December 20, 2019
Kathleen George, Chair
Oregon Environmental Quality Commission
700 NE Multnomah St, Suite 600
Portland, Oregon 97232

## Re: Petition to Promulgate Indirect Source Rules

## Dear Chair George:

Since at least 2012, the Oregon Department of Environmental Quality (DEQ) has identified diesel pollution as a major threat to human health and the environment. DEQ has also proposed several strategies to reduce diesel emissions, but the majority of these recommendations have not been implemented. Pursuant to ORS 183.390 and OAR 137-001-0070, Petitioners request that the Environmental Quality Commission (EQC) adopt the rule language proposed herein to reduce emissions from indirect sources.

On behalf of 21 co-petitioners, Melissa Powers, on behalf of the Green Energy Institute at Lewis \& Clark Law School (GEI), Mark Riskedahl, on behalf of the Northwest Environmental Defense Center (NEDC), and Mary Peveto, on behalf of Neighbors for Clean Air (Neighbors), hereby submit this Petition for Agency Rulemaking to the EQC.

Petitioner GEI is an energy and climate policy institute within Lewis \& Clark Law School's environmental, natural resources, and energy law program. GEI's mission is to develop comprehensive legal and policy strategies to advance a swift transition to a fully decarbonized energy system. GEI supports the adoption of air quality regulations that protect human health and reduce negative climate impacts by preventing emissions of black carbon, a type of fine particulate matter that has a disproportionate impact on global temperatures.

Petitioner NEDC is an independent, non-profit organization dedicated to preserving and protecting the natural environment of the Pacific Northwest. NEDC envisions a future in which Oregon leads the nation in developing, implementing, and enforcing strong laws and regulations that protect the environment and human health. NEDC has a long history of advocacy for improved air quality in Oregon.

Petitioner Neighbors is a non-profit organization whose mission is to create a healthier Oregon by reducing harmful air pollution. Neighbors believes that Oregonians have a right to know what is in the air we breathe, and that an engaged and well-informed public working closely with community organizations, government agencies, and businesses is our most powerful tool in bringing about fundamental change in our laws and enforcement programs to reduce air toxics. Neighbors seeks to reduce short- and long-term exposure of Oregonians to air toxics in order to achieve safer air and a higher quality of life.

Accompanying this letter are a list of the co-petitioners, proposed rule language and the petition, and documents available through this Google drive,
https://drive.google.com/drive/folders/1HZoKo4_iJriKbgfhVis6IIIs8DG0PHCe,
that provide greater detail about the risks of diesel emissions and why indirect source rules are necessary to reduce harmful emissions.

Thank you for considering this request.

Melissa Powers
The Green Energy Institute at Lewis \& Clark Law School 10015 SW Terwilliger BLvd.


Mark Riskedahl
Northwest Environmental Defense Center
10015 SW Terwilliger Blvd.


Mary Peveto
Neighbors for Clean Air
P.O. Box 10544

Portland, OR 97296


# BEFORE THE OREGON ENVIRONMENTAL QUALITY COMMISSION 

## Petition to Adopt Rules Regarding Indirect Sources of Air Pollution

December 20, 2019
Pursuant to OAR 137-001-0070 and OAR 340-011-0046, and the following supporting facts and arguments, we petition the Oregon Environmental Quality Commission to promulgate a new rule pertaining to regulation of emissions of air pollutants from Indirect Sources. Petitioners Green Energy Institute at Lewis \& Clark Law School, Northwest Environmental Defense Center, and Neighbors for Clean Air have signed on behalf of all co-petitioners.

As per OAR 137-001-0070(1), petitioners are:

Green Energy Institute at Lewis \& Clark Law School 10015 SW Terwilliger Blvd.<br>Portland, OR 97219<br>powers@lclark.edu<br>ars@1clark.edu<br>Northwest Environmental Defense Center<br>Lewis \& Clark Law School<br>10015 SW Terwilliger Blvd.<br>Portland, OR 97219<br>msr@nedc.org<br>Jonah@nedc.org<br>Neighbors for Clean Air<br>P.O. Box 10544<br>Portland, OR 97296<br>Mary@whatsinourair.org

Beyond Toxics
P.O. Box 1106

Eugene, OR 97440
larkin@beyondtoxics.org
Center for Biological Diversity
P.O. Box 11374

Portland, OR 97211
RUkeiley@biologicaldiversity.org
Center for Sustainable Economy
P.O. Box 393

West Linn, OR 97068
nick.caleb@gmail.com

Climate Solutions<br>222 NW Davis St, Suite 300<br>Portland, OR 97209<br>zachariah.baker@climatesolutions.org<br>Columbia Riverkeeper<br>1125 SE Madison St, Suite 103A<br>Portland, OR 97214<br>erin@columbiariverkeeper.org<br>Earthjustice Northwest Regional Office<br>810 Third Ave., Suite 610<br>Seattle, WA 98104<br>pgoldman@earthjustice.org<br>Environment Oregon<br>1536 SE $11^{\text {th }}$ Ave, Suite B<br>Portland, OR 97214<br>celeste@environmentoregon.org<br>Forest Park Conservancy<br>833 SW $11^{\text {th }}$ Ave, Suite 800<br>Portland, OR 97205<br>Renee@forestparkconservancy.org<br>Friends of Mount Hood<br>P.O. Box 3098<br>Clackamas, OR 97015<br>kga@integra.net<br>Green Lents<br>12707 NE Halsey St.<br>Portland, OR 97230<br>adam@greenlents.org<br>OPAL<br>2788 SE 82 ${ }^{\text {nd }}$ Ave.<br>Portland, OR 97266<br>huy@opalpdx.org<br>Oregon Chapter of the Sierra Club<br>1821 SE Ankeny St.<br>Portland, OR 97214<br>rhett.lawrence@sierraclub.org

Oregon Environmental Council
222 NW Davis St, Suite 309
Portland, OR 97209
janag@oeconline.org
Oregon League of Conservation Voters
321 SW 4 ${ }^{\text {th }}$ Ave, Suite 600
Portland, OR 97204
dmoore@olcv.org
Oregon Physicians for Social Responsibility
1020 SW Taylor St, Suite 275
Portland, OR 97206
damon@oregonpsr.org
kelly@oregonpsr.org
Portland Audubon Society
5151 NW Cornell Rd.
Portland, OR 97210
bsallinger@audubonportland.org
Tualatin Riverkeepers
11675 SW Hazelbrook Rd.
Tualatin, OR 97062
ashley@tualatinriverkeepers.org
Verde
7001 NE Columbia Blvd.
Portland, OR 97218
tonydefalco@verdenw.org

## I. Proposed Rule Language

As required by OAR 137-001-0070(1)(a), petitioners request that the Environmental Quality Commission adopt the proposed rule language below:

## Section 1. Policy and Purpose

The Commission finds and declares indirect sources to be air contamination sources as defined in ORS 468A.005. The Commission further finds and declares that the regulation of indirect sources is necessary to control the concentration of air contaminants which result from aggregate mobile source emissions associated with the construction and/or operation of indirect sources.

## Section 2. Jurisdiction

Nothing in this rule shall preclude or restrict any city, county, or other political subdivision of this state from imposing local indirect source controls or requirements that are equivalent to or at least as stringent as the requirements established in this rule. Any city, municipality, or metropolitan service district with a population of less than 50,000 may by ordinance voluntarily select to be included within the geographic scope of this rule as specified in Section 4, subsection (1).

## Section 3. Definitions

The definitions in OAR 340-200-0020, 340-204-0010 and this rule apply to this division. If the same term is defined in this rule and in 340-200-0020 or 340-204-0010, the definition in this rule applies to this division.

