In reality, the air quality analysis requirements will likely still be very difficult

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or impossible to meet, leaving offsets and net air quality benefit the only real choice. In effect, for sources subject to State New Source Review, the requirements are similar to those in a nonattainment area.

The sustainment area designation is a pollutant-specific designation and will affect permitting only for the pollutant that is close to or exceeding the National Ambient Air Quality Standard. For all other pollutants the area will still be designated attainment/unclassified.

Lakeview is currently designated as an attainment/unclassified area. To obtain a permit, a source must complete an air quality analysis that demonstrates that their emissions do no cause an exceedance of a National Ambient Air Quality Standards. However, if the air quality already exceeds a National Ambient Air Quality Standards, as it does in Lakeview, this test is very difficult or impossible to pass.

The only alternative prior to this rulemaking was to designate the area as a nonattainment area. In a nonattainment area, the air quality analysis is not required but other requirements must be met, such as obtaining offsets and meeting the net air quality benefit requirements. However, it takes years to change the area's designation. During that time, the area remains designated as attainment/unclassified and obtaining a permit is practically impossible.

Another aspect of the rules that made obtaining a permit very difficult or impossible was the net air quality benefit requirements. In this rulemaking, the net air quality benefit requirements have been revised to replace the nearly impossible to meet requirement with one that is not impossible to meet but is still protective of air quality. DEQ does not claim that the new requirement is easy to meet, as it is intended to protect air quality in an area where air quality is already close to or exceeding a National Ambient Air Quality Standard.

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

Category 5: Designate Lakeview as a state sustainment area while retaining its federal attainment designation

DEQ must not designate Lakeview as a state sustainment area and allow the county to shirk the nonattainment area requirements of the CAA. Lakeview has consistently exceeded the 24-hour PM2.5 National Ambient Air Quality Standards in the past three years and should be redesignated as a nonattainment area.

Allowing continued growth of industrial emissions, while focusing on residential woodstoves, is unlikely to move Lakeview away from a violation of the PM2.5 National Ambient Air Quality Standards. Under the sustainment designation, new industrial emission sources would in fact replace rather than reduce emissions based on the 0.1:1 offsets ratio. The offset ratios chosen by DEQ are wholly insufficient to achieve the goals of the sustainment program to keep an area under the National Ambient Air Quality Standards, let alone reducing emissions in an area violating the National Ambient Air Quality Standards enough to help the area get below dangerous levels. This offset ratio is lower than is required in maintenance areas, which are actually in compliance with the air quality standards. DEQ should implement an offset ratio for sustainment areas that is at least 1:1.

DEQ likely underestimates emissions from the wood products industry. Much like wood stoves, emissions from the wood products industry varies due to seasonal changes in fuel source. DEQ's analysis also ignores the maintenance, start up and shut down times that are often necessary as a part of industrial processes and which lead to greater emissions. DEQ has also failed to demonstrate that industrial emissions will not also suffer from the inversion issues in the winter that the agency attributes to wood stoves. Thus industrial sources in fact may result in a greater adverse impact to the region.

DEQ should get an accurate inventory by monitoring emissions in the region, and only then craft a program to address sources that have been demonstrated to be priority sources of PM2.5 emissions. What's more, DEQ is seeking to redesignate Lakeview as a sustainment area in combination with Lakeview's proposal to join EPA's PM Advance program. Once instituted, EPA is likely to consider these "buffer" programs in addition to any National Ambient Air Quality Standards violation when considering whether to redesignate Lakeview as nonattainment. Lakeview's request for redesignation from the Environmental Quality Commission cites to inaccurate data.

DEQ received comments in this category from commenter 40 listed in the *Commenter section* below.

#### Response:

DEQ disagrees with the comment that Lakeview should not be designated a sustainment area. DEQ further disagrees that a sustainment area designation will allow the county to shirk the express requirements of the CAA. The sustainment area designation only changes the state permitting requirements in the area; it does not change any other aspect of DEQ's air quality program. Activities directed toward improving air quality in Lakeview are administered by the Air Quality Planning program, not the permitting program, and will continue.

DEQ disagrees that there is not sufficient data to show that wood-burning is the primary cause of PM2.5 24-hour National Ambient Air Quality Standards violations. Reducing emissions from burning wood will have the greatest effect on 24-hour PM2.5 concentrations and compliance

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with the National Ambient Air Quality Standards.

DEQ agrees with commenters that the proposed offset ratio of 0.1:1 is too low. DEQ reconsidered this offset ratio and concluded that an offset ratio of 0.1:1 was inconsistent with other parts of the overall net air quality benefit requirement, as explained below.

Net air quality benefit has two parts: obtain offsets at the specified ratio, and perform an air quality modeling analysis to show that air quality impacts are below specified levels. The air quality modeling analysis may involve modeling the new source's emissions increases along with emissions decreases in the designated area, where the emissions decreases include the offsets. DEQ believes it is very unlikely that a new source could pass this test if emission reductions from offsets were only 10 percent of the source's emissions increase. DEQ has therefore increased the offset ratio in sustainment areas to 1.2:1, with the option to reduce the ratio to not less than 1.0:1 by obtaining offsets from priority sources.

DEQ is aware that emissions from wood-fired boilers tend to be higher during the winter months due to increased heat needs. DEQ's belief that residential wood burning is a major contributor to 24-hour PM2.5 National Ambient Air Quality Standards exceedances in Lakeview is based on examination of the PM2.5 monitoring results compared to time of day and overnight temperatures. Exceedances occur on cold winter nights when wood burning for home heating is high. Despite the clear relationship with residential wood burning, DEQ does not discount the contribution from other sources, including industry. Although the rules for a sustainment area are structured to encourage obtaining offsets from woodstoves, obtaining all offsets from woodstoves is likely impossible and any non-woodstove offsets will likely be obtained from industrial sources. Further, the rules that a new source must comply with are intended to ensure that the new emissions do not exacerbate the existing air quality problems. The new rules change, but do not eliminate the stringent requirements that a new industrial source must meet.

DEQ appreciates and supports the efforts that Lakeview is making to bring air quality back below the National Ambient Air Quality Standards. The intent of the sustainment area designation is not to hinder or undercut any of these efforts; rather, the intent is to remove a permitting roadblock so that at least some sources can obtain permits.

DEQ agrees with some of the comments and will change the rules amendments in response to the comment.

Category 6: Change the New Source Review preconstruction permitting program

As part of the response to these comments, DEQ is providing a general overview of how the structure of the new New Source Review rules relates to the structure of the previous (2001 through early 2015) New Source Review rules. The purpose of this overview is to help clarify the changes and DEO's responses to comments.

Note that in these responses, the following terms are used:

"2001/2015 New Source Review" refers to the New Source Review program in OAR 340 division 224 as it existed from 2001 through early 2015;

"Plant Site Emission Limit rule" refers to OAR 340-222-0041 as it existed from 2001 through early 2015; and

"Major New Source Review" and "State New Source Review" refer to the new major and minor New Source Review program proposed in this rulemaking and found in the proposed OAR 340 division 224.

The new source review program consists of two distinct components, referred to as major New Source Review and minor New Source Review. Under the 2001 through early 2015 rules, major New Source Review was covered by OAR 340 division 224 and in Oregon was referred to simply as New Source Review. For clarity, the 2001 through early 2015 New Source Review program will be referred to in this discussion as 2001/2015 New Source Review. Minor New Source Review was covered by OAR 340-222-0041, and was commonly called the "Plant Site Emission Limit rule."

Under the new rules, both major and minor new source review are covered primarily under OAR 340 division 224. The major New Source Review program is referred to as "Major New Source Review," while the minor new source review program has been labeled "State New Source Review." In addition, State New Source Review is subdivided into Type A State New Source Review and Type B State New Source Review. This was done to maintain program continuity; the following discussion should help clarify this.

Category 6: Change the New Source Review preconstruction permitting program

The 2001/2015 New Source Review and the new Major and State New Source Review requirements are area-specific and are compared below for different areas and emission rates:

### Attainment/unclassified areas

Applies to emissions  $\geq SER^3$ , and emissions  $\geq NB^4 + SER$ 

Scenario	In current rules, addressed under	In proposed rules, addressed under
Federal major source; with a major modification	2001/2015 New Source Review	Major New Source Review
Federal major source; no major modification	Plant Site Emission Limit rule	Type B State New Source Review
Not a federal major source; with a major modification	Plant Site Emission Limit rule	Type B State New Source Review
Not a federal major source; no major modification	Plant Site Emission Limit rule	Type B State New Source Review

### Nonattainment and Maintenance Areas

Under the 2001 through early 2015 rules, OAR 340 division 224 could apply to sources with emissions greater than or equal to the SER. However, to clearly show the relationship between the previous and new rules for nonattainment and maintenance areas, two tables are presented below based on the source's emissions.

Applies to emissions  $\geq 100$  tons per year, and emissions  $\geq NB + SER$ 

Scenario	In current rules, addressed under	In proposed rules, addressed under
Major modification	2001/2015 New Source Review	Major New Source Review
No major modification	Plant Site Emission Limit rule	Type B State New Source Review

Applies to emissions  $\geq$  SER but less than 100 tons per year, and emissions  $\geq$  NB + SER

Scenario	In current rules, addressed under	In proposed rules, addressed under
Major modification	2001/2015 New Source Review	Type A State New Source Review
No major modification	Plant Site Emission Limit rule	Type B State New Source Review

<sup>&</sup>lt;sup>3</sup> Significant Emission Rate, defined in rules

<sup>&</sup>lt;sup>4</sup> Netting Basis, defined in rules

Category 6: Change the New Source Review preconstruction permitting program

As can be seen in the tables above, all scenarios that were subject to the Plant Site Emission Limit rule will be subject to Type B State New Source Review under the proposed rules, and most scenarios that were subject to 2001/2015 New Source Review will be subject to Major New Source Review under the proposed rules. However, there is one scenario above that was subject to 2001/2015 New Source Review that will not be subject to Major New Source Review; it will instead be subject to Type A State New Source Review under the proposed rules; this scenario is identified in the last table above.

Under the current rules, certain other rules are linked to 2001/2015 New Source Review, such as the ability to increase a source's netting basis; however, these other rules are not linked to the PSEL rule. DEQ's intent in this rulemaking was to maintain program continuity and Type A State New Source Review was defined for this purpose. Although Type A State New Source Review program is part of the State (i.e. minor) New Source Review program, it must retain characteristics of the 2001/2015 New Source Review program. Therefore, Type A State New Source Review is characterized as follows:

it is derived from the 2001/2015 New Source Review program for nonattainment and maintenance areas for sources with emissions from the SER to 99 tons per year; subject sources propose to make a major modification;

subject sources are required to perform a Best Available Control Technology analysis; and subject sources can increase their netting basis through a Type A State New Source Review permit action.

However, under State New Source Review the state is not bound by the federal major new source review program and therefore has somewhat more flexibility to change the requirements. DEQ proposes to raise the Major NSR threshold to 100 tons per year in nonattainment and maintenance areas (as well as the proposed sustainment and reattainment areas) in order to take advantage of that additional flexibility to at least partially remove permitting roadblocks as described elsewhere in this response to comments.

DEQ has added unnecessary complexity to the new source review process without any proportional environmental benefit. The majority of the changes were never discussed with the fiscal impacts advisory committee or otherwise. The commenter suggests that this part of the rule be separated from the remainder and undergo a public stakeholder discussion process prior to reproposal.

DEQ received comments in this category from commenters 2, 3, 4, 7, 12, 20, 41, 42, 44, 46, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

DEQ acknowledges that the revised new source review program appears to be, and in some respects is, more complex; however, DEQ has determined that the changes are necessary and environmentally beneficial. The factors that led to a more complex set of rules are:

- development and inclusion of the new sustainment and reattainment areas; and
- changing the major new source review threshold from the SER to 100 tons per year; and

Category 6: Change the New Source Review preconstruction permitting program

• a recent court ruling to the effect that demonstrating a source's PM2.5 impacts were less than the SIL was not sufficient to ensure no new violation of a National Ambient Air Quality Standards, and DEQ's view that this ruling should be viewed as applying to all criteria pollutants.

Developing the new sustainment and reattainment areas added complexity since rules had to be written for these two new areas. However, the new requirements are all based on existing requirements.

Changing the major New Source Review threshold also added a degree of complexity to the rules. Prior to changing the major New Source Review threshold, 2001/2015 New Source Review applied to sources that emitted the nonattainment or maintenance pollutant at the SER or more in a nonattainment or maintenance area.

DEQ acknowledges that some requirements in the proposed rules were inadvertently made more complex. Based on comments received, DEQ has revised the rules to eliminate those unintentional changes. Specifically, OAR 340-224-0030 and -0038, as proposed, would have applied to Major New Source Review, Type A State New Source Review and Type B State New Source Review. These rules formerly applied only to 2001/2015 New Source Review, not to sources subject only to the Plant Site Emission Limit rule<sup>5</sup>. These rules have been revised so they apply only to major New Source Review and Type A State New Source Review.

