OFFICE OF THE SECRETARY OF STATE
SHEMIA FAGAN
SECRETARY OF STATE

CHERYL MYERS
DEPUTY SECRETARY OF STATE

ARCHIVES DIVISION
STEPHANIE CLARK
DIRECTOR

800 SUMMER STREET NE
SALEM, OR 97310
503-373-0701

PERMANENT ADMINISTRATIVE ORDER

DEQ 18-2021

CHAPTER 340
DEPARTMENT OF ENVIRONMENTAL QUALITY

FILED
11/17/2021 5:22 PM
ARCHIVES DIVISION
SECRETARY OF STATE
& LEGISLATIVE COUNSEL

FILING CAPTION: Cleaner Air Oregon Air Toxics Alignment and Updates Rulemaking

EFFECTIVE DATE: 11/17/2021

AGENCY APPROVED DATE: 11/17/2021

CONTACT: Emil Hnidey
503-229-5946
hnidey.emil@deq.state.or.us

700 NE Multnomah St.
Suite 600
Portland,OR 97232

Filed By:
Emil Hnidey
Rules Coordinator

RULES:
340-200-0020, 340-216-0090, 340-218-0020, 340-218-0110, 340-245-0005, 340-245-0010, 340-245-0020, 340-245-0022, 340-245-0030, 340-245-0040, 340-245-0050, 340-245-0060, 340-245-0100, 340-245-0110, 340-245-0120, 340-245-0130, 340-245-0140, 340-245-0150, 340-245-0200, 340-245-0210, 340-245-0220, 340-245-0230, 340-245-0300, 340-245-0310, 340-245-0320, 340-245-0400, 340-245-8010, 340-245-8020, 340-245-8030, 340-245-8040, 340-245-8050, 340-246-0010, 340-246-0030, 340-246-0050, 340-246-0070, 340-246-0090, 340-246-0110, 340-246-0130, 340-246-0150, 340-246-0170, 340-246-0190, 340-246-0210, 340-246-0230, 340-247-0010, 340-247-0020, 340-247-0030, 340-247-0040, 340-247-0050, 340-247-8010

AMEND: 340-200-0020

RULE TITLE: General Air Quality Definitions

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating definition under (134)(d) and removing reference to division 208.

RULE TEXT:
As used in OAR 340 divisions 200 through 268, unless specifically defined otherwise:
(1) "Act" or "FCAA" means the Federal Clean Air Act, 42 U.S.C.A. § 7401 to 7671q.
(2) "Activity" means any process, operation, action, or reaction (e.g., chemical) at a source that emits a regulated pollutant.
(3) "Actual emissions" means the mass emissions of a regulated pollutant from an emissions source during a specified time period as set forth in OAR 340 divisions 214, 220 and 222.
(4) "Adjacent", as used in the definitions of major source and source and in OAR 340-216-0070, means interdependent facilities that are nearby to each other.
(5) "Affected source" means a source that includes one or more affected units that are subject to emission reduction requirements or limitations under Title IV of the FCAA.
(6) "Affected states" means all states:
(a) Whose air quality may be affected by a proposed permit, permit modification, or permit renewal and that are contiguous to Oregon; or
(b) That are within 50 miles of the permitted source.

(7) "Aggregate insignificant emissions" means the annual actual emissions of any regulated pollutant from one or more designated activities at a source that are less than or equal to the lowest applicable level specified in this section. The total emissions from each designated activity and the aggregate emissions from all designated activities must be less than or equal to the lowest applicable level specified:
(a) One ton for total reduced sulfur, hydrogen sulfide, sulfuric acid mist, any Class I or II substance subject to a standard promulgated under or established by Title VI of the FCAA, and each criteria pollutant, except lead;
(b) 120 pounds for lead;
(c) 600 pounds for fluorides;
(d) 500 pounds for PM10 in a PM10 nonattainment area;
(e) 500 pounds for direct PM2.5 in a PM2.5 nonattainment area;
(f) The lesser of the amount established in 40 C.F.R. 68.130 or 1,000 pounds;
(g) An aggregate of 5,000 pounds for all hazardous air pollutants;
(h) 2,756 tons CO2e for greenhouse gases.
(8) "Air contaminant" means a dust, fume, gas, mist, odor, smoke, vapor, pollen, soot, carbon, acid, particulate matter, regulated pollutant, or any combination thereof.
(9) "Air Contaminant Discharge Permit" or "ACDP" means written authorization issued, renewed, amended, or revised by DEQ, under OAR 340 division 216.
(10) "Alternative method" means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to DEQ's satisfaction to, in specific cases, produce results adequate for determination of compliance. The alternative method must comply with the intent of the rules, is at least equivalent in objectivity and reliability to the uniform recognized procedures, and is demonstrated to be reproducible, selective, sensitive, accurate, and applicable to the program. An alternative method used to meet an applicable federal requirement for which a reference method is specified must be approved by EPA unless EPA has delegated authority for the approval to DEQ.
(11) "Ambient air" means that portion of the atmosphere, external to buildings, to which the general public has access.
(12) "Applicable requirement" means all of the following as they apply to emissions units in an Oregon Title V Operating Permit program source or ACDP program source, including requirements that have been promulgated or approved by the EPA through rule making at the time of issuance but have future-effective compliance dates:
(a) Any standard or other requirement provided for in the applicable implementation plan approved or promulgated by the EPA through rulemaking under Title I of the FCAA that implements the relevant requirements of the FCAA, including any revisions to that plan promulgated in 40 C.F.R. part 52;
(b) Any standard or other requirement adopted under OAR 340-200-0040 of the State of Oregon Clean Air Act Implementation Plan that is more stringent than the federal standard or requirement which has not yet been approved by the EPA, and other state-only enforceable air pollution control requirements;
(c) Any term or condition in an ACDP, OAR 340 division 216, including any term or condition of any preconstruction permits issued under OAR 340 division 224, New Source Review, until or unless DEQ revokes or modifies the term or condition by a permit modification;
(d) Any term or condition in a Notice of Construction and Approval of Plans, OAR 340-210-0205 through 340-210-0240, until or unless DEQ revokes or modifies the term or condition by a Notice of Construction and Approval of Plans or a permit modification;
(e) Any term or condition in a Notice of Approval, OAR 340-218-0190, issued before July 1, 2001, until or unless DEQ revokes or modifies the term or condition by a Notice of Approval or a permit modification;
(f) Any term or condition of a PSD permit issued by the EPA until or unless the EPA revokes or modifies the term or condition by a permit modification;
(g) Any standard or other requirement under section 111 of the FCAA, including section 111(d);
(h) Any standard or other requirement under section 112 of the FCAA, including any requirement concerning accident prevention under section 112(r)(7) of the FCAA;