1) "Accredited Emissions Verification Body" means any independent entity or individual approved by the Department to verify emissions data, calculations, estimates, and projections produced by or for an Indirect Source Construction Permit applicant. If the Department determines that any or all verification bodies accredited by the California Air Resources Board (CARB) are capable of providing the verification services necessary under this rule, the Department may authorize CARB-accredited verification bodies to provide the verification services required under section 5(7) of this rule.
2) "Aggregate emissions" or "aggregate mobile source emissions" means the total quantity of emissions of any regulated air pollutant from all mobile source activity associated with a development project, a Regulated Indirect Source, or other indirect source, within a sixty-minute, twenty-four-hour, or 365-day period.
3) "Air contaminant" or "air pollutant" means any dust, fume, gas, mist, odor, smoke, vapor, soot, carbon, acid, particulate matter, compound, regulated pollutant, or any combination thereof, which is emitted into or otherwise enters the ambient air.
4) "Air Impact Assessment" (AIA) means the calculation of emissions generated by the project and the emission reductions required by the provisions set forth in this rule. The AIA must be based solely on the information provided to the Department or Regional Authority having jurisdiction in the permit application, and must include all information listed in section 5(3) of this rule.
5) "Applicant" means an applicant for an Indirect Source Permit.
6) "Associated parking" means a parking facility or facilities owned, operated, and/or used in conjunction with an Indirect Source.
7) "Associated with" means any mobile source activity occurring within the physical or legal boundary of an indirect source, any mobile source activity originating or terminating at an indirect source, and any mobile source activity that passes through or operates within the boundaries of an indirect source for a limited period of time.
8) "Average daily traffic" or "ADT" means the total traffic volume during a twenty-fourhour period, as averaged over a one week, one month, or one year period.
9) "Baseline emissions" means the unmitigated aggregate emissions of any regulated air pollutant, as calculated by the Department-approved model, produced by or projected to be produced by mobile source activity within the boundary of or associated with an indirect source.
10) "Baseline construction emissions" means the sum of projected baseline emissions of any regulated pollutant from all mobile sources operating at the project site or associated with the project for the duration of construction activities, or any phase thereof, in total tons.
11) "Baseline operating emissions" means the sum of projected baseline emissions of any regulated pollutant from all mobile sources operating at the indirect source or associated with the indirect source, as calculated by the Department-approved model, for the first year of operations for that source, or any phase thereof, in tons per year.
12) "Best management practice" or "BMP" means a method, practice, activity, technology, or any combination thereof that is determined by the Department to be an effective means of preventing or reducing emissions of any regulated air pollutant.
13) "California Air Resources Board" or "CARB" means the state regulatory agency charged with regulating air quality in California.
14) "Carbon dioxide equivalent" or " $\mathrm{CO}_{2} \mathrm{e}$ " means an amount of a greenhouse gas or gases expressed as the equivalent amount of carbon dioxide, and is to be computed by multiplying the mass of each of the greenhouse gases by the global warming potential published for each gas at 40 C.F.R. part 98, subpart A, Table A-1-Global Warming Potentials, and adding the resulting value for each greenhouse gas to compute the total equivalent amount of carbon dioxide.
15) "Commence construction" means to begin to engage in a process or program of on-site construction or on-site modifications, including site clearance, grading, dredging, or landfilling in preparation for the construction, installation, or modification of a structure or facility. Interruptions and delays resulting from natural disasters, strikes, litigation, or other matters beyond the control of the owner or operator shall be disregarded in determining whether a construction or modification program is continuous.
16) "Commission" or "EQC" means the Environmental Quality Commission.
17) "Construction" means any physical change including, but not limited to, fabrication, erection, installation, demolition, or modification of a physical structure.
18) "Construction activity" means any process, operation, action, or reaction (e.g., chemical) of a mobile source or combination of mobile sources that emits a regulated pollutant and is associated with the construction of a development project.
19) "Construction emissions" means any exhaust emissions resulting from the use of internal combustion engines related to construction activity, which is under the control of the applicant or permittee through ownership, rental, lease agreements, or contract.
20) "Continuous monitoring systems" means sampling and analysis, in a timed sequence, using techniques that will adequately reflect actual emissions or concentrations on a continuing basis as specified in the DEQ Continuous Monitoring Manual, found in OAR 340-200-0035, and includes continuous emission monitoring systems, continuous opacity monitoring systems (COMS), and continuous parameter monitoring systems.
21) "Criteria pollutant" means any of the following regulated pollutants: nitrogen oxides, volatile organic compounds, particulate matter, $\mathrm{PM}_{10}, \mathrm{PM}_{2.5}$, sulfur dioxide, carbon monoxide, and lead.
22) "Department" means the Department of Environmental Quality.
23) "Department-approved model" means any computer model that estimates construction and/or operating emissions of any regulated air pollutant resulting from mobile source activity associated with an indirect source, using the most recent DEQ- or EPA-approved version of relevant emissions models and emission factors. Each such model should perform the following functions, as demonstrated by the California Emissions Estimator Model (CalEEMod):
(a) Quantify potential direct emissions of regulated pollutants from construction and operation activities, including emissions from on-road and nonroad vehicles and engines; and
(b) Identify mitigation measures to reduce emissions of regulated pollutants and quantify potential emissions reductions resulting from the application of available measures.
24) "Development project" or "project" means any activity, or portion thereof, that is subject to an approval by a public agency, and will ultimately result in:
(a) The construction of a new building, facility, or structure;
(b) The reconstruction of a building, facility, or structure; or
(c) The demolition of a building, facility, or structure.
25) "Director" means the Director of the Department or Regional Authority and authorized deputies or officers.
26) "Emissions" means a release into the atmosphere of any regulated pollutant or any air contaminant.
27) "Emissions control technology" or "emissions control device" means technology added to a mobile source to reduce emissions of an air contaminant, including but not limited to catalytic converters and particulate filters. For the purpose of this rule, all emissions control technology must be verified by the EPA or CARB.
28) "Emissions mitigation measure" means any feature, activity, device, design, condition, or control technology, which is incorporated into the design, equipment, practices, or activities of a development project, or through other means, which will avoid, minimize, reduce or eliminate the emissions of any regulated air pollutant. All on-site emission reductions achieved beyond Department or state requirements shall count towards the project's emissions mitigation requirements. City, County, and other public agency requirements that result in emissions reductions that are additional to those required by the Department may also be credited towards a project's emission mitigation requirements.
29) "Emissions verification statement form" means a paper or electronic form developed by DEQ that must be completed by the permittee and verified by an Accredited Emissions Verification Body to report projected, actual, mitigated, or permitted emissions from all
mobile source activity associated with a development project or the operations of an indirect source.
30) "Greenhouse gas" or "GHG" means any gas that contributes to anthropogenic global warming including, but not limited to, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.
31) "Heavy duty motor vehicle" means any vehicle defined under OAR 340-256-0010(25).
32) "Indirect source" means a facility, building, structure, installation, or any portion or combination thereof, that attracts or may attract mobile sources of air pollution, or that directly or indirectly causes or may cause mobile source activity that results in emissions of any regulated pollutant. Such indirect sources shall include, but not be limited to:
(a) Parking Facilities;
(b) Retail, Commercial, and Industrial Facilities;
(c) Recreation, Amusement, Sports, and Entertainment Facilities;
(d) Office and Government Buildings;
(e) Educational Facilities;
(f) Hospital Facilities;
(g) Warehouses and freight distribution facilities;
(h) Rail terminals;
(i) Ports and marine terminals; and
(j) Development projects.
33) "Indirect Source Permit" means an Indirect Source Construction Permit or an Indirect Source Operating Permit.
34) "Indirect Source Construction Permit" means a written permit in letter form issued by the Department or Regional Authority having jurisdiction, bearing the signature of the Director, which authorizes the permittee to commence construction of a development project, including a development project that is or will be a Regulated Indirect Source, under construction and operating conditions and schedules as specified in the permit. An Indirect Source Construction Permit includes requirements for the construction of a development project and does not by itself provide authorization to operate the facility once construction is complete.
35) "Indirect Source Emission Control Program" or "ISECP" means a program which reduces mobile source emissions resulting from the use or operations of an Indirect Source. An ISECP may include, but is not limited to:
(a) Posting transit route and scheduling information;
(b) Construction and maintenance of bus shelters and turnout lanes;
(c) Maintaining mass transit fare reimbursement programs;
(d) Making a carpool matching system available to employees, shoppers, students, residents, etc.;
(e) Reserving parking spaces for carpools;
(f) Making parking spaces available for park-and-ride stations;
(g) Minimizing vehicle running time within parking lots through the use of sound parking lot design;
(h) Ensuring adequate gate capacity by providing for the proper number and location of entrances and exits and optimum signalization for such;
(i) Limiting traffic volume so as not to exceed the carrying capacity of roadways;
(j) Altering the level of service at controlled intersections;
(k) Obtaining a written statement of intent from the appropriate public agency(s) on the disposition of roadway improvements, modifications, and/or additional transit facilities to serve the individual source;
(1) Construction and maintenance of exclusive transit ways;
(m)Providing for the collection of air quality monitoring data at reasonable receptor and exposure sites;
(n) Limiting facility modifications which can take place without resubmission of permit application.
36) "Indirect Source Operating Permit" means a written permit in letter form issued by the Department or Regional Authority having jurisdiction, bearing the signature of the Director, which authorizes the permittee to commence or continue operations of a Regulated Indirect Source under operating conditions and schedules as specified in the permit.
37) "Indirect Source Permit Application" means an application for an Indirect Source Construction Permit or an Indirect Source Operating Permit.
38) "Metropolitan service district" means a metropolitan service district established under ORS Chapter 268.
39) "Mitigated construction emissions" means the projected or actual aggregate emissions generated by mobile source activity within or associated with a development project after on-site emission mitigation measures have been applied.
40) "Mitigated operating emissions" means the projected or actual aggregate emissions generated by mobile source activity within or associated with an indirect source after onsite emission mitigation measures have been applied.
41) "Mobile source" means a self-propelled vehicle powered by an internal combustion engine or an internal combustion engine installed inside a piece of equipment designed for off-road use, including an engine installed in equipment that is not self-propelled and is not permanently installed at a stationary facility or location. Mobile sources include both on-road and nonroad vehicles and engines, including but not limited to automobiles, trucks, motorcycles, engines used in nonroad construction equipment, locomotives, marine vessels, and aircraft.
42) "Mobile source activity" means any process, operation, action, or reaction (e.g., chemical) of a mobile source or combination of mobile sources that emits a regulated pollutant.
43) "Monitoring" means any form of collecting data on a routine basis to determine or otherwise assess compliance with emission limitations or standards. Monitoring may include record keeping if the records are used to determine or assess compliance with an emission limitation or standard such as records of raw material content and usage, or records documenting compliance with work practice requirements. Monitoring may also include one or more of the data collection techniques listed under OAR 340-2000020(94).
44) "Monitoring and Reporting Schedule" or "MRS" means a form or document listing an applicant's selected emissions mitigation measures and describing how and when the applicant will implement, monitor, and enforce such mitigation measures and demonstrate compliance with applicable standards and permit requirements.
45) "Nitrogen oxides" or " $\mathrm{NO}_{\mathrm{x}}$ " means all oxides of nitrogen.
46) "Nonroad vehicle" or "nonroad engine" means any mobile source designed or intended exclusively for off-road or non-highway use.
47) "Off-street area or space" means any area or space not located on a public road dedicated for public use.
48) "Operating emissions" means the aggregate mobile source emissions associated with the operations of a Regulated Indirect Source.
49) "Owner or operator" means a person or entity that owns or operates an indirect source.
50) "Parking facility" means any building, structure, lot, or portion thereof, designed and used primarily for the temporary storage of motor vehicles in designated parking spaces.
51) "Parking space" means any off-street area or space below, above, or at ground level, open or enclosed, that is used for parking one motor vehicle at a time.
52) "Person" means individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the State and any agencies thereof, and the federal government and any agencies thereof.
53) "Particulate matter" or "PM," in the context of this rule, means all finely divided solid or liquid material, other than uncombined water, and including black carbon, emitted to the ambient air through the combustion of any fossil fuel in an internal combustion engine.
54) " $\mathrm{PM}_{2.5}$ " or "PM- 2.5 " means:
(a) When used in the context of emissions, means finely divided solid or liquid material, including condensable particulate, other than uncombined water, with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers, emitted to the ambient air as measured by the test method specified in each applicable rule or, where not specified by rule, in each individual permit;
(b) When used in the context of ambient concentration, means airborne finely divided solid or liquid material with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers as measured under 40 CFR part 50, Appendix L or an equivalent method designated under 40 CFR part 53.
55) "Permit," when used in this rule, means an Indirect Source Construction Permit, an Indirect Source Operating Permit, any permit attachments, and/or any amendments or modifications thereof.
56) "Permittee" means the owner or operator of an indirect source that is authorized to emit regulated pollutants under an Indirect Source Construction Permit or an Indirect Source Operating Permit.
57) "Population" means that population estimate most recently published by the Center for Population Research and Census, Portland State University, or any other population estimate approved by the Department.
58) "Project site" means the spatial, physical, or legal boundaries of a development project.
59) "Reasonable receptor and exposure sites" means locations where people might reasonably be expected to be exposed to air contaminants generated in whole or in part by the Indirect Source in question.
60) "Regional Authority" means a regional air quality control authority established under the provisions of ORS 468A. 105.
61) "Regulated air pollutant" or "regulated pollutant" means:
(a) Any criteria pollutant for which there is a National Ambient Air Quality Standard or any air contaminant for which an ambient air quality standard has been promulgated, including any precursors to such pollutants; and
(b) Any air contaminant for which the Department or the United States Environmental Protection Agency determined may reasonably be anticipated to endanger the public health or welfare of current or future generations, including greenhouse gases.
(c) Air contaminants subject to regulation under this rule include but are not limited to carbon dioxide, carbon monoxide, particulate matter (including $\mathrm{PM}_{2.5}$ and $\mathrm{PM}_{10}$ ), nitrogen oxides, nitrous oxide, sulfur dioxide, and methane.
62) "Regulated Indirect Source" means any indirect source that must obtain an Indirect Source Operating Permit under section 4(3)(a) prior to commencing or continuing operations.
63) "Total contract value" means the full dollar value of a fully executed contract.
64) "Transit development project" means any project solely intended to create a passenger transportation service that is local, metropolitan, or regional in scope and that is available to any person. Examples of transit development projects include transportation by bus, rail, or other conveyance, either publicly or privately owned, which is provided to the public or specialty service on a regular or continuing basis. Also known as "mass transit," "mass transportation," or "public transportation."
65) "Transportation development project" means any project solely intended to create a new paved surface that is used for the transportation of motor vehicles, or any structural support thereof. Examples of transportation development projects include streets, highways and any related ramps, freeways and any related ramps, and bridges. This does not include development projects where traffic surfaces are a portion of the project, but not the main land-use.
66) "Vehicle trip" means a single movement by a motor vehicle which originates at, terminates at, passes through, or otherwise uses an indirect source.