DEQ disagrees with the comment that the majority of the changes were never discussed with the fiscal impacts advisory committee. In January 2014, DEQ provided the fiscal advisory committee and interested parties the Notice of Proposed Rulemaking, a draft copy of the proposed rules (which included the proposed changes to the New Source Review program), the list of questions required to be answered by the committee, and a summary of the proposed changes to the opacity and grain loading standards. In addition, DEQ prepared a presentation on the portion of the proposed rules that would have fiscal impacts: the proposed opacity and grain loading standards having the largest fiscal impact and the proposed changes to categorically insignificant activities and the New Source Review having minimal fiscal impact.

Stakeholder meetings were held in Portland, Pendleton, Eugene and Medford in August to discuss preliminary rulemaking concepts. Public hearings were held in Portland, Pendleton, Bend, Eugene, and Medford with an informational session held before the hearing. Given the extended length of the comment period, thirteen weeks instead of 30 days, adequate time has been provided for review of the proposed rules. Therefore separate stakeholder meetings and reproposal are not necessary.

DEQ agrees with some of the comments and changed the proposed rules in response to this comment.

DEQ should revise OAR 340-224-0010(2) so that it does not require that State New Source Review sources have to comply with OAR 340-224-0038. OAR 340-224-0038 requires that a source subject to New Source Review assess secondary emissions. This requirement has never been imposed on minor New Source Review permittees before and it is a significant increase in stringency.

<sup>&</sup>lt;sup>5</sup> See discussion in 6.1.

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DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

### Response:

DEQ agrees with the commenter and changed the proposed rules so that OAR 340-224-0038 would apply only to Type A State New Source Review and Major New Source Review construction approvals, which are the sources that are subject to NSR under the 2001/2015 NSR rules.

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

The proposed rule language does not appropriately treat sources that are "federal majors" for other pollutants. The Supreme Court decision, as well as EPA's July 24, 2014 guidance, are clear that a source should only be subject to Prevention of Significant Deterioration if it triggers Prevention of Significant Deterioration for another pollutant. The Prevention of Significant Deterioration application need only address Best Available Control Technology for greenhouse gases. However, the proposed language in OAR 340-224-0010(5)(b) goes well beyond this requirement. As proposed, a source that is a Federal Major Source for another pollutant would become subject to Prevention of Significant Deterioration if it has an emissions increase of 75,000 tons per year CO<sub>2</sub>e over the netting basis even if it was not seeking any change in its non-GHG emissions. DEQ should clarify that in order for greenhouse gases to be regulated under OAR 340-224-0010(5)(b), the source must be a Federal Major Source for a non-GHG pollutant, trigger Prevention of Significant Deterioration for a non-Prevention of Significant Deterioration pollutant, and as a result of the current project exceed the GHG netting basis by 75,000 tons per year CO<sub>2</sub>e or more.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

### Response:

DEQ agrees with commenters and has revised the GHG Prevention of Significant Deterioration applicability criteria in OAR 340-224-0010 to require a GHG Best Available Control Technology analysis only if the source in question is a federal major source, which excludes greenhouse gases; is subject to Prevention of Significant Deterioration for another pollutant; has an increase in greenhouse gas emissions more than or equal to the SER over the netting basis; and has a major modification for greenhouse gases.

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

DEQ has proposed to revise some of the rules in OAR 340-224 to make references to "designated areas." DEQ also proposes to add a definition to OAR 340-200-0020 that would define a designated area as practically any place on land in the State of Oregon. This definition creates significant drafting issues in division 224. DEQ should carefully scrutinize its use of the term "designated area" and not extend net air quality benefit requirements to attainment or unclassified areas.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

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### Response:

DEQ believes this comment refers to proposed new sections in several rules in division 224 that pertain to sources located in a designated area whose emissions also impact other designated areas. These proposed rules include the following phrase: "...must also meet the requirements for demonstrating net air quality benefit under OAR 340-224-0510 and OAR 340-224-0540 for designated areas...." In addition, rules OAR 340-224-0500 through -0540 are under the heading "Net Air Quality Benefit Emission Offsets."

The term "net air quality benefit" broadly includes offsets and a modeling demonstration; however, the modeling demonstration alone is commonly referred to as net air quality benefit. Given the wording discussed in the preceding paragraph, DEQ understands how the rules may appear to require net air quality benefit in attainment or unclassified areas. However, the rules themselves are clear about the requirements that must be met for other areas impacted by the source, and net air quality benefit is not required for attainment or unclassified areas.

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

DEQ should remove the proposed requirement to send both State New Source Review permit applications and major NRS applications to EPA. Experience shows that EPA is not interested in receiving New Source Review applications as EPA has no involvement with the implementation of Oregon's SIP approved Prevention of Significant Deterioration, Maintenance and nonattainment New Source Review programs.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

DEQ should revise its rule requiring notification of EPA of permit applications subject to New Source Review to render it enforceable. History has demonstrated that permit applicants fail to submit a copy of the New Source Review permit application directly to EPA, without consequence. DEQ should revise the application forms for New Source Review permit actions or change the rule. DEQ also committed to notifying EPA by separate email or letter for future applications subject to New Source Review.

DEQ received comments in this category from commenter 40 listed in the *Commenter section* below.

### Response:

DEQ agrees with some of the comments and has revised OAR 340-216-0040(7) to clarify that a copy of an application subject to Major NSR or Type A State NSR under OAR 340 division 224 must also be sent to EPA. DEQ also determined the most effective way to ensure that applicants submit a copy of Major New Source Review permit applications to EPA is to add this requirement to the permit application directions and forms.

DEQ agrees with some of the commenters and changed the proposed rules in response to this comment.

DEQ should delete the proposed requirement requiring a source seeking a first extension must update its control technology analysis. According to EPA, redoing or reviewing the Best Available Control Technology analysis should not be necessary for the first extension request.

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Pollution control technologies are unlikely to be available within the first 18-month period. The commenter also requests that the payment requirement be changed to simple technical permit modification fee for the first extension period since there is no air quality analysis involved.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

The commenter recommends that for the first extension, the source also be required to review the original Lowest Achievable Emission Rate or Best Available Control Technology analysis to determine if lower emission limits are feasible. For both a first and a second extension, the commenter recommends the source be required to evaluate Lowest Achievable Emission Rate or Best Available Control Technology for any pollutants with National Ambient Air Quality Standards that have been developed since the original application was submitted. The commenter recommends the rules require DEQ to notify Federal Land Managers about requests for permit extensions.

DEQ received comments in this category from commenter 39)

#### Response:

The 01/31/14 EPA guidance on extensions of Prevention of Significant Deterioration permits states that the first permit extension request should include a detailed justification of why the source cannot commence construction within the initial 18-month deadline. For example, relevant factors for this justification could include ongoing litigation over the Prevention of Significant Deterioration permit, natural disasters that directly affect the facility, significant or unusual economic impediments (including inability to secure financial resources necessary to commence construction) and/or delays in obtaining other required permits. Improvements in pollution control technology for criteria pollutants have not been occurring as rapidly as was anticipated at the time of the earlier draft EPA policies on permit extensions. Therefore, EPA guidance does not recommend review or redo of substantive permit analyses such as BACT, air quality impacts analysis or PSD increment consumption analyses for a first permit extension request.

A request for a second extension of the commencement of construction deadline should include a substantive re-analysis and update of Prevention of Significant Deterioration requirements. Generally, the benefits of conducting an updated substantive review of the PSD requirements after 36 months from the initial issuance of the PSD permit would outweigh the considerations that favor an initial extension without such analysis. While the EPA's experience is that pollution control technology for criteria pollutants has not been advancing at the same rate that it once was, the EPA determined that it is more likely that technology and air quality considerations will become outdated when construction does not begin until36 months or longer after the issuance of a PSD permit. Therefore, when a second extension of the deadline for commencing construction is requested, agencies should evaluate on a case by-case basis whether a second permit extension is justified. In some cases, the permittee should be asked to apply for a new PSD permit rather than conduct its review through a permit extension proceeding.

EPA's guidance also states:

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"it is appropriate and consistent with the terms in 40 CFR 52.21(r)(2) to evaluate on a case-by-case basis whether an extension of the PSD permit is justified in situations where one or more pollutants have been redesignated nonattainment following PSD permit issuance and the PSD permit contains other pollutants for which the area remains in attainment. However, for the pollutant(s) for which the area changed to nonattainment, these pollutant(s) should be evaluated by the appropriate permitting authority under the applicable nonattainment NSR permit requirements prior to commencing construction if construction will be delayed beyond the 18-month deadline. We do not believe it is consistent with the purposes of the nonattainment NSR program to use an extension of the deadline for commencing construction in a PSD permit for the pollutants that remain in attainment as a shield against the requirements to obtain a major nonattainment NSR permit, if applicable, for the pollutant(s) for which the area has become nonattainment."

Based on this guidance, DEQ has changed the proposed language on extensions and mirrors the EPA guidance. DEQ also changed the fee requirement to a simple technical permit modification fee for the first extension period since there is no air quality analysis involved.

DEQ agrees with some of the commenters and changed the proposed rule as some of the commenters suggested.

Adding the 18 month construction deadline to permits other than major New Source Review permits is a significant expansion of the program, making Oregon less attractive to businesses. DEQ should retain the current approach where the 18 month clock in OAR 340-224-0030(3) is limited to sources permitted under major New Source Review.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

DEQ agrees with the commenter and changed the proposed rules so that OAR 340-224-0030(3) applies only to Type A State New Source Review and Major New Source Review construction approvals, which are the sources that the rule currently covers.

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

OAR 340-224-0030(4) would require halting construction until a revised permit is issued for any changes to an approved project. Because permit application and air quality analysis are often performed in advance of exact equipment specifications and purchase, and site conditions may force changes to the final design, minor changes to the construction are to be expected. In order for a project to need to halt construction, the effect on the air quality analysis should have to be significant and it should have to be deleterious. DEQ should revise the language to read "A change that would significantly affect the air quality analysis such that impacts are materially increased at more than a de minimis number of receptors."

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

DEQ agrees with the commenter that only changes that would negatively affect the air quality

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analysis are those that should potentially halt construction. The language suggested by the commenter contains terms that are not defined, such as "significantly affect," "materially increased," and "de minimis number." DEQ changed the proposed rule from "A change that would affect the air quality analysis" to "A change that would increase air quality impacts" in response to the comment.

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

DEQ should not adopt any changes to the current definition of major modification. DEQ is proposing to change the definition to require that sources perform a netting basis to potential to emit comparison to determine the emissions increases due to physical changes and changes in method of operation.

This significant change ignores the clear wording of the existing rule that the emissions increases must be "due to" the changes. The emissions increase due to any change that occurs post-baseline is the increase in potential to emit, not the difference between baseline and potential to emit.

The rule requires that a source be able to calculate each "unit's portion of the netting basis," something few sources will be able to do.

The definition specifies that the categorically insignificant emissions must be included in the calculations. However, categorically insignificant activities do not have a netting basis.

DEQ received comments in this category from commenters 2, 3, 4, 7, 12, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

- (B) The accumulation of emission increases due to all physical changes and changes in the method of operation that is equal to or greater than the SER. For purposes of this paragraph, emission increases shall be calculated as follows: For each unit with a physical change or change in the method of operation occurring at the source since the later of the dates in subsections (1)(a) through (1)(c) as applicable for each pollutant, subtract the unit's portion of the netting basis from its post-change potential to emit taking into consideration any federally enforceable limits on potential to emit. Emissions from categorically insignificant activities, aggregate insignificant emissions, and fugitive emissions must be included in the calculations.
- (b) For purposes of this section:
- (A) "The unit's portion of the netting basis" means the portion of the netting basis assigned to or associated with the unit in question, taking into consideration the following, as applicable:
- (i) The unit's portion of the netting basis when the netting basis is established under OAR 340-222-0046(2); and
- (ii) Any adjustments under OAR 340-222-0046(3) that affect the unit's portion of the netting basis.

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DEQ does not agree with the comment. DEQ reviewed the proposed rule language and the existing language in the definition of major modification, and concluded that the proposed rule was generally correct, but that additional clarification would be helpful. DEQ also discussed this rule with EPA Region 10 staff. Region 10 staff informed DEQ that the rule must be clear on how emissions increases are calculated.

DEQ first notes that there are two tests for a major modification. The two tests are:

Test 1: A PSEL or actual emissions that exceed the netting basis by an amount that is equal to or greater than the SER; and

Test 2: The accumulation of emission increases due to all physical changes and changes in the method of operation since the later of the dates in subsections (1)(a) through (1)(c) above (i.e. the baseline period or the most recent NSR permitting action that was capable of revising netting basis), as applicable for each pollutant, is equal to or greater than the SER.

An important distinction between these two tests is that Test 1 allows for emissions netting, while Test 2 only considers "emission increases." For example, if an old unit is replaced with a new unit that has exactly the same emissions, the net change to the PSEL (Test 1) is zero, but for Test 2 the new unit is considered to have an emission increase due to a physical change and the increase is counted, while the emission decrease from the old unit is not counted. In addition, Test 1 (per the rule language) depends on the source's netting basis, while Test 2 does not. However, as a practical matter, Test 2 must often consider the portion of the netting basis attributable to or associated with an emissions unit.