## Section 4. Sources Required to Have Indirect Source Permits

(1) Geographic Scope. An indirect source identified in Section 4, subsection (2) or (3), and located within a city, municipality, or metropolitan service district with a population of at least 50,000 must obtain, prior to commencing construction or operation or continuing operation beyond one year following the final promulgation of this rule, an Indirect Source Permit from the Department or Regional Authority having jurisdiction.
(2) Sources required to have Indirect Source Construction Permits. Except as specified in Section 4, subsection (2)(d), the owner, operator, or developer of a development project identified in Section 4, subsection (2)(a), shall not commence construction of such a project without an approved Indirect Source Construction Permit issued by the Department or Regional Authority having jurisdiction. A development project is or will be a Regulated Indirect Source listed under Section 4, subsection (3)(a) must also obtain an Indirect Source Operating Permit before the Regulated Indirect Source may commence operation.
(a) Applicability. Except as specified in Section 4, subsection (2)(d), this section shall apply to any applicant that seeks to commence construction of a development project, or any portion thereof, which upon full build-out and/or project completion will include:
(A) Any permanent residential, commercial, or industrial structure with an area of at least 10,000 square feet;
(B) Any parking facility or other indirect source with associated parking being constructed or modified to create new or additional parking or associated parking capacity of 500 or more parking spaces;
(C) The demolition of any permanent residential, commercial, or industrial structure with an area of at least 10,000 square feet, where such demolition does not represent an incremental phase of construction as specified in Section 4, subsection (b);
(D) The excavation of any lot or portion of any lot area where the total area of disturbance will equal or exceed 8,000 square feet; or
(E) Any development project with a total contract value of $\$ 1,000,000$ or more, where:
(i) Baseline construction emissions are estimated to equal or exceed one (1.0) ton per year of $\mathrm{PM}_{2.5}, \mathrm{NO}_{\mathrm{x}}$, or any other criteria pollutant; or 2,500 metric tons $\mathrm{CO}_{2}$ e per year of any other air pollutant subject to this rule; or
(ii) Baseline construction emissions could reasonably be anticipated to result in ambient concentrations of $\mathrm{PM}_{2.5}$ within the boundaries of the facility exceeding one microgram per cubic meter $\left(1 \mu \mathrm{~g} / \mathrm{m}^{3}\right)$ during any sixty-minute period between the hours of 7:00 a.m. and 7:00 p.m. PST, or exceeding $2 \mu \mathrm{~g} / \mathrm{m}^{3}$ during any other sixty-minute period.
(b) Development projects with incremental phases of construction.
(A) Where an Indirect Source is constructed or modified in increments which individually are not subject to review under this rule, and which are not part of a program of construction or modification in planned incremental phases approved by the Director, all such increments commenced after January 1, 2020 shall be added together for determining the applicability of this rule.
(B) An Indirect Source Construction Permit may authorize more than one phase of construction where commencement of construction or modification of successive phases will begin over acceptable periods of time referred to in the permit; and thereafter construction or modification of each phase may be begun without the necessity of obtaining another permit.
(c) Projects on Contiguous or Adjacent Property.
(A) The owner, operator, or developer of any two or more development projects on contiguous or adjacent property under common ownership of a single entity in whole or in part that is designated and zoned for the same development density and land use, regardless of the number of tract maps, where the total combined build out and/or completion of all development projects would trigger applicability of this rule under Section 4, subsections (2)(a) or (2)(b), must apply for an Indirect Source Construction Permit under this section.
(B) Single development projects where individual structures and/or associated parking capacity are to be developed in phases must calculate the total combined area and/or aggregate parking capacity based on the
development project as a whole when determining the applicability of this rule.
(d) Exemptions. The following projects shall be exempt from the requirements of Section 4, subsection (2):
(A)A development project identified in Section 4, subsection (2)(a), that has received final discretionary approval prior to January 1, 2020 and commences construction within 18 months of receiving final discretionary approval.
(B) A development project identified in Section 4, subsection (2)(a), that has commenced construction prior to January 1, 2020.
(C) A development project that has mitigated construction emissions below one (1.0) ton per year of $\mathrm{PM}_{2.5}$.
(3) Indirect Sources required to have Indirect Source Operating Permits. Except as specified in Section 4, subsection (3)(b), the owner or operator of an indirect source identified in Section 4, subsection (3)(a), shall not commence or continue operations beyond one year following the final promulgation of this rule, without an approved Indirect Source Operating Permit issued by the Department or Regional Authority having jurisdiction.
(a) Applicability. Except as specified in Section 4, subsection (3)(b), Section 4, subsection (3) shall apply to any applicant that seeks to commence or continue operation of an indirect source, or any portion thereof, if any of the following conditions are met:
(A) Total aggregate emissions from all mobile source activity associated with the facility exceeds one (1.0) ton per year of $\mathrm{PM}_{2.5}, \mathrm{NO}_{\mathrm{x}}$, or any other criteria pollutant; or 2,500 metric tons per year $\mathrm{CO}_{2} \mathrm{e}$ of any greenhouse gas that is a regulated air pollutant under this rule;
(B) Ambient concentrations of $\mathrm{PM}_{2.5}$ within the boundaries of the facility exceed one microgram per cubic meter $\left(1 \mu \mathrm{~g} / \mathrm{m}^{3}\right)$ during any sixty-minute period between the hours of 7:00 a.m. and 7:00 p.m. PST, or exceed 2 $\mu \mathrm{g} / \mathrm{m}^{3}$ during any other sixty-minute period;
(C) Vehicle trips by heavy duty diesel motor vehicles, as defined by OAR 340-256-0010, associated with the indirect source equal or exceed 50 within any 24 -hour period;
(D) The aggregate engine power of all mobile sources operating within the indirect source in any 24-hour period equals or exceeds 5,000 horsepower; or
(E) Aggregate mobile source activity associated with the site consumes or is reasonably expected to consume 750 or more gallons of diesel fuel and/or gasoline in any 24 -hour period.
(b) Exemptions. The following indirect sources shall be exempt from the requirements of Section 4, subsection (3):
(A) An indirect source that has mitigated operating emissions below one (1.0) ton per year of $\mathrm{PM}_{2.5}$.

## Section 5. Indirect Source Permit Application Process

(1) Fees. Persons applying for an Indirect Source Permit shall at the time of application pay a permit fee established by the Commission.
(2) Indirect Source Permit Application requirements. An applicant for an Indirect Source Construction Permit or an Indirect Source Operating Permit shall submit the following to the Department:
(a) A completed Short Form Application;
(b) A map showing the location and size of the site;
(c) A description of the current, proposed, and/or prior use of the site;
(d) The location of current or expected mobile source activity at the site;
(e) An estimate of the annual average weekday vehicle trips generated by the movement of mobile sources to and from the site. A development project shall provide estimates for the first and fifth years after completion of each planned incremental phase of the indirect source;
(f) A description of the availability and type of mass transit presently serving or projected to serve the indirect source. This description shall include mass transit operation within one-quarter mile of the boundary of the indirect source;
(g) A completed Air Impact Assessment, as specified in Section 5, subsection (3) of this rule;
(h) A completed list of emissions mitigation measures, as specified in Section 5, subsection (4) of this rule;
(i) A completed Monitoring and Reporting Schedule, as specified in Section 5, subsection (5) of this rule;
(j) Applicants for an Indirect Source Construction Permit shall also provide a site plan and detailed project description including, but not limited to:
(A) The location and size of all proposed earth-clearing activity at the site;
(B) A proposed project schedule;
(C) If residential, the number and type of dwelling units;
(D) If commercial or industrial, the facility type and interior square footage;
(E) The location and quantity of parking spaces at the indirect source and associated parking area; and
(F) Points of motor vehicle ingress and egress to and from the site and associated parking.
(k) Applicants for an Indirect Source Operating Permit shall also provide:
(A) A list of all mobile sources associated with or reasonably expected to be associated with the facility on a daily, weekly, and monthly basis; and
(B) The make, model, and model year of any mobile sources associated with the facility that are under the applicant's ownership or control.
(l) Such additional information as may be required when there is reasonable basis for concluding:
(A) The indirect source may cause or contribute to a violation of the Clean Air Act Implementation Plan for Oregon;
(B) The indirect source may cause or contribute to a delay in the attainment of or a violation of any applicable ambient air quality standard, or may cause or contribute to the violation of any applicable increment; or
(C) The information is necessary to determine whether the proposed indirect source may cause or contribute to any such delay or violation. The Department shall base such conclusion on any reliable information, including but not limited to ambient air monitoring, traffic volume, traffic speed, or air quality projections based thereon.
(3) Air Impact Assessment. An applicant for an Indirect Source Permit must submit an Air Impact Assessment (AIA) with its Indirect Source Permit Application. The AIA shall meet the following requirements:
(a) The applicant shall estimate and quantify construction and operational emissions of any air pollutants subject to this rule that may reasonably be expected to be produced by mobile source activity associated with the indirect source, including but not limited to fine particulate matter $\left(\mathrm{PM}_{2.5}\right)$, nitrogen oxides $\left(\mathrm{NO}_{\mathrm{x}}\right)$, carbon dioxide, and methane. The applicant's AIA shall include:
(A) If the applicant seeks an Indirect Source Construction Permit:
(i) The estimated baseline construction emissions of every regulated pollutant that may reasonably be produced from mobile source activity associated with the project, for each phase of the project; and
(ii) The mitigated construction emissions of every regulated pollutant that may reasonably be produced from mobile source activity associated with the project, for each phase of the project; and
(B) If the applicant seeks an Indirect Source Operating Permit:
(i) The estimated baseline operating emissions of every regulated pollutant that is or may reasonably be produced from mobile source activity associated with the project on an annual basis; and
(ii) The mitigated operating emissions of every regulated pollutant that is or may reasonably be produced from mobile source activity associated with the project on an annual basis.
(b) The AIA analysis shall use a Department-approved model to calculate the estimated baseline emissions and mitigated emissions associated with the project. The applicant shall submit to the Department copies of all model runs conducted for the project.
(c) The AIA may be developed by the permit applicant or by a third-party.
(d) The applicant shall include in its application any other information and documentation that supports the baseline and mitigated emissions calculations specified in the AIA.
(4) Emissions Mitigation Measures. If the applicant's Air Impact Assessment indicates that the project's baseline emissions will or may exceed the applicable emissions limits specified in Section 6, subsection (2) of this rule or in Section 7, subsection (2) of this rule, the applicant must submit a list of one or more emissions mitigation measures capable of achieving required emissions reductions from the indirect source. Emissions mitigation measures identified through a Department-approved model are presumed to be capable of achieving quantifiable emissions reductions, as specified through the model. The applicant's selected emissions mitigation measures must comply with the following requirements:
(a) Emissions mitigation measures must achieve quantifiable, verifiable, and permanent reductions in emissions of any regulated pollutants.
(b) Measures must be fully enforceable through permit conditions, development agreements, or other legally binding instrument entered into by the applicant and the Department.
(5) Monitoring and Reporting Schedule. An Indirect Source Permit Application shall include a completed proposed Monitoring and Reporting Schedule (MRS) for the applicant's selected emissions mitigation measures. A proposed MRS shall outline how the mitigation measures will be implemented and enforced, and must include the following information:
(a) A list of emissions mitigation measures the applicant has selected to reduce emissions of any regulated air pollutants subject to this rule;
(b) Standards for determining compliance with selected mitigation measures, such as funding, record keeping, reporting, installation, and/or contracting requirements;
(c) A reporting schedule;
(d) A monitoring schedule;
(e) Identification of the responsible entity for implementation; and
(f) Provisions for failure to comply.
(g) Applicants proposing emissions mitigation measures that require ongoing funding shall provide evidence in the proposed MRS of continued funding.
(6) Additional Requirements for Development Projects that are or will be Regulated Indirect Sources. If the development project is or will be a Regulated Indirect Source under Section 4, subsection (3)(a), the following Long Form Application information shall be submitted to the Department:
(a) All information required under Section 5, subsection (2);
(b) An estimate of the average daily traffic, peak hour, and peak eight hour traffic volumes for all roads, streets, and arterials within $1 / 4$ mile of the Regulated Indirect Source and for all freeways and expressways within $1 / 2$ mile of the nearest boundary of the Regulated Indirect Source for the time periods stated in Section 5, subsection (2)(e) as they exist at the time of application;
(c) An estimate of the gross baseline emissions of any regulated pollutants covered under this rule;
(d) Estimated air pollutant levels at reasonable receptor and exposure sites. Estimates shall be made for the first, fifth, and tenth years after the Regulated Indirect Source is completed or fully operational. Such estimates shall be made for the average and, if applicable, peak operating conditions.
(e) Evidence of the compatibility of the Regulated Indirect Source with any adopted transportation plan for the area;
(f) An estimate of the additional residential, commercial, and industrial developments which may occur concurrent with or as the result of the construction and use of the Regulated Indirect Source; and
(g) A description of the Indirect Source Emission Control Program the facility's owner or operator will implement to mitigate operational emissions from mobile source activity associated with the facility's operations.
(7) Independent Third-Party Verification. An applicant for an Indirect Source Permit shall obtain independent verification of the indirect source's baseline emissions and mitigated emissions from an Accredited Emissions Verification Body. The applicant shall submit
an Emissions Verification Statement Form signed by an Accredited Emissions Verification Body with its Indirect Source Permit Application.
(8) Timing.
(a) An applicant shall apply for an Indirect Source Construction Permit at least 90 days in advance of the anticipated start of construction.
(b) An applicant shall apply for an Indirect Source Operating Permit at least 90 days in advance of the anticipated start of operations at the source. The owner or operator of a Regulated Indirect Source that was engaged in operations on or before the date on which this rule went into effect shall apply for an Indirect Source Operating Permit no later than 365 days following the final promulgation of this rule.
(9) Completeness. An application shall not be considered complete until the required information is received by the Department or Regional Authority having jurisdiction. If no timely written request is made for additional information, the application shall be considered complete.

## Section 6. Indirect Source Construction Permit Requirements

(1) Permit content. An Indirect Source Construction Permit must include at least the following:
(a) A requirement to construct according to approved plans;
(b) A requirement to comply with all applicable requirements;
(c) Emission limits for aggregated mobile source activity and operations associated with the development project;
(d) Monitoring requirements;
(e) Any specialized monitoring equipment (e.g., continuous monitoring systems) requirements, if applicable;
(f) Notification and reporting requirements;
(g) A permit expiration date of no more than five years; and
(h) If upon completion the development project will be a Regulated Indirect Source as defined under Section 4, subsection (3)(a), a requirement to obtain an Indirect Source Operating Permit before commencing operation of the facility.
(2) Indirect Source Construction Permit emissions requirements.
(a) Emissions standards. A holder of an Indirect Source Construction Permit (the permittee) shall comply with the following requirements:
(A) The average exhaust emissions for all non-road construction vehicles, engines, and equipment greater than twenty-five (25) horsepower used or associated with the development project may not exceed 0.02 grams per kilowatt-hour $(\mathrm{g} / \mathrm{kW}-\mathrm{hr}) \mathrm{PM}_{2.5}$ or $0.4 \mathrm{~g} / \mathrm{kW}-\mathrm{hr} \mathrm{NO}_{\mathrm{x}}$ during any sixtyminute period.
(B) The average exhaust emissions from all on-road diesel-fueled vehicles and engines used or associated with the development project may not exceed 0.01 grams per brake-horsepower-hour (g/bhp-hr) $\mathrm{PM}_{2.5}$ or $0.2 \mathrm{~g} / \mathrm{bhp}-\mathrm{hr}$ $\mathrm{NO}_{\mathrm{x}}$ during any sixty-minute period.
(C) The total aggregate emissions associated with all construction activities of any air pollutants that are greenhouse gases subject to this rule shall not exceed ten metric tons per day $\mathrm{CO}_{2} \mathrm{e}$.
(b) Required emissions reductions. If a permittee's baseline construction emissions are estimated to exceed the emissions standards identified in Section 6, subsection (a), the permittee must achieve the following annual reductions in aggregate emissions from all construction activities associated with the development project until the emissions standards identified in Section 6, subsection (2)(a) are met:
(A) A 50 percent reduction in baseline construction emissions of $\mathrm{PM}_{2.5}$.
(B) A 50 percent reduction in baseline construction emissions of $\mathrm{NO}_{\mathrm{x}}$.
(C) For development projects that commence construction between January 1, 2021 and December 31, 2029, a 25 percent reduction in baseline construction emissions of any air pollutant that is a greenhouse gas that is a regulated pollutant under this rule.
(D) For development projects that commence construction after January 1, 2030, a 50 percent reduction in baseline construction emissions of any air pollutant that is a greenhouse gas that is a regulated pollutant under this rule.
(c) Emissions mitigation measures. A permittee shall achieve any required emissions reductions by implementing one or more emissions mitigation measures appropriate for the site or facility. A permittee may reduce construction emissions by using lower-emitting construction vehicles, engines, equipment, and other technologies designed to reduce emissions of regulated pollutants. A permittee may further reduce emissions of certain regulated pollutants by implementing best management practices (BMPs) approved by the Department. Emissions mitigation measures must comply with the requirements listed in Section 5, subsection (4) of this rule. Available emissions mitigation measures include but are not limited to:
(A) Using nonroad vehicles, engines, and equipment that meet tier 4 or above emissions standards;
(B) Using on-road diesel vehicles and engines that meet the most current and stringent emissions standards adopted by EPA or the State of California for the applicable vehicle or engine class;
(C) Using electric or other zero-emissions vehicles, engines, and equipment;
(D) Installing add-on pollution control devices and/or equipment to reduce emissions from non-compliant vehicles and engines;
(E) Reducing fuel consumption through use of fuel-efficient equipment and/or fuel-conserving BMPs;
(F) Using alternative fuels, such as renewable diesel, renewable natural gas, or biodiesel; and
(G) Implementing programs or practices to reduce vehicle trips to or from the indirect source or mobile source activity associated with the indirect source.