The first thing to consider is how to quantify a unit's post change emissions. DEQ determined this is relatively simple and the post change emissions can be assumed to equal the unit's potential to emit, recalling that potential to emit is either the unit's capacity or can be limited by an enforceable permit condition. The source may choose to permit the unit at its capacity, or may request a limit on the unit's emissions; both of these cases are covered by the term "potential to emit." A source may also choose to have a PSEL that is less than the sum of the capacities of all of its units, without requesting limits on specific units. Since the source can operate its units as it chooses, provided only that the emissions do not exceed the PSEL, the PSEL cannot be assumed to limit any specific unit's potential to emit (unless the source has only one emissions unit). This latter situation is also covered by the term "potential to emit" since the term defaults to capacity in the absence of an enforceable limit on the unit's emissions. Thus, in most if not all cases, a unit's post change emissions will be its potential to emit.

Quantifying a unit's pre-change emissions is also generally straightforward, but involves different scenarios, which are considered below:

### Scenario 1:

A new unit, installed after the baseline period or the most recent NSR permitting action.

For this scenario, the unit would have no netting basis assigned or associated with it, and the unit's portion of the netting basis is zero.

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#### Scenario 2:

A unit that undertakes a physical change or change in the method of operation, and was included in a prior NSR permitting action.

In this scenario, the unit's portion of the netting basis would be the unit's emission rate approved in the prior NSR permitting action.

### Scenario 3:

A unit that undertakes a physical change or change in the method of operation and existed during the baseline period, and was not included in a prior NSR permitting action.

In this scenario, the unit's portion of the netting basis equals its baseline emission rate.

DEQ recognizes that the baseline period for most pollutants is now 36 or more years in the past, but most if not all permit review reports for sources with baseline emissions include an inventory of the units included in the baseline period. Determining a unit's capacity during the baseline period may be more difficult, but this approach is a consequence of Oregon's fixed baseline period and sources are advised to keep records that will provide the necessary information if and when it becomes necessary.

While DEQ believes that scenarios 1-3 are reasonably straightforward, the following language has been added to help clarify how a unit's portion of the netting basis should be determined:

"For purposes of this section:

- (A) "The unit's portion of the netting basis" means the portion of the netting basis assigned to or associated with the unit in question, taking into consideration the following, as applicable:
- (i) The unit's portion of the netting basis when the netting basis is established under OAR 340-222-0046(2); and
- (ii) Any adjustments under OAR 340-222-0046(3) that affect the unit's portion of the netting basis."

#### Scenario 4:

The last scenario considered is one where a unit existed during the baseline period, made increased use of existing capacity, and then later is involved in an NSR permitting action. DEQ notes that this scenario is addressed by both the existing and proposed rules as follows:

"Emission increases due solely to increased use of equipment or facilities that existed or were permitted or approved to construct in accordance with OAR 340 division 210 during the applicable baseline period are not included, except if the increased use is to support a physical change or change in the method of operation."

DEQ believes this existing language is sufficient and does not propose to change it.

DEQ disagrees with the comment but has added language to help clarify the rule.

6.11 The proposed modeling requirements for State New Source Review sources are too costly and complex for sources not triggering the federal program where modeling and extensive analysis

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of impacts is warranted. The revisions proposed to create a complex and expensive minor New Source Review program in Oregon.

DEQ received comments in this category from commenter 47 listed in the *Commenter section* below.

### Response:

In many cases the modeling requirements for State New Source Review are a carryover from the 2001 though early 2015 rules. For example, under the 2001/2015 version of OAR 340-222-0041(3), a source located in an attainment area with an emission increase of the SER or more over the netting basis was subject to the following:

(C) If located within an attainment, maintenance, or unclassifiable area, the applicant must demonstrate compliance with the National Ambient Air Quality Standards and Prevention of Significant Deterioration increments by conducting an air quality analysis in accordance with OAR 340-225-0050(1) and (2) and 340-225-0060.

DEQ acknowledges, however, that the requirements for sources to examine their impacts on other designated areas have been expanded. These requirements are not entirely new and in some cases are carry-overs from the 2001/2015 rules. In this rulemaking, DEQ considered the existing 2001/2015 requirements for sources impacting other areas in light of the Supreme Court ruling discussed in the response to comment 1.4 that the Significant Impact Level is not sufficient to guarantee no new National Ambient Air Quality Standards violation will occur. DEQ determined that all sources subject to Major or State New Source Review should ensure that their emissions do not cause an exceedance of a National Ambient Air Quality Standards or Prevention of Significant Deterioration increments in attainment areas.

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

The Maintenance New Source Review provisions contain several alternatives to providing offsets and having to demonstrate a net air quality benefit, including an exemption for a source proposing a modification in a CO maintenance area or PM10 maintenance area. DEQ has proposed to remove those provisions from OAR 340-224-0060, move the modeling thresholds to OAR 340-202-0225 and to re-characterize them as "limits" for maintenance areas. Modeling thresholds are not values that a source demonstrates ongoing compliance with--doing so would be impossible, as one cannot measure the source's concentrations in the environment in isolation. Requiring that the source "comply with the limits in OAR 340-202-0225" strongly suggests that there is an ongoing periodic monitoring component. The commenter fails to see the benefit in moving these thresholds to division 202 and strongly objects to characterizing them as limits.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

#### Response:

DEQ agrees that the word "limits" should not be used in reference to the impact levels specified in OAR 340-202-0225, and has replaced the word "limits" with "impact levels" in all places that reference these values. These impact levels were moved from OAR 340-224-0060 to OAR 340 division 202 because division 202 is already the location for other values

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	that are relevant to New Source Review, such as Prevention of Significant Deterioration increments, and all such values should be found in one place.
	DEQ agrees with the commenter and changed the proposed rules in response to this comment.
6.13	The pre-construction monitoring requirements contain an internal inconsistency. OAR 340-224-0070(1)(a)(A) requires that a source submit ambient monitoring data for each regulated pollutant subject to this rule. However, OAR 340-224-0070(1)(a)(A)(i) says that the analysis must contain continuous monitoring data "for any regulated pollutant that may be emitted by the source." Applying this literally, a source could trigger Prevention of Significant Deterioration for PM10 and be required to perform ambient monitoring for greenhouse gases or nitrogen oxides. The intent of the rule is to say that a source can be required to conduct ambient monitoring for any regulated air pollutant subject to the rule and OAR 340-224-0070(1)(a)(A)(i) should be revised accordingly.
	DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the <i>Commenter section</i> below.
	Response:
	DEQ agrees with the commenter and changed the proposed rules in response to this comment.
6.14	DEQ has streamlined the applicability language for New Source Review and Best Available Control Technology with the intent of clarifying that the same applicability test applies for both federal major New Source Review and Best Available Control Technology. One Best Available Control Technology-related provision has been identified, however, where different language is used to describe applicability, which could lead to confusion. In OAR 340-224-0070(2)(a), the applicability test for when Best Available Control Technology applies is appropriately tied to the test in OAR 340-224-0025(2)(a)(B). The exemption to applying Best Available Control Technology in OAR 340-224-0070(2)(d), however, uses the term "potential to emit" and in subparagraph (2)(d)(B) it is unclear what should be compared to 10% of the Significant Emission Rate. To avoid confusion, the exemption in OAR 340-224-0070(2)(d) should also refer to the applicability test referenced in OAR 340-224-0025(2)(a)(B).
	DEQ received comments in this category from commenter 52 listed in the <i>Commenter section</i> below.
	Response:
	DEQ proposes revision to OAR 340-224-0070(2)(d) as follows:  (d) Modifications to individual emissions units that have an emission increase, calculated per OAR 340-224-0025(2)(a)(B), that is less than 10 percent of the SER are exempt from
	this section unless:
	DEQ agrees with the commenter and changed the proposed rules in response to this comment.
6.15	The new language in revisions to OAR 340-224-0070(3)(a)(B), 340-224-0245(3), 340-224-0250(2)(a), 340-224-0260(2)(c), 340-224-0270(1)(c) states "if the source has emissions that are equal to or greater than" This language is not clear as to what is meant by the term "emissions." DEQ intends this reference to "emissions" to mean "potential to emit" and the term "potential to emit" should therefore be used in place of the more general term

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"emissions."

DEQ received comments in this category from commenter 52 listed in the *Commenter section* below.

### Response:

DEQ proposes changing the referenced language as follows:

The owner or operator of a federal major source must comply with OAR 340-225-0050(4) and 340-225-0070.

The term federal major source has been in use since 2001 and is defined as:

- (a) A source with potential to emit:
- (A) 100 tons per year or more of any individual regulated pollutant, excluding greenhouse gases and hazardous air pollutants listed in OAR 340 division 244 if in a source category listed in subsection (c), or
- (B) 250 tons per year or more of any individual regulated pollutant, excluding greenhouse gases and hazardous air pollutants listed in OAR 340 division 244, if not in a source category listed in subsection (c).

DEQ's original rule proposal included redefining the term "federal major source" and the rules that the comments address were written with the redefined term in mind. However, DEQ has reconsidered and believes that changing the definition of "federal major source" will cause unnecessary confusion. DEQ has therefore reverted to the previous definition.

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

It is unclear whether a source subject to Major New Source Review in a reattainment area would need to meet both nonattainment and reattainment requirements for a pollutant designated as reattainment. The regulations could potentially be read as only requiring a federal major new source of a reattainment pollutant to meet the requirements of the reattainment section, a clear violation of the Clean Air Act because the requirements of that division bear no semblance to the requirements of Nonattainment New Source Review in the Clean Air Act.

DEQ received comments in this category from commenter 40 listed in the *Commenter section* below.

#### Response:

DEQ determined the rules pertaining to Major New Source Review in a reattainment area are clear. The Major New Source Review reattainment area rule states that source subject to Major New Source Review in a reattainment area must meet the requirements for a nonattainment area, treating the reattainment pollutant as a nonattainment pollutant.

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

6.17 The proposed revisions to the rules appear to be missing language related to the use of priority offsets. Klamath Falls priority offsets should be identified in OAR 340-204-0320. OAR 340-224-0510(4) requires that emission reductions used as offsets be equivalent to the emissions

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being offset in terms of short term, seasonal, and yearly time periods to mitigate the effects of the proposed emissions. Because woodstoves are only operated seasonally, offsets generated from their retirement arguably would not meet this requirement for an industrial source operating year round. DEQ should revise the rules to clarify that this is not an impediment to the use of wood stove derived offsets.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

### Response:

DEQ agrees in part with the commenters. With respect to the requirement that offsets must be equivalent to the emissions being offset in terms of short term, seasonal, and yearly time periods, DEQ believes that woodstove replacements would meet this requirement under the "short term" time periods provision, but has revised OAR 340-224-0510(5) to give additional clarification as follows:

- (5) Emission reductions used as offsets must meet at least one of the following criteria:
- (a) They must be equivalent to the emissions being offset in terms of short term, seasonal, and yearly time periods to mitigate the effects of the proposed emissions; or
- (b) They must address the air quality problem in the area, such as but not limited to woodstove replacements to address winter-time exceedances of short term PM2.5 standards.

DEQ has also revised OAR 340-240-0560 so that rule will also apply to any area when the area rules refer to it.

DEQ acknowledges that this rule is not well-located and many readers may not think to look for it in OAR 340 division 240. DEQ has attempted to address this problem by ensuring that all rules that rely on this rule include a clear references to it. This rule may be relocated in a future rulemaking, but DEQ is unable to do that at this time.

Commenters suggested that DEQ identify priority sources for the Klamath Falls nonattainment area. With respect to this comment, DEQ did not consider "looking back" to determine if priority sources should be identified for existing designated areas. Identifying priority sources for areas other than Lakeview would require a more in-depth review than time allows in this rulemaking and therefore DEQ will not identify priority sources for other areas in this rulemaking. However, DEQ notes that the original rule proposal included OAR 340-204-0320(2), which allows DEQ to identify priority sources during a specific permit action based on the sources addressed in the emission reduction strategies that were included in the attainment or maintenance plans for the area. This provision can be used in any area, provided that the applicable plan reasonably makes the case to identify priority sources.

DEQ does not expect that priority sources will be defined for all areas designated as sustainment, nonattainment, reattainment or maintenance areas. DEQ expects that this will only be done in cases where there is clear evidence that a certain type of source is a major contributor to the air quality problem in the area.

With respect to the Lakeview sustainment area, DEQ determined it has correctly identified <u>uncertified residential wood fuel-fired devices</u> as the priority source. However, DEQ failed to

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identify the annual emission reduction offset values for residential wood-fired devices in Lakeview.