## Section 7. Indirect Source Operating Permit Requirements

(1) Permit content. An Indirect Source Operating Permit must include at least the following:
(a) A requirement to operate according to an approved permit;
(b) A requirement to comply with all applicable permit requirements;
(c) Emission limits for aggregated mobile source activity and operations associated with the indirect source;
(d) Monitoring requirements;
(e) Any specialized monitoring equipment (e.g., continuous monitoring systems) requirements, if applicable;
(f) Notification and reporting requirements; and
(g) A permit expiration date of no more than five years.
(2) Indirect Source Operating Permit emissions requirements.
(a) Emissions standards. The holder of an Indirect Source Operating Permit (the permittee) shall comply with the following requirements:
(A) The average exhaust emissions for all non-road vehicles, engines, and equipment greater than twenty-five (25) horsepower associated with the indirect source may not exceed 0.02 grams per kilowatt-hour ( $\mathrm{g} / \mathrm{kW}-\mathrm{hr}$ ) $\mathrm{PM}_{2.5}$ or $0.4 \mathrm{~g} / \mathrm{kW}-\mathrm{hr} \mathrm{NO}$
(B) The average exhaust emissions from all on-road diesel-fueled vehicles and engines associated with the indirect source may not exceed 0.01 grams per brake-horsepower-hour (g/bhp-hr) $\mathrm{PM}_{2.5}$ or $0.2 \mathrm{~g} / \mathrm{bhp}-\mathrm{hr} \mathrm{NO} \mathrm{N}_{\mathrm{x}}$ during any sixty-minute period.
(C) The total aggregate greenhouse gas emissions associated with all mobile source activities associated with the indirect shall not exceed ten metric tons per day $\mathrm{CO}_{2} \mathrm{e}$.
(b) Required emissions reductions. If a permittee's baseline operating emissions exceed or are estimated to exceed the emissions standards identified in Section 7, subsection (a), the permittee must achieve the following reductions in aggregate emissions from all mobile source activities associated with the indirect source until the emissions standards identified in section 7, subsection (2)(a) are met:
(A)A 50 percent reduction in baseline operating emissions of $\mathrm{PM}_{2.5}$.
(B) A 50 percent reduction in baseline operating emissions of $\mathrm{NO}_{\mathrm{x}}$.
(C) For indirect sources operating between January 1, 2021 and December 31, 2029, a 25 percent reduction in baseline operating emissions of any air pollutant that is a greenhouse gas that is a regulated pollutant under this rule.
(D) For indirect sources operating after January 1, 2030, a 50 percent reduction in baseline operating emissions of any greenhouse gas regulated under this rule.
(c) Emissions mitigation measures. A permittee shall achieve any required emissions reductions by implementing one or more emissions mitigation measures appropriate for the site or facility. A permittee may reduce operating emissions by using lower-emitting vehicles, equipment, or technologies. A permittee may further reduce emissions of certain regulated pollutants by implementing best management practices (BMPs) approved by the Department. Emissions mitigation measures must comply with the requirements listed in Section 5, subsection (4) of this rule. Available emissions mitigation measures include but are not limited to:
(A) Using nonroad vehicles, engines, and equipment that meet tier 4 or above emissions standards;
(B) Using on-road diesel vehicles and engines that meet the most current and stringent emissions standards adopted by EPA or the State of California for the applicable vehicle or engine class;
(C) Using electric or other zero-emissions vehicles, engines, and equipment;
(D) Installing emissions control technology, add-on emissions control devices and/or equipment to reduce emissions from non-compliant vehicles and engines;
(E) Reducing fuel consumption through use of fuel-efficient equipment and/or fuel-conserving BMPs; and
(F) Implementing programs or practices to reduce vehicle trips to or from the indirect source or to reduce mobile source activity associated with the indirect source, including but not limited to an Indirect Source Emission Control Program.

## Section 8. Issuance or Denial of Indirect Source Permits

(1) Issuance of an Indirect Source Permit shall not relieve the permittee from compliance with other applicable provisions of the Clean Air Act Implementation Plan for Oregon.
(2) After reviewing a complete Indirect Source Permit Application, the Department or Regional Authority having jurisdiction shall act to either disapprove a permit application or approve it with possible conditions.
(3) An Indirect Source Permit may be denied if:
(a) The Indirect Source will cause or contribute to a violation of the Clean Air Act Implementation Plan for Oregon;
(b) The Indirect Source will cause or contribute to a delay in the attainment of or cause or contribute to a violation of any National Ambient Air Quality Standard;
(c) The indirect source causes or contributes to any violation of any National Ambient Air Quality Standard by another indirect source or system of indirect sources;
(d) The indirect source will cause or contribute to air pollution in excess of any maximum allowable increase or maximum allowable concentration more than one time per year for any pollutant in any area to which such increments apply, or the indirect source will cause or contribute to air pollution in excess of any annual increment; or
(e) The applicable requirements for an Indirect Source Construction Permit or an Indirect Source Operating Permit application are not met.
(4) Notice. The issuance or denial of an Indirect Source Permit is subject to the public participation requirements established under OAR 340-209-0030. The Department shall notify the applicant in writing of its decision regarding the application and provide the following in writing to the applicant, all interested parties as identified by the applicant, and make available to the public:
(a) The Department's approval or disapproval determination of the permit application;
(b) The required emission reductions; and
(c) The amount of emissions reductions achieved through application of emissions mitigation measures.
(5) Any owner or operator of an indirect source operating without a permit required by this rule, or operating in violation of any of the conditions of an issued permit shall be subject to civil penalties and injunctions.
(6) Nothing in this rule shall preclude a city, county, Regional Authority, or other political subdivision of this state from establishing additional permit conditions or requirements for Indirect Source Permit applicants or permittees within its jurisdiction, so long as such permit conditions or requirements are no less stringent than those established in this rule.
(7) If the Department shall deny, revoke, or modify an Indirect Source Permit, it shall issue an order setting forth its reasons in essential detail.

## Section 9. Permit Duration

(1) An Indirect Source Permit issued by the Department or a Regional Authority having jurisdiction shall remain in effect until modified or revoked by the Department or such Regional Authority.
(2) The Department or Regional Authority having jurisdiction may revoke the permit of any indirect source acting in violation of the construction, modification, or operating conditions set forth in this permit.
(3) An approved Indirect Source Construction Permit may be conditioned to expire if construction or modification is not commenced within 18 months after receipt of the approved permit; and, in the case of a permit granted covering construction or modification in approved, planned incremental phases, a permit may be conditioned to expire as to any such phase as to which construction or modification is not commenced within 18 months of the time period stated in the initial permit for the commencing of construction of that phase. The Director may extend such time period upon a satisfactory showing by the permittee that an extension is justified.

## II. Facts and Arguments

As required per OAR 137-001-0070(1)(b), petitioners submit the following facts and arguments:
Emissions from mobile sources, including both on-road and nonroad vehicles and engines, present a substantial threat to human health and the environment. Diesel pollution is a particularly serious problem in Oregon's urban areas. Diesel exhaust contains toxic air pollutants that negatively impact human health and the environment. These pollutants, which include fine particulate matter, nitrogen oxides, and black carbon, have been linked to cancer, cardiovascular disease, and respiratory disorders. Black carbon is also a potent climate forcer that contributes to both local and global temperature increases. To reduce the significant health and environmental risks associated with diesel exhaust, the State of Oregon must implement effective strategies to reduce the levels of pollution emitted by diesel vehicles and engines. ${ }^{1}$

In addition to the significant health and climate impacts associated with emissions from dieselfueled vehicles, Oregon is also negatively impacted by the emissions from gasoline-fueled mobile sources. Gas-fired vehicles emit carbon monoxide, nitrogen oxides, and perhaps most significantly, carbon dioxide. The transportation sector is the largest source of carbon emissions in Oregon, and despite the state's greenhouse gas reduction goals, transportation sector emissions are rising rather than falling. ${ }^{2}$ Under the state's current policy framework, Oregon's transportation emissions are expected to drop to $15-20 \%$ below 1990 levels by 2050-falling far short of the state's $75 \%$ greenhouse gas reduction goal. ${ }^{3}$ To achieve Oregon's climate goals, the state must adopt additional regulatory mechanisms to reduce transportation-sector carbon emissions.

Indirect source rules, such as the rule for which petitioners hereby request promulgation, provide a legal avenue for state and local governments to reduce air pollution and carbon emissions from mobile sources, including both on-road and nonroad vehicles and engines operating within or associated with a distinct site or facility. The Clean Air Act (CAA) gives states broad discretion to adopt indirect source programs to control emissions from mobile sources. Indirect source rules would complement current and future state programs to improve air quality and reduce carbon emissions, because compliance with such other regulatory requirements would count towards a source's compliance obligations under indirect source rules as well. Indirect source rules would also enable the state to control harmful emissions that are not currently subject to regulation.

[^0]We strongly urge the Environmental Quality Commission (EQC) to initiate rulemaking proceedings to establish new regulations to address emissions from indirect sources. The EQC and the Department of Environmental Quality (DEQ) have legal and regulatory authority to adopt and implement the rule proposed by this petition, which would significantly reduce harm to public health, the environment, and the state's economy resulting from mobile source emissions.