DEQ notes that annual emission reduction offset values for residential wood-fired devices have been identified for Klamath Falls in OAR 340-240-0560. DEQ compared the winter monthly average low temperatures in Klamath Falls and Lakeview, and notes that the average monthly low temperatures in Lakeview are generally somewhat lower than the monthly average low temperatures in Klamath Falls. This suggests that households in Lakeview that heat with wood fuel are likely to use somewhat more fuel, or at least not less fuel, than similar households in Klamath Falls. DEQ therefore concludes that the annual emission reduction offset values for residential wood-fired devices in Klamath Falls can reasonably and conservatively be applied in Lakeview as well.

Comparison of monthly average low temperatures (degrees F) in Klamath Falls and Lakeview (source: Wikipedia)

	Oct	Nov	Dec	Jan	Feb	Mar
Klamath Falls	35.4	28.2	22.7	20.6	24.5	28.1
Lakeview	33.1	26.0	20.6	20.6	24.0	27.8

DEQ has therefore revised OAR 340-240-0560 to allow the use of the Klamath Falls annual emission reduction offset values for residential wood-fired devices in other areas when referred to this rule, and OAR 340-268-0030(f) to specify that a source must use the procedures in OAR 340-240-0560 to calculate the emission reductions from residential wood fuel-fired devices in Klamath Falls or Lakeview.

DEQ has revised OAR 340-224-0510(4) to state that offsets must be equivalent to the emissions being offset in terms of short term, seasonal, and yearly time periods to mitigate the effects of the proposed emissions, or must be from the designated area-specific priority sources identified in OAR 340-204-0320; or they must be allowed under OAR 340 division 240.

DEQ agrees with the commenter and changed the proposed rules in response to this comment.

Greenhouse gas Plant Site Emission Limits serve no purpose for non-Federal Major Sources. As stated in OAR 340-222-0020(1), the purpose of Plant Site Emission Limits is to manage airshed capacity, not relevant to greenhouse gases. There was a benefit to having greenhouse gas Plant Site Emission Limits when greenhouse gases alone could subject a source to Prevention of Significant Deterioration. However, in the absence of this possibility, it makes far more sense to treat greenhouse gas Plant Site Emission Limits the same way that DEQ treats hazardous air pollutant Plant Site Emission Limits. This amendment should be added to the temporary rule and incorporated into the final rules.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

Response:

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Since greenhouse gases can trigger Prevention of Significant Deterioration permitting requirements for "anyway" sources that trigger for other pollutants, GHG Plant Site Emission Limits are an important part of DEQ's permitting program. Establishing accurate GHG baseline emission rates now with fairly recent data is critical for tracking Prevention of Significant Deterioration applicability. Hazardous air pollutants are not subject to the New Source Review/Prevention of Significant Deterioration program so HAP Plant Site Emission Limits are not a comparable yardstick.

For smaller sources, including non-federal major sources, DEQ established generic Plant Site Emission Limits, which are set below the significant emission rate. If a source's potential to emit is less than the SER, the generic Plant Site Emission Limits give the source more flexibility and also decrease DEQ's workload. Sources that elect generic Plant Site Emission Limits also give up the ability to have a baseline emission rate, potentially causing the source to trigger Prevention of Significant Deterioration earlier than if it had a baseline.

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

The commenter strongly objects to DEQ proposal to permanently make biogenic CO2 a regulated air pollutant after July 20, 2014. The current definition of "greenhouse gas" states that biogenic CO2 is not a GHG except to the extent required by federal law. Removing this language, therefore making biogenic CO2 permanently a GHG in Oregon could substantially impact many sources that rely on biomass for a significant percentage of their fuel. DEQ should do everything possible to encourage biomass combustion in order to address climate change concerns.

DEQ received comments in this category from commenters 2, 3, 4, 7, 12, 20, 41, 42, 44, 47, 48 and 58 listed in the *Commenter section* below.

### Response:

DEQ has considered the biogenic CO2 deferral question and as a matter of policy DEQ recommends that biogenic CO2 not be considered a GHG for permitting purposes. DEQ therefore proposes to retain the existing language in the definition of greenhouse gases. However, it must be recognized that at this time that federal law does not provide for a GHG deferral, and DEQ must therefore include biogenic CO2 as a GHG.

DEQ agrees with the comment and has retained the current rule language.

6.20 The commenter agrees that it is important to clarify that biogenic CO<sub>2</sub> was exempt from May 1, 2011 through July 20, 2014.

DEQ received comments in this category from commenter 7 listed in the *Commenter section* below.

#### Response:

DEQ now understands that the actual status of EPA's biogenic GHG deferral rule is somewhat uncertain: while the Court of Appeals vacated the deferral rule, it has not yet issued the mandate that would make the vacatur effective. Because the actual status of EPA's deferral is uncertain, DEQ finds that it is not appropriate to make a statement that the deferral did exist for a period of time. However, DEQ also notes our response to comment 6.19, in which

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DEQ proposes to retain the existing rule language regarding the deferral. Retaining the existing rule language will ensure that permitting in Oregon remains in compliance with federal law.

DEQ agrees with the comment, but has revised the rule as described in the response to comment 6.19.

Category 7: Modernize methods allowed for holding public hearings and meetings

7.1 DEQ should not completely delete its procedures for informational and public hearings contained in OAR 340-209-0070. The proposed regulations provide no guidance on how informational meetings or public hearings would be conducted.

The 14 days notice before an informational hearing is not found elsewhere in DEQ's regulations. DEQ should modify OAR 340-209-0030(3)(d)(B) to include a timing requirement for notice, the minimum information to be contained in a notice and who is notified. DEQ proposed regulations should continue to have physical meetings for public hearings.

DEQ should not allow modern technology to replace its public involvement process. Replacing hard copy and newspaper notification or physical public meetings poses a serious environmental justice concern. Many environmental justice communities that are most effected by air pollution are also least likely to have reliable access to the Internet. If DEQ shifts too much to the use of modern technology, it risks leaving many effected people unable to adequately participate.

DEQ received comments in this category from commenter 40 listed in the *Commenter section* below.

### Response:

*The following is DEQ's mission statement:* 

DEQ's mission is to be a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.

DEQ works collaboratively with Oregonians for a healthy, sustainable environment.

DEQ cannot work collaboratively with Oregonians without the public involvement process. Even though DEQ uses GovDelivery as an email service to notify the majority of interested parties, DEQ continues to mail postcards to those permitted facilities for which we have no email address. DEQ understands the communications limitations applicable within environmental justice communities and will continue to use non-electronic means to engage such communities. DEQ hopes to reach the point where people can call in from anywhere in the state to attend an informational meeting or public hearing, making participation for anyone much easier.

DEQ agrees with commenter and changed the proposed rules in response to this comment.

Category 8: Re-establish the Heat Smart woodstove replacement program exemption for small commercial solid fuel boilers regulated under the permitting program

DEQ did not receive any comments on this part of the proposed rulemaking.

Category 9: Remove annual reporting requirements for small gasoline dispensing facilities

9.1 DEQ put many sources into retroactive non-compliance when it: 1) eliminated the exemptions contained in state rules prior to 2008; and 2) went beyond the federal NESHAP.

DEQ received comments in this category from commenter 38 listed in the *Commenter section* below.

### Response:

DEQ appreciates your concern that DEQ may have placed gasoline dispensing facilities into retroactive non-compliance.

<u>Exemption elimination</u>: DEQ carried over the vapor balance exemptions for the following storage tanks when it eliminated OAR 340-232-0070 and 340-242-0520(1) and pulled their requirements into OAR 340 Division 244 [see OAR 340-244-0234(4)(a)(C) and (b)]:

Storage tanks with a rated capacity of less than 1,500 gallons located at gasoline dispensing facilities in the Portland AQMA, Medford AQMA, or Salem SKATS; and

Storage tanks at gasoline dispensing facilities with annual throughput of less than 120,000 gallons and located in Clackamas, Multnomah, or Washington County.

Tanks that did not qualify for these exemptions were required to have met the submerged fill requirement prior to the Jan. 10, 2008 compliance date in OAR 340-244-0238(1), so setting a compliance date of Jan. 10, 2008 did not put these tanks into retroactive non-compliance.

DEQ did not carry over the submerged fill exemption for existing storage tanks with a rated capacity of 1,500 gallons or less when it eliminated OAR 340-232-0070. However, DEQ applied the NESHAP compliance date of Jan. 10, 2011 to these tanks, meaning gasoline dispensing facilities had between Dec. 13, 2008 and Jan. 10, 2011 to install submerged fill tubes and they were not placed in retroactive non-compliance. There was no exemption from the submerged fill requirement in OAR 340-232-0070 for new gasoline storage tanks. Therefore, these tanks were required to have met the submerged fill requirement prior to the Jan. 10, 2008 compliance date in OAR 340-244-0238(1), so setting a compliance date of Jan. 10, 2008 did not put these tanks into retroactive non-compliance.

Going beyond the NESHAP: When DEQ went beyond the NESHAP, by establishing a vapor balance system threshold of 40,000 gallons per month, it gave new tanks from Dec. 13, 2008 to Dec. 13, 2009 (or upon installation, whichever is later) and existing tanks between Dec. 13, 2008 and Jan. 10, 2011 to comply with the vapor balance requirement, so these tanks were not put into retroactive non-compliance. When DEQ also went beyond the NESHAP, by eliminating the submerged fill threshold of 10,000 gallons per month, it gave existing tanks from Dec. 13, 2008 to Jan. 10, 2011 to comply with the submerged fill requirement, so these tanks were not put into retroactive non-compliance. However, DEQ may have inadvertently placed tanks with less than 10,000 gallons per month and installed between Jan. 10, 2008 and Dec. 13, 2008 into retroactive non-compliance by establishing a compliance date for these tanks of Jan. 10, 2008. To remedy this situation, DEQ proposes that the EQC adopt a compliance date of Dec. 13, 2009 for these tanks.

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

9.2 During the NESHAP rulemaking process, DEQ conducted outreach to petroleum industry

Category 9: Remove annual reporting requirements for small gasoline dispensing facilities

sources. However, the effects of these rules on industrial sources has not been made clear and many sources not subject to the federal NESHAP, particularly those in the Air Quality Maintenance Areas where the state rule applies some level of control to all tanks over 250 gallon capacity regardless of throughput, are likely not aware of the rule's applicability.

DEQ received comments in this category from commenter 38 listed in the *Commenter section* below.

### Response:

DEQ used databases from the State Fire Marshal and Department of Agriculture that contain information on all gasoline storage tanks in the state and performed extensive outreach to all GDFs during and after the rulemakings, to the point where it is confident that most gasoline dispensing facilities in the state are aware of the rules and complying with them. In addition, many industrial sources in Oregon have DEQ air permits and likely either had the gasoline dispensing facility requirements rolled into their permit or were informed of the requirements through their permit writer or inspector.

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

9.3 Traditionally, DEQ has worked with sources to support compliance. At a minimum, DEQ needs to address any retroactive compliance issues they have created, provide an effective notice to sources that clearly identifies facilities likely to be affected by rule changes, and provide a reasonable compliance schedule for sources not covered by the federal NESHAP.

DEQ received comments in this category from commenter 38 listed in the *Commenter section* below.

#### Response:

DEQ agrees that its gasoline dispensing facility rules affect many small businesses and took actions to reduce the fiscal impacts on small businesses. DEQ also performed extensive outreach to all gasoline dispensing facilities during and after the rulemakings, to the point where it is confident that most facilities in the state are aware of the rules and complying with them.

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

Is it reasonable to require older, limited use (low throughput) tanks to install these controls? It seems like a lot of money for very little benefit.

DEQ received comments in this category from commenter 38 listed in the *Commenter section* below.

#### Response:

DEQ agrees with the commenter. However, the rules already exempt older limited use tanks from installing emission controls. In the original 2008 rulemaking, DEQ proposed rules that would have required vapor balance systems at low-volume facilities (dispensing 10,000 gallons or more per month). After convening a fiscal advisory committee and accepting public comment similar to the commenter's, DEQ recommended and the EQC adopted rules that require emission controls at moderate and large-volume facilities that dispense on average

	Summary of Comments and DEQ Responses
	Category 9: Remove annual reporting requirements for small gasoline dispensing facilities
	40,000 gallons or more per month.
	DEQ did not change the proposed rules in response to this comment.
9.5	The costs of these changes were not properly analyzed during the rule development.
	DEQ received comments in this category from commenter 38 listed in the <i>Commenter section</i> below.
	Response:
	DEQ disagrees with the commenter. In 2008, during the development of the original rules, and based on input from a tank vendor, DEQ estimated the cost to retrofit an existing tank with a vapor balance system at between \$450 and \$1,150 and the cost to include a vapor balance system on a new tank to be approximately \$350. DEQ estimated that going beyond the federal Gasoline Dispensing NESHAP by setting the volume trigger for a vapor balance system would cost over \$1,000,000 per year statewide and result in an annual expense to facility owners of between \$0.002 and \$0.006 per gallon, with the biggest impact on owners of smaller facilities. Also in 2008, DEQ held a fiscal advisory committee for this rulemaking and some members of the committee determined that the draft rules would impose a significant adverse impact on small businesses. Based on committee members suggestions on how DEQ could reduce the fiscal impact on small businesses, DEQ raised the volume trigger for stage I vapor controls from 10,000 gallons per month to 20,000 gallons per month. During the 2008 public comment period, one commenter claimed the cost to retrofit an existing tank with a vapor balance system was closer to \$2,000 and another commenter claimed that a 20,000 gallon per month volume trigger would cause serious harm to smaller station owners. Based on these comments, DEQ recommended, and in Dec. of 2008, the EQC adopted a 40,000 gallon per month volume trigger.
	DEQ did not change the currently proposed rules in response to this comment.
9.6	The revision to the Gasoline Dispensing Facility (GDF) NESHAP to reduce the reporting burden for sources with low throughputs is a good idea. However, why does DEQ retain the state-only provisions of this rule at all? The state-only provisions are burdensome to industry and have provided little benefit to the environment. DEQ should remove the state-only provisions of this rule and not just limit the changes to decreasing the annual reporting obligations for facilities with a monthly throughput of 10,000 gallons of gasoline or more.
	DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 38, 41, 42, 44, 47, 48 and 58 listed in the <i>Commenter section</i> below.
	Response:
	DEQ agrees that it is more efficient for DEQ to accept delegation of the federal NESHAPs without modification. EQC adopts the overwhelming majority of federal NESHAPs by reference. The GDF NESHAP is the only NESHAP that EQC did not adopt by reference. DEQ's justification for adopting a rule that implements and goes beyond the federal GDF NESHAP was to protect public health and worker health, help prevent future violations of ambient air quality standards, and take advantage of existing emission control equipment. The following is from DEQ's staff report to the EQC in Dec. of 2008:

Category 9: Remove annual reporting requirements for small gasoline dispensing facilities

Benzene, which naturally occurs in crude oil and is increased through refining to boost gasoline's octane rating, is a known carcinogen. Because benzene concentrations in many Oregon communities are many times above levels protective of human health, reducing benzene is a priority for DEQ. While several federal regulations and state initiatives promise to reduce benzene in our air over the next twenty years, DEQ is pursuing faster reductions.

The Gasoline Dispensing NESHAP only required emission controls at the largest facilities. To further reduce benzene exposures in Oregon, the EQC went beyond the Gasoline Dispensing NESHAP by requiring emission controls at moderate and high volume facilities.

Stage I vapor controls are currently required in Portland, Medford and Salem to control ozone. Outside of these areas stage I vapor controls are employed by some but not all gasoline dispensing facilities. Controlling gasoline vapors reduces benzene exposures at and near gasoline dispensing facilities, contributes to continuing compliance with stricter ozone standards, and also conserves gasoline.

The federal NESHAP will reduce benzene emissions caused by the filling of gasoline storage and dispensing tanks in Oregon by an estimated 12 tons per year (32%) and volatile organic compounds emissions by an estimated 680 tons per year (32%), as well as save an estimated 221,000 gallons of gasoline per year (0.016%) statewide. By going beyond the NESHAP, this rulemaking would additionally reduce stage I benzene emissions in Oregon by an estimated 16 tons per year (44%) and volatile organic compounds emissions by an estimated 930 tons per year (44%), and save an estimated 303,000 gallons of gasoline per year (0.021%) statewide. Combined, the federal NESHAP and the proposed statewide stage I vapor control requirement would reduce stage I benzene emissions in Oregon by an estimated 28 tons per year (76%) and volatile organic compounds emissions by an estimated 1,610 tons per year (76%), and save an estimated 524,000 gallons of gasoline per year (0.037%) statewide.

In a separate rulemaking, DEQ is proposing that the EQC adopt the reciprocating internal combustion engine NESHAP by reference, for sources required to have a Title V or Air Contaminant Discharge Permit.

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

9.7 Small gasoline dispensing facilities are exempt from DEQ air quality permitting and reporting and the same should be true for small cardlock gasoline dispensing facilities. This type of business is so similar why should they be held to different permitting and reporting requirements?

DEQ received comments in this category from commenter 35 listed in the *Commenter section* below.

### Response:

DEQ agrees that small gasoline dispensing facilities and small cardlocks should be held to the same permitting and reporting requirements. Oregon's GDF rules currently do not differentiate between small GDFs and small cardlocks and the proposed rules do not change that. Soon after the EQC extended the 10,000 gallon per month permit exemption to retail GDFs and GDFs with underground storage tanks in 2009, many small cardlocks were able to cancel their permits.

	Summary of Comments and DEQ Responses  Category 9: Remove annual reporting requirements for small gasoline dispensing facilities		
	DEQ did not change the proposed rules in response to this comment.		
9.8	Given that DEQ is proposing to remove annual reporting requirements for small gasoline dispensing facilities, the commenter also recommends that DEQ consider proposing the removal of Stage II vapor recovery requirements. EPA determined in 2012 that redundant technology was in widespread use and issued guidance to states for removing Stage II requirements. Many states have already either removed their Stage II requirements or are allowing existing Stage II systems to be removed in the near future, while other states, anticipating removal, are not enforcing Stage II requirements for new and/or modified gasoline dispensing facilities.		
	DEQ received comments in this category from commenter 57 listed in the <i>Commenter section</i> below.		
	Response:		
	Stage-2 vapor recovery is still an important ozone and air toxics reduction strategy for the Portland area. EPA determined that nationally, "on-board" vapor recovery systems (i.e., systems embedded in the vehicle) are in widespread use within the motor vehicle fleet, and therefore Stage-2 vapor recovery systems "at the pump" are no longer needed to control smog forming air pollution. EPA provided guidance to states allowing for the repeal of Stage-2 if it is in widespread use in the state, and if it is no longer needed to meet ozone standards. In Oregon, however, the motor vehicle fleet is older than the national average fleet used by EPA to evaluate Stage-2 (i.e., cars last longer on the west coast than they do in most of the county). Oregon's fleet has not yet reached the point of "widespread use" for on-board vapor recovery systems, and vapor recovery "at the pump" is still needed. DEQ expects Oregon's fleet to reach the tipping point for "widespread use" in the 2015-2017 timeframe. Stage-2 vapor recovery is also an important benzene reduction strategy, which is a potent toxic air pollutant. In 2015 EPA will adopt a new, likely more protective national ambient air quality standard for ozone (smog), and DEQ will at that time evaluate Oregon's status under this new standard. DEQ intends to evaluate the need for Stage-2 vapor recovery and other pollution reduction strategies in light of the new ozone standard, when it updates the Portland ozone plan in the 2016-2017 timeframe.		

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

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DEQ has not given the public enough time and opportunity to intelligently comment on over 1,000 pages of material, even with the time extensions. The PowerPoint presentations were inadequate given the width and breadth of the proposals, and the summaries prepared by DEQ did not cover all the changes.

In addition, the entire rulemaking notice was slated as a housekeeping process and minor changes for areas of the state with particulate issues caused by wood stoves. However, there are in fact significant and material revisions to public notice and permitting requirements. Had this been clear at the outset, more stakeholders would have been involved and the process would have been more transparent. Very little in these proposals is necessary, and a delay to make sure DEQ gets it right is appropriate.

DEQ received comments in this category from commenters 2, 3, 4, 7, 20, 38, 40, 41, 42, 44, 47, 48, and 58 listed in the *Commenter section* below.

#### Response:

DEQ held stakeholder meetings around the state (Portland, Pendleton, Eugene and Medford) in August of 2013. At these meetings, DEQ presented conceptual ideas for the proposed rulemaking, inviting the public to discuss the concepts.

In January 2014, DEQ provided the fiscal advisory committee and interested parties including Neighbors for Clean Air a preliminary version of the proposed rules. Beginning in June 2014, DEQ provided the public thirteen weeks to provide comments on the proposed rules, which included three requested extensions. Because many of DEQ's proposed changes are clarifications and simplifications, such as changing "the Department" to "DEQ" and "shall" to "must" and DEQ explained all of the changes in its Crosswalk of Proposed Revisions DEQ determined it provided adequate time and opportunity for interested parties to comment.

DEQ does not know of any instances nor did the commenter provide specific instances where the work has been incomplete or insufficiently explained. DEQ delayed proposed adoption of the rulemaking package from January 2015 to March 2015 in order to sufficiently address public comments and make changes to the rules as a result of public comment.

Neither the Notice of Proposed Rulemaking or public notices sent to interested parties and affected facilities stated the rulemaking was strictly a housekeeping process. DEQ included the following language in its public notice:

"DEQ proposes rules to streamline, reorganize and update Oregon's air quality permit programs. The changes would allow DEQ to improve air quality with more efficient and effective permitting programs. The proposed rules include changes to the Source Sampling Manual Volumes I and II and the Continuous Monitoring Manual.

DEQ also proposes changes to statewide particulate matter emission standards and the preconstruction permitting program. The changes would help Oregon comply with the U.S. Environmental Protection Agency's ambient air quality standard for fine particulates, commonly called  $PM_{2.5}$  and ensure Oregon's permitting programs protect air quality.

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In addition, DEQ proposes rules to expand preconstruction permitting flexibility for smaller facilities, allow DEQ to use technology such as teleconferencing for public meetings to improve community outreach, and make minor changes to the woodstove replacement program called Heat Smart and the gasoline dispensing facility rules to improve program implementation.

This document organizes and describes the proposed rules under the following nine categories:

- 1. Clarify and update air quality rules
- 2. Update particulate matter emission standards
- 3. Change permitting requirements for emergency generators and small natural gas or oil-fired equipment
- 4. Establish two new state air quality area designations ("sustainment" and "reattainment") to help areas avoid and more quickly end a federal nonattainment designation
- 5. Identify Lakeview as a state sustainment area while retaining its federal attainment designation
- 6. Change the preconstruction permitting program (New Source Review)
- 7. Provide more flexibility for public hearings and meetings
- 8. Re-establish woodstove replacement program (Heat Smart) exemption for small commercial solid fuel boilers that the permitting program regulates
- 9. Remove annual reporting requirements for small gasoline dispensing facilities"

Clarifying and updating air quality rules was only one aspect of the rulemaking package. DEQ explained every proposed change in the "Crosswalk of Proposed Revisions" document.

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

DEQ's Public Notice Packet stated that the Statement of fiscal and economic impacts was available online, but the URL provided only directed to a 13-page summary of a two-and-a-half hour meeting of the Fiscal Impact Advisory Committee. This meeting/summary was inadequate given the extent and complexity of the proposed rule language—especially the deletion of the Plant Site Emission Limit rule at OAR 340-222-0041, the language that Plant Site Emission Limit compliance will not always be determined by the methodology stated in the permit, the reworking of New Source Review, and the treatment of the Columbia River Gorge National Scenic Area as a federal Class I area, which have wide-ranging, complex economic impacts that were not adequately addressed.

DEQ received comments in this category from commenters 46 and 57 listed in the *Commenter section* below.

### Response:

The Notice of Proposed Rulemaking contains the Statement of fiscal and economic impact. This statement includes impacts on state agencies, local government, the public, and businesses.

The proposed rule amends and does not delete OAR 340-222-0041. OAR 340-222-

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0041(4) concerns the requirements for obtaining offsets and demonstrating net air quality benefit applicable when a source not subject to Major New Source Review requests to increase a Plant Site Emission Limit to a level that exceeds the source's netting basis, the same requirements remain applicable as part of the Prevention of Significant Deterioration and State New Source Review programs under division 224. DEQ has clarified OAR 340-222-0041(4) in addition to directing sources that trigger New Source Review to division 224. Moving the requirements from OAR 340-222-0041(4) to division 224 does not have a fiscal and economic impact as the required analyses remain the same.

Clarifying how actual emissions are calculated does not have a fiscal and economic impact since the method remains the same.

The Statement of fiscal and economic impact in the Notice of Proposed Rulemaking contains the estimated cost of compliance for the changes to the New Source Review program. The proposed changes to require visibility analysis and deposition modeling in the Columbia River Gorge National Scenic Area do not have a fiscal and economic impact since sources that currently trigger this requirement do the analyses voluntarily. The requirement for the analysis does not add any additional cost to sources that trigger this requirement in the future since they would have done it voluntarily otherwise. This requirement does not equate to treating the Gorge as a Class I area.

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

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DEQ should revise its rules to abandon the Plant Site Emission Limit Program to implement the Prevention of Significant Deterioration program because it does not meet the minimum requirements of the Clean Air Act. The following is a list of problems with Oregon's Prevention of Significant Deterioration program:

It focuses on the Plant Site Emission Limit, which is a permit limit, not a calculation of actual emissions or potential to emit of a new unit, to determine whether a "major modification" has occurred. The focus of the determination must be on whether actual emissions increase, not whether the permit limit changes.

Oregon's program requires a "major modification" to result in increase in permitted emissions on a plant-wide basis, instead of focusing on the pollution increase from the new emissions unit. In this way, Oregon's program features "automatic netting" if the source had a Plant Site Emission Limit in excess of emissions so no Prevention of Significant Deterioration permit is required.