## A. Reducing diesel emissions in Oregon is necessary to protect public health.

Diesel exhaust contains a variety of toxic air pollutants. The primary pollutants contained in diesel exhaust are particulate matter, black carbon (a type of fine particulate matter), nitrogen oxides, carbon monoxide and carbon dioxide. ${ }^{4}$ Diesel exhaust also contains more than 40 additional toxic pollutants, such as benzene, arsenic, and formaldehyde. ${ }^{5}$ These pollutants all have negative impacts on the health of Oregon residents.

The toxic compounds in diesel pollution have been linked with increased rates of cancer, heart disease, and respiratory illnesses. ${ }^{6}$ The World Health Organization classifies diesel exhaust as a known human carcinogen. ${ }^{7}$ Exposure to diesel exhaust increases lung and bladder cancer risks. ${ }^{8}$ The cancer risk associated with exposure to diesel pollution is significant; for example, the California Air Resources Board estimates that approximately 70\% of the air toxics-related cancer risk in California is attributable to diesel particulate matter. ${ }^{9}$ Diesel pollution has also been tied to cardiovascular disease and respiratory disorders and increases the risk of heart attacks and asthma attacks. ${ }^{10}$

A 2005 analysis by the Clean Air Task Force estimated that Oregon's diesel pollution is responsible for 176 premature deaths and 145 non-fatal heart attacks each year. ${ }^{11}$ The EQC recognizes diesel pollution as a human carcinogen and adopted a health-based ambient benchmark concentration for diesel particulate matter of 0.1 micrograms per cubic meter $\left(\mu \mathrm{g} / \mathrm{m}^{3}\right) .{ }^{12}$ Areas of Multnomah County with the highest concentrations of diesel exhaust have

[^1]estimated cancer risks of 542 -in- $1,000,000,{ }^{13}$ which is more than 500 times higher than the additional cancer risk associated with the EQC's benchmarks. ${ }^{14}$ Children and the elderly are particularly vulnerable to diesel pollution exposure, and the Clean Air Task Force estimated that diesel exhaust causes respiratory problems for thousands of Oregon children each year. ${ }^{15}$

Oregon's diesel emissions also inflict substantial societal and economic costs on the state. In total, the health and environmental impacts associated with Oregon's diesel pollution are estimated to cost the state's economy more than $\$ 1.6$ billion per year. ${ }^{16}$ By 2030, reductions in diesel pollution could prevent an estimated 460 premature deaths per year in Oregon and save the state's economy $\$ 3.5$ billion on an annual basis. ${ }^{17}$

## B. Reducing mobile source emissions is necessary to meet Oregon's greenhouse gas reduction goals.

Mobile sources powered by gasoline and diesel fuel are collectively the largest source of carbon emissions in Oregon. The state legislature adopted goals to reduce greenhouse gas emissions to levels $10 \%$ below 1990 levels by 2020 and at least $75 \%$ below 1990 levels by $2050 .{ }^{18}$ However, instead of dropping, carbon emissions from mobile sources operating in the state have increased by more than $20 \%$ since $1990 .{ }^{19}$ Unless Oregon takes swift action to reduce emissions from onroad and nonroad engines, mobile source emissions will prevent the state from achieving its climate goals.

Gasoline and diesel fuel consumption is a major contributor to the human-caused climate crisis. In 2017, Oregon's transportation sector consumed more than half a billion barrels of petroleum and emitted nearly 26 million metric tons of $\mathrm{CO}_{2}{ }^{20}$ These emissions represented nearly $40 \%$ of Oregon's total greenhouse gases for the year. ${ }^{21}$ Because carbon emissions directly correlate with fuel consumption, these emissions will decrease when fuel efficiency increases. However, the Clean Air Act limits state authority to directly regulate fuel efficiency or carbon emissions from mobile sources. Indirect source rules provide an opportunity for regulating carbon emissions at the state and local level without conflicting with federal law. Indirect source rules would also

[^2]complement other state efforts to reduce greenhouse gas emissions, such as a cap and trade program, because emissions reductions could count towards a source's compliance obligations under both programs.

While all fossil fuel consumption contributes to climate change through carbon emissions, diesel fuel consumption disproportionately contributes to climate change through black carbon emissions. Approximately $70 \%$ of the fine particulate matter in diesel exhaust is emitted as black carbon, which is an extremely potent short-lived climate forcer. ${ }^{22}$ Black carbon impacts global temperatures in three ways. ${ }^{23}$ First, it absorbs solar radiation in the atmosphere and then re-emits that radiation as heat. Second, when black carbon falls back to earth it darkens snow, ice, and lighter-colored surfaces, reducing the amount of sunlight the Earth typically reflects back out to space. And third, black carbon alters the reflectivity, stability, and precipitation from clouds.

An analysis by DEQ reported that black carbon emissions from diesel engines cause an estimated $\$ 274$ million in annual climate-related impacts in the state. ${ }^{24}$ These costs, however, could be quickly avoided: because black carbon is very short-lived (it only remains in the atmosphere for a period of days to weeks), reducing diesel emissions can create substantial near-term climate benefits in Oregon. ${ }^{25}$

The impacts of climate change are already imposing costs and burdens on Oregon's communities. Indirect source rules would enable the state to reduce carbon emissions from the transportation sector and help put Oregon on a trajectory to achieve its climate goals.

## C. Diesel particulate emissions are of particular concern in Oregon's urban centers and environmental justice communities.

Any exposure to diesel particulate matter presents risks to human health. Residents of the state's urban centers, which experience higher levels of diesel exhaust and associated air pollution concentrations, have a greater risk of suffering health impacts related to diesel exhaust exposure than Oregonians living in less urban areas. Low-income and minority communities are disproportionately impacted by diesel pollution. In Portland, for example, diesel pollution concentrations in communities of color may be three times higher than average concentrations within the city. ${ }^{26}$

Recent studies from Portland and Multnomah County illustrate these increased risks. This region typically experiences the highest levels of diesel exhaust and associated air pollution concentrations in Oregon, with many neighborhoods in the Portland metropolitan area exceeding

[^3]the state's health benchmarks for diesel particulate pollution. ${ }^{27}$ Testing by Portland State University detected localized diesel particulate concentrations that were 10 to 20 times higher than the state's safety benchmarks. ${ }^{28}$ Areas of Multnomah County with the highest concentrations of diesel exhaust have estimated cancer risks of 542 -in- $1,000,000$, which is much higher than the 1 -in-1,000,000 additional cancer risk associated with Oregon's air toxics benchmark standards. ${ }^{29}$

Low-income and minority populations living and working in neighborhoods with elevated diesel pollution concentrations are at increased risk of health problems associated with diesel exhaust exposure. ${ }^{30}$ Exposure to traffic pollution has also been shown to negatively affect near-term and long-term academic performance, and many low-income and minority students in the Portland area attend public schools where diesel pollution levels are higher than $80-90 \%$ of the United States. ${ }^{31}$ Regular exposure to elevated diesel pollution concentrations may have a permanent impact on these students' health, income, and professional potential.

## D. On-road and nonroad sources are major emitters of diesel particulate pollution.

Oregon's diesel pollution is generated by a wide variety of mobile on-road and nonroad diesel engines and vehicles. On-road diesel vehicles include, for example, heavy-duty trucks used to transport freight, medium-duty trucks used for local deliveries, and waste collection vehicles. Nonroad diesel vehicles and engines include most construction equipment, off-road vehicles, agricultural vehicles, lawn and garden equipment, trains, and marine vessels. In Portland, onroad and nonroad diesel engines are estimated to collectively emit more than 472 tons of particulate pollution each year and produce approximately $90 \%$ of the diesel particulate matter in the Portland metropolitan area. ${ }^{32}$ Similarly, recent emissions inventories in Lane and Marion

[^4]counties indicate that on-road and nonroad diesel engines account for the vast majority of those counties' diesel particulate emissions. ${ }^{33}$

According to pollutant modeling by DEQ's Portland Air Toxics Solutions (PATS) Advisory Committee, on-road diesel vehicles in the Portland metropolitan area were projected to emit an estimated 81.7 tons per year of toxic particulate pollution in 2017. ${ }^{34}$ In 2010, Portland's average concentrations of on-road diesel particulate pollution were more than 11 times higher than the state's health-based benchmark concentration. ${ }^{35}$ PATS estimated that on-road diesel emissions would need to decline by $91 \%$ to achieve Oregon's diesel particulate benchmark concentration. ${ }^{36}$

According to the PATS modeling, the majority of Portland's diesel particulate pollution comes from nonroad diesel engines, which were estimated to emit 344.8 tons per year of fine particulate matter. ${ }^{37}$ Most of this pollution is emitted from off-road construction vehicles and engines, though rail and marine engines also contribute to Portland's nonroad diesel pollution. With regard to the construction sector, Portland's average concentration of diesel particulate pollution from construction equipment was more than 12 times higher than the state's health-based benchmark. ${ }^{38}$ To achieve Oregon's diesel particulate benchmark concentration, PATS estimated that construction emissions would need to drop by $92.5 \%$, or by 228.7 tons per year. ${ }^{39}$ PATS measurements also showed average marine and railroad particulate pollution concentrations were more than eight and nine times higher, respectively, than Oregon's benchmark concentrations. ${ }^{40}$ To achieve Oregon's benchmark concentrations, rail and marine particulate emissions would need to be reduced by 42.8 tons per year. ${ }^{41}$

While the PATS projections clearly indicate that diesel particulate concentrations in the Portland area present a threat to public health, ongoing research by Portland State University and Reed College suggests that actual diesel emissions rates and pollution concentrations in the metro region may be much higher than the PATS modeling projected, particularly in the vicinity of active construction projects. In other words, diesel engines currently operating in the Portland area may be emitting dramatically more particulate pollution than the PATS team projected.

[^5]
## E. Indirect source rules can control aggregate emissions from on-road and nonroad vehicles and engines.

To mitigate the adverse health and environmental impacts from mobile source pollution, the State of Oregon must work to reduce local emissions from vehicles and engines. Indirect source rules provide a legal avenue for the state to control aggregate emissions from both on-road and nonroad vehicles and engines within a single site or facility.