Oregon's Plant Site Emission Limit approach is that the Plant Site Emission Limit is not based on projected or actual emissions during a time-frame that is contemporaneous with the physical or operational change in question, but during the baseline period. The baseline emission rate is then adjusted as rules change and future permitting decisions are made and is referred to as the netting basis. The resultant netting basis does not reflect actual emissions at any time that is reasonably contemporaneous with the physical or operational change in question. In fact, the "netting basis" reflects a thirty-year "look back" period, in clear contravention of the federal regulatory floor. Even EPA has acknowledged that Oregon's Prevention of Significant Deterioration program does not subject the same sources to Prevention of Significant Deterioration that the federal program does and that some sources that would trigger the federal program do not trigger Oregon's Prevention of Significant Deterioration program.

Given that the Plant Site Emission Limit program is inconsistent with the federal program because of its focus on permitted instead of actual or potential emissions, and its 30-year "look back" period, DEQ should discontinue use of this program.

DEQ received comments in this category from commenter 40 listed in the *Commenter section* below.

#### Response:

The Oregon Plant Site Emission Limit program is unique in the country and provided a benchmark for the Federal regulations. Oregon uses a fixed baseline year of 1977 or 1978 (or a prior year if more representative of normal operation) and then includes all emissions increases and decreases since baseline when setting the allowable emissions in the Plant Site Emission Limit. Increases and decreases since the baseline year do not affect the baseline but are included in the difference between baseline and allowable emissions. If the Plant Site Emission Limit is to be set at a level greater than a Significant Emission Rate over the baseline actual emission rate, an evaluation of the air quality impact and New Source Review applicability are required. If the Plant Site Emission Limit is not greater than the SER over the baseline actual emission rate, the Plant Site Emission Limit is set without further review. The Plant Site Emission Limit allows a source the flexibility to make changes within the Baseline

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plus SER range without triggering further air quality modeling analysis or control technology relating to major modifications.

Baseline, or as we refer to it Netting Basis, currently has a provision in the Oregon rules to be a declining cap. This is done by reducing the Netting Basis to not more than the source's potential to emit plus the SER. By doing this, old 'grandfathered' emissions are removed from a source's inventory unless they can still be used by the source under the current configuration. The Netting Basis reduction occurred starting July 1, 2007 and continues again at each permit renewal thereafter. This is similar to the Plantwide Applicability Limit which allows for a declining cap upon renewal if actual emissions are below allowable.

Minor new source review is handled though the same process of comparing the Netting Basis with the proposed Plant Site Emission Limit. If the difference is greater than the SER, an air quality analysis is required to ensure standards and increments are not exceeded. If a standard or increment were threatened by the minor source, the Plant Site Emission Limit rule would require the permittee to reduce the impact, or would limit the emission rate of the source, before the permit is issued.

Oregon Plant Site Emission Limit and Federal Plantwide Applicability Limit

EPA states in document titled New Source Review Improvements Supplemental Analysis of Environmental Impacts of the 2002 Final New Source Review Improvement Rules that "The EPA expects that the adoption of Plantwide Applicability Limit provisions will result in net environmental benefit." The Oregon Plant Site Emission Limit, similar to the Plantwide Applicability Limit, has been and remains a mandatory requirement of the Oregon program.

The Oregon Plant Site Emission Limit and the federal Plantwide Applicability Limit are very similar in the incentives they provide and the way New Source Review applicability is determined under the two programs. Each of the concepts allows the flexibility for a source to make changes that they need without triggering New Source Review as long as they remain below the limit. In the Oregon program when the Plant Site Emission Limit is increased the new Plant Site Emission Limit level is compared to the Netting Basis (Baseline) to determine if additional analysis is required. If the increase is greater than the significant emission rate for a pollutant, an air quality analysis is required to ensure protection of the National Ambient Air Quality Standards and Prevention of Significant Deterioration increments. If the increase is due to a physical change or change in method of operation, control technology requirements apply to each piece of equipment that was modified and contributes to the increase in emissions (this includes pieces of equipment that were previously permitted and installed). Under the federal reform rules, New Source Review is triggered if the Plantwide Applicability Limit is to be increased. Under the Oregon Plant Site Emission Limit increases may not trigger New Source Review if the increase is due to a PCP or use of baseline existing capacity (these are not considered physical changes or changes in method of operation). In combination with our Netting Basis, the Plant Site Emission Limit provides the same incentives as the Plantwide Applicability Limit and also protects against violation of the National Ambient Air Quality Standards and Prevention of Significant Deterioration increments by looking at all changes in emissions (increases and decreases) since the baseline period (1977 or 1978), including those already permitted, installed and operating.

The Plant Site Emission Limit is set at the maximum level of expected emissions (projected

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future actual) from a source, not necessarily at the Baseline plus the SER. Setting the Plant Site Emission Limit in this manner maintains a more realistic emission inventory and keeps the airshed form being tied up by sources that do not intend to emit at that level. The Plantwide Applicability Limit, however similar, ties up airshed capacity by attaching it to a specific source (Plantwide Applicability Limit = Baseline plus SER).

The Plant Site Emission Limit is a mandatory element of the Oregon permitting process so concepts like the clean-unit exemption have no impact or meaning under our program. This is the same as for a facility that chooses to have a Plantwide Applicability Limit under the federal program.

Oregon's New Source Review equivalency demonstration

#### Introduction

Oregon DEQ of Environmental Quality has a long history with an established, mature Major New Source Review and Prevention of Significant Deterioration (Prevention of Significant Deterioration) permitting program, contained in an approved State Implementation Plan (SIP), that works well to control emissions, provide incentives for facility upgrades and improve air quality. The Oregon Major New Source Review/Prevention of Significant Deterioration program was established in the early 1980's and its ongoing success and industry acceptance provided one of the models to support the development of the federal New Source Review reform rules.

## Federal New Source Review Reform

New Source Review Reform adopted by EPA in December 2002 has five major components or concepts. The five major concepts are: Plantwide Applicability Limit, Baseline (2 in 10 years), Pollution Control Project exemption, Clean Unit exemption and Baseline Actual to Projected Future Actual emissions. For sources covered by a Plantwide Applicability Limit the other major concepts of New Source Review Reform, with the possible exception of PCP exemption, do not apply.

#### Conclusion:

DEQ's program is equivalent because:

Plant Site Emission Limit provides same incentives and flexibility as Plantwide Applicability Limit.

Plant Site Emission Limit and Plantwide Applicability Limit consistently simplify the New Source Review applicability determination which was one of the major goals of New Source Review reform.

As we understand it, with a Plantwide Applicability Limit based program, there is no need to address other reform concepts because they are all covered by the Plantwide Applicability Limit.

Oregon maintains a successful, established, demonstrated and mature program that has contributed to the ability to attain and maintain National Ambient Air Quality Standards.

How the Oregon Major New Source Review/Prevention of Significant Deterioration program

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works:

A fixed baseline period [OAR 340-200-0020(14)] of 1977 or 1978 (or a year prior if more representative of normal operation) has been established in the Oregon rules. The Baseline Emission Rate [OAR 340-200-0020(13)] is defined as actual emissions during the baseline period. The Netting Basis is established as the Baseline Emission Rate minus any rule required reductions, minus any credits transferred offsite, minus any unassigned emissions reductions [OAR 340-222-0045(5)] due to decreased capacity, plus any increases approved through a major New Source Review/Prevention of Significant Deterioration action. The projected emissions (this would be the Plant Site Emission Limit in the permit) at a new or modified source are compared to the Netting Basis[OAR 340-200-0020(71)]. If the difference between the Plant Site Emission Limit and the Netting Basis is greater than a Significant Emissions Rate [OAR 340-200-0020(124)], further analysis is required depending on the designation of the area and the size of the new or modified source.

Within a designated Nonattainment or Maintenance area [OAR 340-204-0030 and 340-204-0040, respectively], if a significant increase in emissions over the Netting Basis is due to a new source, or a physical change or change in method of operation of an existing source, New Source Review [OAR 340-224-0050 or 340-224-0060] applies (including control technology, ambient air quality analysis and net air quality benefit). If the increase is due to use of existing capacity (increased hours of operation), control technology is not required but the other requirements still apply.

Within an attainment or unclassifiable area, only ambient air quality analysis is required unless the source is also a federal major source (100 tons per year for sources in a listed category or 250 tons per year if not listed). Federal major sources are required to implement the full Prevention of Significant Deterioration requirements of our rules including control technology and ambient impact analysis. Sources that are located outside nonattainment or maintenance areas are not allowed to have an effect greater than the significant impact level (OAR 340-200-0020(161)] on any nonattainment or maintenance areas. Offsets may be used to demonstrate reductions in impact levels. [OAR 340-224-0070]

The Oregon program accumulates all increase and decreases in emissions since the baseline year when evaluating if a source is subject to major New Source Review/Prevention of Significant Deterioration. Any source that did not exist during the baseline period has a zero baseline and Netting Basis unless the source goes through full New Source Review/Prevention of Significant Deterioration and establishes a Netting Basis through construction approval.

Baseline and Netting Basis are set and adjusted using the best data available. If a better emission factor or emission estimation method is established, the Baseline and Netting Basis, as well as the Plant Site Emission Limit, are adjusted based on this better information.

Basic DEQ and EPA New Source Review/Prevention of Significant Deterioration Program Differences

DEQ's New Source Review/Prevention of Significant Deterioration rules differ from EPA's regulations in a number of fundamental ways.

The DEQ program has lower major source thresholds, so smaller new sources and changes to

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smaller existing sources are subject to review.

The DEQ program utilizes a plant-wide cap approach to defining major modification rather than a contemporaneous net emissions increase approach as does EPA's rules. The effect of this plant-wide cap approach is that some changes which would be subject to review under EPA's rules are not subject under DEQ's rules and vice versa.

DEQ accumulates all emissions increases and decreases from physical changes or changes in the method of operation since the baseline year or last major source permit, whichever is more recent, rather than just during a "contemporaneous" time period. This aspect of DEQ's program creates an incentive for sources to voluntarily reduce emissions in order to avoid triggering New Source Review/Prevention of Significant Deterioration.

The Plant Site Emission Limit rules have provisions that require the Plant Site Emission Limit and netting basis to be reduced if emission reductions at the sources occur and make the caps excessively high.

The Plant Site Emission Limit also eliminates the possibility of a gradual increase of emissions over time by piecemeal projects not triggering New Source Review/Prevention of Significant Deterioration. Under the federal rules, an increase or decrease in actual emissions is contemporaneous.

Changes which would result in increased emissions, but would not be considered modifications under EPA's rules, are reviewed for compliance with standards and increments under DEQ's Plant Site Emission Limit program.

EPA evaluated and initially approved the DEQ New Source Review program in 1982 as being equivalent or more stringent than EPA's regulations on a program basis and more recently in 2011.

Continued Implementation of Oregon New Source Review/Prevention of Significant Deterioration Program

Based on conversations with EPA Region 10, there are definite advantages of the Oregon program over the federal program, including simplicity in determining applicability of the program as noted by some commenters. The following list contains elements of the federal New Source Review/Prevention of Significant Deterioration program that make it potentially less stringent and more complicated than Oregon's program:

The ability to subtract from projected future actual emissions any increase due to demand growth

The ability to subtract from projected future actual emissions anything a source was capable of accommodating before the change that is unrelated to the change

The ability to disaggregate changes at a facility that are involved in a project

The question of whether emissions increases from debottlenecking should be included in the modification

The fact that fugitive emissions are not included in emissions increase for all source categories

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Potential exemptions for routine repair and replacement

The ability to pursue the netting credits approach, which involves a 5-year contemporaneous period that is plant wide

The ability to pick different baseline years for each pollutant involved in a change.

The unenforceability of the projected actual emissions in the test of whether a major modification has occurred

Oregon's New Source Review/Prevention of Significant Deterioration program was used as one of the models to support the development of the Plantwide Applicability Limit option in the federal New Source Review/Prevention of Significant Deterioration rules. DEQ has determined that the benefits of Oregon's New Source Review/Prevention of Significant Deterioration program far outweigh any advantages of the federal program. Changes will be made to incorporate greenhouse gases into Oregon's New Source Review/Prevention of Significant Deterioration program.

Oregon hasn't always met the National Ambient Air Quality Standards and initially had several communities designated by the EPA as non-attainment areas for ozone, carbon monoxide and particulate. DEQ developed attainment plans for these areas which included more stringent controls, such as limits on emissions of solvents and particulate matter limits on wood particle dryers and hardboard press vents. The more stringent controls on industrial emissions resulted in reductions to the Plant Site Emission Limit and netting basis. In this sense, the Plant Site Emission Limits help achieve compliance with the National Ambient Air Quality Standards even though they are not used to demonstrate compliance with the standards. With these and other control strategies, all of the nonattainment areas under DEQ's jurisdiction were redesignated as maintenance areas in the 1990s and have remained in compliance ever since.

The PM10 control strategies in the maintenance plans were so effective that when EPA developed the first PM2.5 ambient air quality standards, there were no PM2.5 nonattainment areas in the state. Only later when EPA reduced the PM2.5 National Ambient Air Quality Standards, two areas in the state were designated as nonattainment areas. An additional area in the state is violating the standard based on recent monitoring data, but it has not officially been designated as a nonattainment area yet.