The Clean Air Act (CAA) gives states broad discretion to adopt indirect source programs to control aggregate air pollution from mobile sources. CAA section 110 expressly authorizes states to regulate emissions from "indirect sources" of air pollution. ${ }^{42}$ An indirect source is a physical location that attracts or may attract mobile sources of air pollution. Buildings, parking lots, construction sites, highways, ports, and rail yards are all examples of indirect sources. ${ }^{43}$ Under the CAA, states may adopt indirect source programs that regulate the aggregate emissions produced by mobile sources within the boundaries of, or attracted by, an indirect source. In other words, indirect source rules are regulatory programs for controlling the total emissions produced by mobile sources associated with an indirect source, without directly regulating the emissions from individual vehicles and engines operating within the indirect source. Indirect source rules therefore empower state and local governments to indirectly regulate emissions from both onroad and nonroad vehicles and engines operating at or attracted to a single location. ${ }^{44}$

## F. Current regulations in Oregon fail to adequately address pollution from indirect sources.

The EQC previously adopted rules for indirect sources, but the program's scope is very limited and it has not had a meaningful impact on air quality in the state. Under existing EQC rules, indirect sources that intend to construct 1,000 or more parking spaces within the city limits of Portland, Salem, Eugene, or Medford, or 800 or more parking spaces in central Portland, must first obtain an indirect source construction permit from DEQ. ${ }^{45}$ No other indirect sources in the state are required to obtain permits under the existing rules. Because the regulations were designed primarily to address carbon monoxide emissions resulting from passenger vehicle trips, Oregon's rules for indirect sources fail to reduce emissions from diesel construction equipment and other nonroad vehicles and engines. Moreover, there is no available evidence to indicate that the current rules have measurably reduced emissions from on-road vehicles operating in Oregon's urban communities.

Further, Oregon's current indirect source construction permits generally do not impose any additional substantive requirements on the sources they cover. ${ }^{46}$ Under limited circumstances,

[^6]including if a source will cause or contribute to a violation of Oregon's CAA state implementation plan or a violation of any national ambient air quality standard (NAAQS), DEQ may require the source to establish an Indirect Source Emission Control Program (ISECP) containing selected measures to control emissions. ${ }^{47}$ The source may choose any single measure or combination of measures to reduce emissions through its ISECP, such as reserving parking spaces for carpools or reimbursing public transit fares. The source is not required, however, to demonstrate that its chosen measures will result in better air quality or NAAQS attainment. The source is also prohibited from including control measures that do not have "reasonably definable costs." ${ }^{48}$

Oregon's existing rules for indirect sources are thus quite limited in scope and effect, and have little measurable impact on mobile source pollution in the state. However, petitioners recognize that the rules have the potential to provide limited benefits in certain circumstances, and we are not requesting that the EQC repeal Oregon's existing rules for indirect sources. Instead, we urge the EQC to adopt the proposed indirect source rule to more effectively regulate toxic and harmful emissions from a wider variety of sources than those covered under the existing rules.

## G. Other jurisdictions have adopted effective indirect source rules.

Many state and local jurisdictions throughout the United States have adopted indirect source rules. The most effective indirect source rules apply to multiple types and classes of indirect sources, require specific reductions in air pollution emissions from construction and operating activities, give sources flexibility to implement a variety of on-site and/or off-site emissions reduction measures, and include monitoring requirements and legally binding enforcement mechanisms to ensure compliance.

The San Joaquin Valley Air Pollution Control District (APCD) presents a notable example of effective indirect source regulation. The APCD has adopted a fairly comprehensive indirect source review program that applies to a variety of sources and requires measurable reductions in emissions from new and modified indirect sources above certain size thresholds. ${ }^{49}$ Before commencing construction, an indirect source must use computer models to project the source's baseline air pollution emissions, including emissions associated with the construction and daily operation of the facility. ${ }^{50}$ The source must then identify and implement a combination of on-site and/or off-site measures to reduce its baseline emissions by percentages specified in the rule. ${ }^{51}$ For example, an indirect source must reduce its construction-related $\mathrm{PM}_{10}$ emissions (i.e., the emissions generated during the facility's construction) by $45 \%$ and its operational $\mathrm{PM}_{10}$ emissions (i.e., the emissions generated during the completed facility's day-to-day operations) by $50 \% .{ }^{52}$ The indirect source may achieve these emissions reductions through on-site mitigation measures, such as retrofitting construction equipment with pollution control devices, or by

[^7]paying a fee to support off-site emissions reductions. ${ }^{53}$ If the indirect source is unable to reduce its emissions through on-site measures, it must pay an off-site emissions reduction fee for each ton of excess pollution it emits. ${ }^{54}$ San Joaquin Valley APCD uses $100 \%$ of the revenue it receives from off-site fees to fund emissions reductions projects within the district. ${ }^{55}$ The APCD's indirect source review program has had a meaningful impact on diesel pollution in the San Joaquin Valley. As of June 30, 2018, the program has prevented approximately 14,200 tons of $\mathrm{NO}_{\mathrm{x}}$ and $\mathrm{PM}_{10}$ emissions through on-site mitigation measures and reduced another 8,600 tons of $\mathrm{NO}_{\mathrm{x}}$ and $\mathrm{PM}_{10}$ through off-site emissions reduction projects. ${ }^{56}$

[^8]
## III. Propositions of Law

As required under OAR 137-001-0070(1)(c), petitioners submit the following propositions of federal and state law that support the EQC's authority to regulate emissions from indirect sources to protect air quality in Oregon.

## A. Federal Law: The Clean Air Act expressly authorizes state and local regulation of indirect sources.

The CAA gives states broad discretion to adopt indirect source programs to control mobile air pollution from mobile sources. CAA section 110 expressly authorizes states to regulate emissions from "indirect sources" of air pollution. ${ }^{57}$ The CAA defines "indirect source" as "a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution."58

Because an indirect source program imposes site-based emissions limitations or requirements, rather than vehicle or engine-based requirements, state and local indirect source rules are not preempted under CAA section 209, which prohibits states from adopting emission standards for motor vehicles. ${ }^{59}$ Courts have emphasized that the Clean Air Act grants states broad discretion to decide whether and how to regulate emissions from indirect sources. ${ }^{60}$

## B. State Law: The EQC has broad statutory authority to regulate air quality.

The EQC has clear authority under Oregon law to adopt the proposed indirect source rules. The legislature has provided that the EQC may establish by rule "areas of the state and prescribe the degree of air pollution or air contamination that may be permitted therein, as air purity standards for such areas." ${ }^{" 61}$ Similarly, the EQC, by rule, may "require permits for air contamination sources classified by type of air contaminants, by type of air contamination source or by area of the state. ${ }^{.62}$

The EQC has already correctly determined that it has statutory authority to regulate indirect sources, and it has exercised that authority, stating:

The Commission finds and declares Indirect Sources to be air contamination sources as defined in ORS 468A.005. The Commission further finds and declares that the regulation of Indirect Sources is necessary to control the concentration of air contaminants which result from Motor Vehicle Trips and/or Aircraft Operations associated with the use of Indirect Sources. ${ }^{63}$

[^9]The proposed rules in this petition build upon EQC's existing regulatory framework and fall squarely within the agency's statutory authority.

## IV. Conclusion

Mobile source emissions currently present significant threats to human health, particularly in urban areas of the state, and are preventing Oregon from achieving its greenhouse gas reduction targets. The proposed indirect source rule would work to reduce these harmful emissions at locations and facilities that attract large numbers of vehicles or operate polluting engines or equipment. Reducing emissions from indirect sources will improve air quality in urban areas, support Oregon's climate goals, and produce meaningful benefits for Oregonians who are currently exposed to some of the highest concentrations of diesel pollution in the United States. We therefore strongly urge the EQC to exercise its rulemaking authority and adopt the new indirect source rule proposed by this petition.


[^0]:    ${ }^{1}$ For an overview of Oregon's diesel pollution problems and a discussion of available strategies to mitigate the issue, see Amelia Schlusser, et al., Deconstructing Diesel: A Law \& Policy Roadmap for Reducing Diesel Emissions in the Portland Metropolitan Area (2019), https://law.lclark.edu/live/files/28596-deconstructing-diesel-roadmap [hereinafter Deconstructing Diesel Law \& Policy Roadmap].
    ${ }^{2}$ Oregon Global Warming Comm’n, 2018 Biennial Report to the Legislature at 6 (2018), https://static 1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5c2e415d0ebbe8aa6284fdef/1546535266189/20 18-OGWC-Biennial-Report.pdf.
    ${ }^{3}$ Id. at 58.

[^1]:    ${ }^{4}$ Or. Dept. of Envt’l Quality, The Concerns About Diesel Engine Exhaust 1 (2015), http://www.oregon.gov/deq/FilterDocs/DieselEffectsReport.pdf [hereinafter DEQ 2015 DIESEL REPORT].
    ${ }^{5}$ Cal. Office of Envt'l Health Hazard Assessment, Health Effects of Diesel Exhaust (2001), https://oehha.ca.gov/air/health-effects-diesel-exhaust.
    ${ }^{6}$ DEQ 2015 DIESEL REPORT, supra note 4, at 2.
    ${ }^{7}$ Int'l Agency for Research on Cancer, Diesel Engine Exhaust Carcinogenic at 1 (June 12, 2012), https://www.iarc.fr/en/media-centre/pr/2012/pdfs/pr213_E.pdf.
    ${ }^{8}$ DEQ 2015 DIESEL REPORT, supra note 4, at 2.
    ${ }^{9}$ Cal. Environmental Protection Agency Air Resources Bd., Revised Proposed 2016 State Strategy for the State Implementation Plan 15 (Mar. 7, 2017),
    https://ww3.arb.ca.gov/planning/sip/2016sip/rev2016statesip.pdf.
    ${ }^{10}$ DEQ 2015 DIESEL REPORT, supra note 4, at 2, 4.
    ${ }^{11}$ Id. at 3-4; Clean Air Task Force, Diesel Soot Health Impacts: Oregon, http://www.catf.us/diesel/dieselhealth/state.php?site=0\&s=41.
    ${ }^{12}$ DEQ 2015 Diesel Report, supra note 4, at 2; Or. Department of Envt’l Quality, Air Toxics Program, Ambient Benchmark Concentrations (ABC) 4 (Oct. 2010), https://www.oregon.gov/deq/FilterDocs/airtoxabc.pdf.

[^2]:    ${ }^{13}$ Multnomah County, Ensuring Healthy Air 23 (June 2018), http://multnomah.granicus.com/MetaViewer.php?view_id=3\&event_id=1198\&meta_id=125609.
    ${ }^{14}$ Oregon's air toxics ambient concentration benchmarks are based on pollutant concentrations that would result in a risk of $1-\mathrm{in}-1,000,000$ additional cancer diagnoses over a lifetime of exposure. Or. Dept. of Envt'l Quality, Oregon Air Toxics Benchmarks, https://www.oregon.gov/deq/aq/air-toxics/Pages/Benchmarks.aspx (last viewed Oct. 19, 2019).
    ${ }^{15}$ DEQ 2015 DIESEL REPORT, supra note 4, at 3-4.
    ${ }^{16} \mathrm{Id}$. at 6.
    ${ }^{17}$ Id.
    ${ }^{18}$ Or. Rev. Stat. § 468A. 205.
    ${ }^{19}$ Oregon Global Warming Comm'n, 2018 Biennial Report to the Legislature at 76 (2018), https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5c2e415d0ebbe8aa6284fdef/1546535266189/20 18-OGWC-Biennial-Report.pdf; Ted Sickinger, With Emissions on the Rise, Oregon Falls Well Short of Greenhouse Gas Reduction Goals, OregonLive.com, $\mathrm{https}: / / \mathrm{www} . o r e g o n l i v e . c o m / p o l i t i c s / 2018 / 12 /$ with_emissions_on_the_rise_ore.html.
    ${ }^{20}$ U.S. Energy Info. Admin, Oregon: Profile Data, Consumption and Expenditures, Table F16 (2019), https://www.eia.gov/state/data.php?sid=OR\#ConsumptionExpenditures; Sickinger, supra note 19.
    ${ }^{21}$ Sickinger, supra note 19.

[^3]:    ${ }^{22}$ U.S. Envt’l Protection Agency, Report to Congress on Black Carbon 5 (2010), https://www3.epa.gov/airquality/blackcarbon/2012report/fullreport.pdf.
    ${ }^{23} \mathrm{Id}$. at 3-4.
    ${ }^{24}$ DEQ 2015 DIESEL Report, supra note 4, at 6.
    ${ }^{25}$ Deconstructing Diesel Law \& Policy Roadmap, supra note 1, at 10.
    ${ }^{26}$ Multnomah County Health Dept., 2014 Report Card on Racial and Ethnic Disparities 31 (2014), https://multco.us/file/37530/download.

[^4]:    ${ }^{27}$ Or. Dept. of Envt'l Quality, Fact Sheet: Air Quality in Portland, Portland Air Toxics Solutions Report and Recommendations 4 (2012), https://www.oregon.gov/deq/FilterDocs/12aq035patsReport.pdf [hereinafter PATS Fact Sheet].
    ${ }^{28}$ Testing by Portland State University detected localized diesel particulate concentrations that were up to 20 times higher than the state's safety benchmarks. Keely Chalmers, Diesel Pollution Laws Could Tighten Under Proposed Oregon Bill, KGW.com (Apr. 3, 2017), http://www.kgw.com/news/local/diesel-pollution-laws-could-tighten-under-proposed-oregon-bill/428262562.
    ${ }^{29}$ Ensuring Healthy Air: Local Collaborative and Regulatory Options in the Portland Metro Area 16 (2018), http://multnomah.granicus.com/MetaViewer.php?view_id=3\&event_id=1198\&meta_id=125609; Or. Dept. of Envt'1 Quality, Oregon Air Toxics Benchmarks, https://www.oregon.gov/deq/aq/airtoxics/Pages/Benchmarks.aspx.
    ${ }^{30}$ PATS FACT SHEET, supra note 27, at 5 .
    ${ }^{31}$ See Jacqueline S. Zweig, et al., Air Pollution and Academic Performance: Evidence from California Schools (Dec. 2009), http://econweb.umd.edu/~ham/test\%20scores\%20submit.pdf; Nicole Javorsky, Can Traffic Pollution Negatively Affect Student Performance?, PSMAG.COM (Feb. 5, 2019), https://psmag.com/education/can-traffic-pollution-affect-student-performance. At three of Portland's under-performing public high schools, David Douglas, Roosevelt, and Jefferson High Schools, the student bodies are predominantly low-income and non-white, and estimated diesel $\mathrm{PM}_{2.5}$ concentrations are higher than those in $80 \%$ to $90 \%$ of the United States.
    ${ }^{32}$ Portland Air Toxics Solutions Advisory Committee, Pats 2017 Pollutant Modeling Summary 6 (2011), https://www.oregon.gov/deq/FilterDocs/15pollutantsAboveSummary.pdf [hereinafter PATS PoLLuTANT Modeling Summary].

[^5]:    ${ }^{33}$ U.S. Envt'l Protection Agency, Air Emissions Inventories: 2014 National Emissions Inventory (NEI) Data, https://www.epa.gov/air-emissions-inventories/2014-national-emissions-inventory-nei-data.
    ${ }^{34}$ PATS Pollutant Modeling Summary, supra note 32, at 6 .
    ${ }^{35}$ PATS measured an average on-road diesel particulate matter concentration of $1.117 \mu \mathrm{~g} / \mathrm{m}^{3}$, which was 11.17 times Oregon's ambient benchmark concentration of $0.1 \mu \mathrm{~g} / \mathrm{m}^{3}$. Or. Dept. OF EnVT'L Quality, Portland Air Toxics Solutions Committee Report and Recommendations ch. 6, tbl. 13, p. 4 (2012), https://www.oregon.gov/deq/aq/air-toxics/Pages/PATS.aspx [hereinafter PATS REPORT].
    ${ }^{36}$ Id.
    ${ }^{37}$ PATS POLLUTANT MODELING Summary, supra note 32 , at 6 .
    ${ }^{38}$ PATS measured an average construction diesel particulate matter concentration of $1.2209 \mu \mathrm{~g} / \mathrm{m}^{3}$, which was 12.21 times Oregon's ambient benchmark concentration of $0.1 \mu \mathrm{~g} / \mathrm{m}^{3}$. PATS REPORT, supra note 35 , ch. 6 , tbl. 14, p. 5.
    ${ }^{39}$ Id.
    ${ }^{40}$ The PATS pollutant modeling measured an average marine diesel particulate matter concentration of 0.8191 $\mu \mathrm{g} / \mathrm{m}^{3}$, which was 8.19 times Oregon's ambient benchmark concentration of $0.1 \mu \mathrm{~g} / \mathrm{m}^{3}$. Id. at ch. 6, tbl. 16, p. 7. The study measured an average railroad diesel particulate matter concentration of $0.9545 \mu \mathrm{~g} / \mathrm{m}^{3}$, which was 9.54 times Oregon's ambient benchmark concentration of $0.1 \mu \mathrm{~g} / \mathrm{m}^{3}$. Id. at ch. 6, tbl. 15, p. 6 .
    ${ }^{41}$ Id.

[^6]:    ${ }^{42} 42$ U.S.C. § 7410(a)(5).
    ${ }^{43}$ The CAA defines "indirect source" as "a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution." Id. § 7410(a)(5)(C).
    ${ }^{44}$ The U.S. Court of Appeals for the Ninth Circuit held that indirect source rules are not preempted emissions standards under the Clean Air Act because they target aggregate mobile source emissions associated with a facility, rather than regulate direct emissions from individual mobile sources. Nat'l Ass'n of Homebuilders v. San Joaquin Valley Unified Air Pollution Control Dist., 627 F.3d 730 (9th Cir. 2010).
    ${ }^{45}$ Or. Admin. R. § 340-254-0040(1).
    ${ }^{46}$ See OR. Admin. R. §§ 340-254-0060, 340-254-0070.

[^7]:    ${ }^{47}$ OR. Admin. R. §§ 340-254-0060(2)(g), 340-254-0070(5).
    ${ }^{48}$ Or. ADMIN. R. § 340-254-0070(4)(a).
    ${ }^{49}$ San Joaquin Valley Air Pollution Control Bd., District Rule 9510 (Dec. 15, 2005) (amended Dec. 21, 2017;
    effective Mar. 21, 2018), https://www.valleyair.org/rules/currntrules/r9510-a.pdf.
    ${ }^{50}$ Id. at 1, 11-12.
    ${ }^{51} I d$.
    ${ }^{52}$ Id. at 13.

[^8]:    ${ }^{53} I d$. at 11-12.
    ${ }^{54}$ Id. at 13-16.
    ${ }^{55}$ San Joaquin Valley Air Pollution Control Dist., 2018 Annual Report: Indirect Source Review PROGRAM at 4 (2018), https://www.valleyair.org/ISR/Documents/2018-Annual-Report.pdf.
    ${ }^{56} I d$.

[^9]:    ${ }^{57} 42$ U.S.C. § 7410(a)(5).
    ${ }^{58} 42$ U.S.C. § 7410(a)(5)(C).
    ${ }^{59} 42$ U.S.C. § 7543; see Nat'l Ass'n of Home Builders v. San Joaquin Valley Unified Pollution Control District, 627 F. 3d 730 ( ${ }^{\text {th }}$ Cir. 2009).
    ${ }^{60}$ See Trump Hotels \& Casino Resorts, Inc. v. Mirage Resorts, 963 F. Supp. 395, 407 (D.N.J. 1997), aff'd, 140 F.3d 478 (3d Cir. 1998).
    ${ }^{61}$ Or. Rev. Stat. § 468A. 025.
    ${ }^{62}$ Or. Rev. Stat. § 468A. 040.
    ${ }^{63}$ OR. Admin. R. § 340-254-0010.