Based on the fact that the only National Ambient Air Quality Standards violations in the state are for a pollutant for which EPA recently lowered the standards, DEQ's air quality program has been very successful in protecting air quality in the state.

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

I have lived in Oregon for 35 of my 41 years. In recent years I have developed asthma & I can't help but wonder if moving back into SE, near Johnson Creek & Precision Cast parts has something to do with my half lung capacity. I understand that PCP might provide local jobs but at the cost of what? Stricter regulations on air pollutants are a no brainer.

DEQ received comments in this category from commenter 28 listed in the *Commenter section* below.

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## Response:

DEQ is aware that asthma is a significant health problem for many Oregonians. We understand that there are multiple causes, triggers and aggravators of asthma, including genetic factors, allergens, personal behaviors, the indoor environment and outdoor pollutants. Because each person's situation and exposures vary, it is critical to consult a physician to determine your own personal asthma factors. DEQ currently has no specific information that emissions from Precision Cast Parts are associated with asthma problems. However outdoor pollutants, especially woodsmoke and diesel exhaust present in the Portland area, can worsen asthma. Between 2011 and 2013 there were higher levels of particulates monitored in SE Portland and Hillsboro during periods of winter air stagnation. The primary source of Portland particulates is wood-burning. DEQ is currently working with local governments to encourage households to reduce wood-burning during winter months to prevent unhealthy levels of particulate.

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

There is so much in the air that we breathe that singly could be considered non toxic or even benign when considered individually. Many of these chemicals combine in the atmosphere to actually create a very hazardous "stew." DEQ should consider the cumulative effects of concentrations in neighborhoods and the "spike phenomenon" where total releases remain within limits, but concentrated bursts create poor air quality. Some airsheds are already overloaded.

DEQ received comments in this category from commenter 8 listed in the *Commenter section* below.

#### Response:

Oregonians experience exposure to multiple air pollutants, and exposure levels vary widely depending on time spent in dense urban areas, on or near busy roadways, neighborhood levels of wood burning, and proximity to commercial and industrial emissions. DEQ has worked successfully with many communities statewide to control ozone (smog) and particulate pollution, but challenges remain as federal standards become more protective. In our air permitting program for industrial facilities, Oregon ensures compliance with federal regulations limiting emissions of air pollutants.

With the assistance of an Air Toxics Science Advisory Committee, DEQ has adopted a set of protective benchmarks or clean air goals for 52 toxic air pollutants that are known or suspected to cause serious health effects. Each chemical-specific air benchmark was calculated so that exposure of people to carcinogenic and noncarcinogenic chemicals at benchmark levels does not exceed acceptable levels. For chemicals that cause cancer, the benchmark value represents an acceptable level of carcinogenic risk – that is, not to exceed a risk of more than 1 additional incidence of cancer in a population of 1 million people (1 x 10 over a lifetime. For chemicals that can cause noncarcinogenic effects, the benchmark value represents a concentration which is unlikely to cause an appreciable risk of adverse noncancer effects over a lifetime. (Each air toxics benchmark is individually set at a very protective level in part because DEQ is aware that people are exposed to many chemicals at

## Category 11: Other Comments

once, with the intent being to also be protective of potential cumulative air exposure risks.) DEQ monitoring and computer modeling indicates that Oregonians are exposed to unacceptably high levels of several air toxics, especially from diesel, woodsmoke and automobile emissions. DEQ is working to reduce risks from air toxics in those categories.

Since the primary health concern with air toxics is long-term exposure to lower levels, Oregon's existing air toxics benchmarks were calculated to be comparable to averaged annual concentrations of air toxics. In response to public concerns about short-term, higher pollutant levels, or spikes, DEQ is currently working with our Air Toxics Science Advisory Committee to investigate the scientific validity and public health benefit of establishing short-term guidelines to serve as additional clean air goals.

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

The commenter is concerned about the rule changes proposed by the DEQ. Do I understand correctly that the air quality protocols will be lessened by these changes? I certainly hope that I have gotten some misinformation, because if this is true, I find it terribly disturbing! After all the good work that was and has been done to improve and keep air quality to a positive standard for the health and well-being of all citizens, it would be a travesty to set the bar lower to satisfy commercial and financial interests!

DEQ received comments in this category from commenter 18 listed in the *Commenter section* below.

### Response:

DEQ is proposing rule changes that would have an overall positive effect on air quality. For example, DEQ is proposing to lower particulate matter standards, thus providing a greater level of health protection around the state. In areas where air quality is close to ambient air quality standards, DEQ is proposing rules that would allow for economic development in those areas as long as the new or expanding business offsets its air pollution with the shutdown of other air pollution sources, such as old woodstoves, the main cause of poor air quality in many areas around the state.

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

DEQ needs to take care of our world by doing inspections of permitted facilities. Permittees pay fees every year but don't receive inspections. DEQ never gives good information on improvements but threatens if fees aren't paid. DEQ should do what they are supposed to do and not give themselves raises or bonuses.

DEQ received comments in this category from commenter 29 listed in the *Commenter section* below.

#### Response:

DEQ permits hundreds of facilities on general permits, including the commenter's facility, for autobody shops that spray coat motor vehicles. These types of permits are on a five year inspection cycle and the commenter's facility is due for an inspection in 2016. Permittees are always welcome to call their inspectors at any time with any questions regarding compliance

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and pollution prevention. With limited resources, DEQ staff are not able to visit each permitted facility every year.

Oregon increased the Air Contaminant Discharge Permit fees in 2007. At that time, DEQ expected the 20 percent increase to sustain the program until 2011. DEQ implemented extensive program streamlining over the last decade that delayed the need for a fee increase. The 2013 legislature authorized a 20 percent fee increase to restore services for operating Oregon's Air Contaminant Discharge Permit program. DEQ implemented this increase in a 2014 rulemaking that increased fees by 20%.

The Air Contaminant Discharge Permit program is part of Oregon's federally approved State Implementation Plan required to meet national air quality standards.

Oregon's Air Contaminant Discharge Permit program:

- Administers federal health standards, air toxic requirements and other regulations.
- Reduces the number of unhealthy air days and health risks from air toxics.
- Issues, renews or modifies permits to prevent or reduce air pollution through permit requirements.
- Ensures that existing pollution sources comply with state and federal air emissions standards.
- Ensures that new sources of air pollution install controls such as filtration equipment, combustion controls and vapor controls needed to protect air quality.
- Provides other essential services such as State Implementation Plan development, emission inventories, technical assistance, inspections, enforcement, rule and policy development, data management and reporting to EPA.

The permit fees also help support a portion of air quality monitoring, planning, and agency central services such as accounting and human resources.

Ninety-two percent of the revenue that Oregon needs to provide the requisite air quality program services comes from permit fees and state General Fund and federal funds provide the balance.

DEQ sends reminder letters to businesses if fees are not paid on a timely basis.

DEQ staff sometimes receive a Cost of Living Adjustment if negotiated by the collective bargaining unit. The COLA in 2009-2011 was 0%; 2011 - 1.5%; 2012 - 1.45%; 2013 - 1.5; and 2014 - 2%.

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

First, Intel should be held to the highest standards for pollution control and required to use the best achievable control abatement technology. It is incumbent upon DEQ to work with the legislature to require zero toxin release from their plants. Allowing Intel and other semiconductor plants to release toxins that we breathe so they can make money is unacceptable. Intel says they reduce their pollution by 85% or so. If they can do that, then just keep adding the scrubbers, charcoal filters, etc. to reduce the toxic emissions to zero. If required to do so, they will find a way to do it. Emissions should be monitored continuously by two independent third parties funded by Intel. We cannot allow Intel to self-report. Not

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reporting their fluoride emissions for decades needs to be considered. A paltry \$143,000 fine was a slap in our faces.

To protect children's health, it is important for Oregon DEQ to adopt rules for Intel and any other producer of semiconductors or related materials to employ Best Available Control Technology for fluoride and other toxic emissions. Specifically, please retain Oregon's current regulations and in addition please add to Section (66) "Federal Major Source" part (e) Source categories: add Manufacturing - Semiconductor and related devices (SIC Code 3674 so that Intel will be classified as a major source and be required to adhere to more stringent air quality regulations.

DEQ received comments in this category from commenters 1, 5, 6, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 21, 22, 23, 25, 26, 27, 28, 32, 33, 34, 36, 37, 45, 49, 50, 51, 54, 55 and 59 listed in the *Commenter section* below.

## Response:

DEQ does not agree with the commenters.

With respect to Title V, Intel will be required to get a Title V operating permit based on their projected emissions of NOx, CO and VOC. Title V permits are required by the 1990 Clean Air Act Amendments for all large sources and a limited number of smaller sources. The Title V permit program streamlines the way permitting authorities regulate air pollution by consolidating all air pollution control requirements into a single comprehensive operating permit that covers all aspects of a source's year-to-year air pollution activities. The program was designed to ensure better compliance, to allow for more thorough air pollution control and provide an opportunity for citizens to be involved in the permit review process. Sources are required to provide emissions reports at least semiannually and must certify their compliance status annually. These compliance certifications must be signed by a responsible official of truth, accuracy, and completeness based on information and belief formed after reasonable inquiry. A responsible official is someone in upper management that has the authority to influence the day-to-day operations of the facility. There is civil and criminal liability for false reporting. Because of the compliance certification requirements under the Title V program, there is no need for independent third party monitoring. In summary, the Title V permitting program is intended to ensure compliance with all applicable air quality regulations; however, Title V does not increase the stringency of any of those regulations.

EPA has worked with the U.S. Semiconductor Industry Association (SIA) in their voluntary efforts to reduce high global warming potential (GWP) greenhouse gas emissions by following a pollution prevention strategy. As far back as 1996, Intel and the U.S. Semiconductor Industry Association (SIA) formalized an early voluntary commitment for PFC reduction in a memorandum of understanding (MOU) with EPA. This is believed to be the first voluntary industry action in the world aimed at reducing GHG emissions. That commitment entailed data gathering and emissions reduction efforts. This was followed by a second MOU whereby SIA member companies agreed to a hard target to reduce absolute PFC emissions 10% below 1995 levels by the year 2010. This second MOU has been embraced in other regions around the world as part of an international semiconductor industry voluntary agreement through the World Semiconductor Council (WSC).

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The semiconductor industry continues to employ a hierarchy in development of PFC emission reduction technology structured around the pollution prevention concepts of reduction, replacement, re-use/recycle, and abatement. These development areas are as follows:

- 1. Process optimization/alternative processing—reduces the amount of PFCs that are used and emitted
- 2. Alternative chemistries—reduces or eliminates emissions
- 3. Capture/recovery—re-uses or recycles PFCs
- 4. Abatement—destroys, reduces, or eliminates PFC emissions so they are not emitted

Intel met the goal to reduce company-wide absolute PFC emissions 10% below 1995 levels by the year 2010 in spite of the fact that manufacturing volumes have increased roughly fourfold since 1995. This means that on a production basis, Intel has reduced its greenhouse gas emissions by nearly 80 percent as compared to 1995 levels. As a result of Intel's efforts to meet these voluntary agreements, current processes have already incorporated many steps to reduce emissions of global warming compounds. These actions include a mix of chemical substitution, process optimization and add on controls.

While PFC emission reductions have been an important focus for Intel, it also has taken other actions to reduce total greenhouse gas emissions. The existing D1D facility in Hillsboro, Oregon was constructed with a heat recovery system on the boilers that reduces their natural gas consumption (and subsequent CO2 emissions) by more than 50% from a similar size fabricator without heat recovery. Intel has dedicated funds to energy conservation and the site has implemented a number of other energy conservation projects that have helped reduce natural gas consumption. As a result of these actions, total greenhouse gas emissions at the Oregon campus have seen a decline similar to the one seen for Intel-wide PFC emissions (see figure 2). This has occurred despite an increase in manufacturing activity at the Oregon site of more than 3 times since 2000.<sup>4</sup>

As discussed in this response and in response 0, DEQ determined Intel already operates emission control systems that would very likely be considered Best Available Control Technology, so there is little to be gained from making the proposed change. Therefore, adopting rules to align with the Supreme Court decision not to require Prevention of Significant Deterioration permits on the basis of greenhouse gas emissions alone will not have an effect on greenhouse gas emissions from Intel.

With respect to adding semiconductor manufacturing to section (e) of the definition of "federal major source," Intel will automatically be classified as a "federal major source" if any of its non-GHG emissions equal or exceed 250 tons per year. The types of facilities that are listed in the definition are classified as federal major sources if they have any non-GHG emissions equal to or more than 100 tons per. The proposed change to add semiconductor manufacturers to the list of facility types listed in section (e) of the definition of federal major source would cause Intel to trigger Prevention of Significant Deterioration. However, as discussed below and in response 0, DEQ sees little environmental benefit to making Intel subject to PSD.

DEQ also does not agree with the comment to retain rules that would make sources subject to

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PSD for greenhouse gases alone, as discussed in response 0.

Intel was required to submit a permit application for the D1X expansion on December 31, 2014. In addition, Intel was required to submit a fluorides control technology and ambient air quality modeling assessment of fluorides and hydrogen fluoride. Both the application and assessment were submitted as required.

The permit application is for a maintenance area New Source Review (NSR) permit. Maintenance NSR and PSD are both parts of the major NSR permitting program. The differences between the maintenance NSR application and a PSD permit application are shown below:

Type of analysis	PSD	NSR
Air quality analysis for PM10, PM2.5, NO2 and CO	Required	Required
Air quality analysis for fluorides	Not Required *	Not required * See Note 1 below
Air quality analysis for greenhouse gases	Not required *	Not required *
BACT ** analysis for NOx and CO	Required	Required
BACT analysis for greenhouse gases (GHG)	Required	Not required See Note 2 below
BACT analysis for fluorides	Required	Not required See Note 3 below

<sup>\*</sup> An air quality analysis is only required for pollutants for which an Ambient Air Quality Standard exists. There are no Ambient Air Quality Standards for fluorides or greenhouse gases.

#### Note 1

As part of a Mutual Agreement and Order (MAO), Intel was required to conduct an air quality modeling analysis for fluorides and hydrogen fluoride. Such an analysis would normally not be required, but was included as a requirement in the MAO because of public concerns about fluorides emissions. The air quality modeling analysis also covered hydrogen fluoride. The analysis results were as follows:

Annual average hydrogen fluoride concentration:  $0.50 \,\mu\text{g/m}^3$ ; and

Annual average fluorides concentration:  $0.38 \mu g/m^3$ .

The hydrogen fluoride result is below the Oregon benchmark concentration of  $14 \mu g/m^3$ . Oregon does not have an ambient standard or benchmark for fluorides, but some other states do have ambient air limits, guidelines or reference values. The values range from 6 to 27  $\mu g/m^3$ , and the model result is below all of them.

## Note 2

<sup>\*\*</sup> BACT is described in response 0.

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Intel currently operates emission control devices known as point of use controls, or POUs. As indicated in response 0, DEQ believes that little or nothing would be gained by conducting a BACT analysis for greenhouse gases. Furthermore, it should be noted that the POUs break down fluorine-containing greenhouse gases, which results in increased generation of fluorides and hydrogen fluoride; thus, even if more POUs could be used, doing so might result in higher emissions of fluorides and hydrogen fluoride.

## Note 3

As part of the MAO, Intel was required to conduct an emission control technology review for fluorides. The control technology review is not considered to be an official BACT analysis; however, Intel followed the procedure for conducting a BACT analysis. The conclusion of the analysis was that Intel's existing emission control system for fluorides is the best available for a semiconductor manufacturing facility.

In summary, the differences between the NSR application and a PSD application are in the areas of BACT analyses for GHGs and fluorides. With respect to GHGs, as indicated in this response and in response 0, there is little environmental value in conducting a BACT analysis for GHGs. With respect to fluorides, Intel did perform an analysis of fluorides emission controls using the BACT procedure. Finally, although it would not be required by either type of permit application, Intel performed an air quality analysis for fluorides and hydrogen fluoride.

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

 $<sup>^4</sup> http://www.epa.gov/semiconductor-pfc/index.html\\$ 

# Commenters

Comments received by close of public comment period

The table below lists 59 people and organizations that submitted public comments about the proposed rules by the deadline on Monday, Sept. 15, 2014, at 5 p.m. Original comments are on file with DEQ.

Commenter Number	Name	Affiliation	Commenter submitted comments under the following categories in the Summary of comments and DEQ responses section above
1	Howard Ashley	None	11.6
2	John Ledger	Associated Oregon Industries	0, 1.3, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.24, 1.26, 1.28, 1.29, 1.30, 1.31, 1.38, 1.39, 1.40, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.12, 6.13, 6.17, 6.18, 6.19, 9.6, 10.1
3	Mike Riley	ATI Primary Titanium Operations	0, 1.3, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.24, 1.26, 1.28, 1.29, 1.30, 1.31, 1.38, 1.9, 1.40, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.12, 6.13, 6.17, 6.18, 6.19, 9.6, 10.1
4	Mike Riley	ATI Specialty Alloys & Components	0, 1.3, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.24, 1.26, 1.28, 1.29, 1.30, 1.31, 1.38, 1.39, 1.40, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.12, 6.13, 6.17, 6.18, 6.19, 9.6, 10.1
5	Robert Bailey	None	11.6
6	Myra Beeler	None	11.6
7	Russell Strader	Boise Cascade Wood products	0, 1.3, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.24, 1.26, 1.28, 1.29, 1.30, 1.31, 1.38, 1.30, 1.40, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.12, 6.13, 6.17, 6.18, 6.19, 6.20, 9.6, 10.1
8	Michael Byrne	None	11.3
9	Rev. Caren Caldwell	None	0, 11.6

Commenter Number	Name	Affiliation	Commenter submitted comments under the following categories in the Summary of comments and DEQ responses section above
10	Eric Canon	None	0, 11.6
11	Pat Clark	None	0, 11.6
12	Jess Brown	Collins Companies	1.1, 3.1, 3.3, 4.1, 4.3, 6.2, 6.10, 6.19
13	Darren Nichols	Columbia River Gorge Commission	1.26
14	Kristina DiPaola	None	0, 11.6
15	Russell A. Dondero	None	0, 11.6
16	Paul & Stephanie Edwards	None	0, 11.6
17	Jules Elias	None	11.6
18	Mildred Estrin	None	0, 11.4
19	Val Evers	None	11.6
20	Drew Gilpin	Evraz	0, 1.3, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.24, 1.26, 1.28, 1.29, 1.30, 1.31, 1.38, 1.30, 1.40, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.12, 6.13, 6.17, 6.18, 6.19, 9.6, 10.1
21	Dale Feik	None	11.6
22	Linda Feik	None	11.6
23	Anne Ferguson	None	0, 11.6
24	Richard Till	Friends of the Columbia Gorge	1.5, 1.7, 1.25, 1.26, 1.27

Commenter Number	Name	Affiliation	Commenter submitted comments under the following categories in the Summary of comments and DEQ responses section above
25	Steve & Marilyn Hall	None	0, 11.6
26	The Rev. Heather Lynn Hanson	None	0
27	John Hayes	None	0, 11.6
28	Gitanjali Hursh	None	11.2
29	Rafael Ortega	IQ Collision Center Inc	11.5
30	Sandra Hicks	Intel	0
31	Max Hueftle	Lane Regional Air Pollution Agency	1.35
32	Warren Lancaster	None	11.6
33	Jim Lubischer	None	0, 11.6
34	Rudy Marchesi	None	0, 11.6
35	Peter Nelson	Marc Nelson Oil Products	9.7
36	Fred Marsh	None	11.6
37	Bonnie McDowell	None	0, 11.6
38	Martha Moore	None	9.1, 9.2, 9.3, 9.4, 9.5, 9.6
39	Tonnie Cummings	National Park Service	1.6
40	John Krallman	Neighbors for Clean Air/ Northwest Environmental Defense	1.4, 1.36, 2.1, 4.1, 4.2, 4.3, 5.1, 6.16, 7.1, 10.1

Commenter Number	Name	Affiliation	Commenter submitted comments under the following categories in the Summary of comments and DEQ responses section above
		Center/Columbia Riverkeeper	
41	Shanna Brownstein	NW Natural	0, 1.3, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.24, 1.26, 1.28, 1.29, 1.30, 1.31, 1.38, 1.39, 1.40, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.12, 6.13, 6.17, 6.18, 6.19, 9.6, 10.1
42	Kathryn VanNatta	Northwest Pulp & Paper Association	0, 1.3, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.24, 1.26, 1.28, 1.29, 1.30, 1.31, 1.38, 1.39, 1.40, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.12, 6.13, 6.17, 6.18, 6.19, 9.6, 10.1
43	Janet A. Gillaspie	Oregon Association of Clean Water Agencies	1.13, 3.2, 3.3
44	Lincoln Cannon	Oregon Forest Industries Council	0, 1.1, 1.3, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.24, 1.26, 1.28, 1.29, 1.30, 1.31, 1.38, 1.39, 1.40, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.12, 6.13, 6.17, 6.18, 6.19, 9.6, 10.1
45	Karin Pfeiffer- Hoyt	None	0, 11.6
46	Sam Hartfield/David Breen	Port of Portland	1.32, 1.33, 1.34, 3.1, 3.4, 6.2, 10.2
47	Ray Hendricks	PGE	0, 1.3, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.24, 1.26, 1.28, 1.29, 1.30, 1.31, 1.39, 1.39, 1.40, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.17, 6.18, 6.19, 9.6, 10.1
48	Kristana Lee	Roseburg Forest Products	0, 1.2, 1.3, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.24, 1.26, 1.28, 1.29, 1.30, 1.31, 1.38, 1.39, 1.40, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.12, 6.13, 6.17, 6.18, 6.19, 9.6, 10.1
49	Bob Sagar	None	11.6
50	Del Schrag	None	11.6

Commenter Number	Name	Affiliation	Commenter submitted comments under the following categories in the Summary of comments and DEQ responses section above
51	Jack Timmons	None	0, 11.6
52	Debra Suzuki	US Environmental Protection Agency	1.36, 6.14, 6.15
53	James Pena	US Forest Service	11.6
54	Loren Waltz	None	11.6
55	Ruth and William Warren	None	11.6
56	Paul Burns	Waste Management	0, 1.16, 1.23, 1.37
57	Frank E. Holmes	Western States Petroleum Association (WSPA)	1.8, 1.12, 1.31, 3.2, 9.8, 10.2, 11.1
58	Dale Wonn	Weyerhaeuser	0, 1.3, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.17, 1.18, 1.19, 1.20, 1.21, 1.22, 1.24, 1.26, 1.28, 1.29, 1.30, 1.31, 1.38, 1.39, 1.40, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.12, 6.13, 6.17, 6.18, 6.19, 9.6, 10.1
59	Sharon Genasci	None	11.6

# **Implementation**

The details of rule implementation outlined below are still under development and subject to change.

#### Notification

If approved, the proposed rules would become effective upon filing with Secretary of State, approximately April 20, 2015. DEQ would notify affected parties by sending information to all permit holders by email and postcards to permit holders not signed up for email notices. DEQ would also post the announcement of the adopted rules on the DEQ website.

Compliance and enforcement

## Affected parties:

- Incorporating amended applicable requirements into Title V and Air Contaminant Discharge Permits and ensuring compliance: Current DEQ rules require that DEQ place new and amended standards into Title V and Air Contaminant Discharge Permit permits. Once the new and amended standards are incorporated into a permit, DEQ is required to inspect pollution control systems or prevention methods and to review monitoring data and compliance reports as part of their routine compliance inspections. Inspections may identify violations of emission limits and standards.
- Title V Sources: OAR 340-218-0200 requires each issued permit to be reopened and revised if additional applicable requirements under the federal clean air act become applicable to a major Title V source with a remaining permit term of 3 or more years. Such a reopening must be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to OAR 340-218-0130. Amendments to federal standards would be incorporated upon permit renewal.
- Non-Title V Sources: The amended applicable requirements would need to be incorporated into these facility's permits. DEQ would incorporate the applicable requirements at permit renewal.

DEQ staff: The permit writing team and enforcement staff would develop internal compliance and enforcement guidance on the proposed rules for permit writers and inspectors.

Measuring, sampling, monitoring and reporting

Affected parties – DEQ proposed updates to the Source Sampling Manual and the Continuous Monitoring Manuals. Changes to testing and monitoring requirements would be incorporated into the permits of affected parties.

DEQ staff - DEQ staff would process and review compliance reports submitted by affected parties to determine compliance with the amended applicable requirements.

## Systems

- Website DEQ's headquarters office would update its website with any new or amended permits, permit application forms and compliance reporting forms.
- Database DEQ would use its existing TRAACS database to implement the Title V
  and Air Contaminant Discharge Permit programs and track compliance with the
  amended applicable requirements.
- Invoicing DEQ would use its existing TRAACS database for invoicing if any should be necessary.

## **Training**

Affected parties - If the proposed rules are approved by EQC, DEQ plans to hold meetings around the state for affected facilities to explain the rule changes. DEQ staff would participate in the December Northwest Environmental Conference in Portland informing people about the rulemaking. Attendees at this conference include representatives from large and small businesses.

DEQ staff – Staff members have been updated on the proposed rulemaking at numerous internal meetings. The rulemaking team presented the proposed rules in great detail at the February 2015 Inspectors' Forum (a semi-annual training forum for all permit writers and inspectors from around the state). If additional training is needed, training meetings would be held before or in conjunction with those for affected facilities.

# Requirement

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 from five-year rule review

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

- Amend or repeal an existing rule. ORS 183.405 (4)
- Rules adopted to correct errors or ommissions. ORS 183.405(d)

## Five-year rule review required

No later than April 20, 2020, DEQ will review the newly adopted rules 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 allowed under ORS 183.405 (2).

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