(i) Any standard or other requirement of the acid rain program under Title IV of the FCAA or the regulations promulgated thereunder;
(j) Any requirements established under section 504(b) or section 114(a)(3) of the FCAA;
(k) Any standard or other requirement under section 126(a)(1) and(c) of the FCAA;
(l) Any standard or other requirement governing solid waste incineration, under section 129 of the FCAA;
(m) Any standard or other requirement for consumer and commercial products, under section 183(e) of the FCAA;
(n) Any standard or other requirement for tank vessels, under section 183(f) of the FCAA;
(o) Any standard or other requirement of the program to control air pollution from outer continental shelf sources, under section 328 of the FCAA;
(p) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the FCAA, unless the Administrator has determined that such requirements need not be contained in an Oregon Title V Operating Permit; and
(q) Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the FCAA, but only as it would apply to temporary sources permitted under section 504(e) of the FCAA.
(13) “Attainment area” or “unclassified area” means an area that has not otherwise been designated by EPA as nonattainment with ambient air quality standards for a particular regulated pollutant. Attainment areas or unclassified areas may also be referred to as sustainment or maintenance areas as designated in OAR 340 division 204. Any particular location may be part of an attainment area or unclassified area for one regulated pollutant while also being in a different type of designated area for another regulated pollutant.
(14) “Attainment pollutant” means a pollutant for which an area is designated an attainment or unclassified area.
(15) "Baseline emission rate" means the actual emission rate during a baseline period as determined under OAR 340 division 222.
(16) "Baseline period" means the period used to determine the baseline emission rate for each regulated pollutant under OAR 340 division 222.
(17) "Best Available Control Technology" or "BACT" means an emission limitation, including, but not limited to, a visible emission standard, based on the maximum degree of reduction of each air contaminant subject to regulation under the FCAA which would be emitted from any proposed major source or major modification which, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such air contaminant. In no event may the application of BACT result in emissions of any air contaminant that would exceed the emissions allowed by any applicable new source performance standard or any standard for hazardous air pollutant. If an emission limitation is not feasible, a design, equipment, work practice, or operational standard, or combination thereof, may be required. Such standard must, to the degree possible, set forth the emission reduction achievable and provide for compliance by prescribing appropriate permit conditions.
(18) "Biomass" means non-fossilized and biodegradable organic material originating from plants, animals, and microorganisms, including products, byproducts, residues and waste from agriculture, forestry, and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic matter.
(19) "Capacity" means the maximum regulated pollutant emissions from a stationary source under its physical and operational design.
(20) “Capture efficiency” means the amount of regulated pollutant collected and routed to an air pollution control device divided by the amount of total emissions generated by the process being controlled.
(21) "Capture system" means the equipment, including but not limited to hoods, ducts, fans, and booths, used to contain, capture and transport a regulated pollutant to a control device.
(22) "Carbon dioxide equivalent" or "CO2e" means an amount of a greenhouse gas or gases expressed as the equivalent amount of carbon dioxide, and is 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.
(23) "Categorically insignificant activity" means any of the following listed regulated pollutant emitting activities principally supporting the source or the major industrial group. Categorically insignificant activities must comply with all applicable requirements.
(a) Constituents of a chemical mixture present at less than 1 percent by weight of any chemical or compound regulated under divisions 200 through 268 excluding divisions 248 and 262 of this chapter, or less than 0.1 percent by weight of any carcinogen listed in the U.S. Department of Health and Human Service's Annual Report on Carcinogens when usage of the chemical mixture is less than 100,000 pounds/year;
(b) Evaporative and tailpipe emissions from on-site motor vehicle operation;
(c) Distillate oil, kerosene, gasoline, natural gas or propane burning equipment, provided the aggregate expected actual emissions of the equipment identified as categorically insignificant do not exceed the de minimis level for any regulated pollutant, based on the expected maximum annual operation of the equipment. If a source's expected emissions from all such equipment exceed the de minimis levels, then the source may identify a subgroup of such equipment as categorically insignificant with the remainder not categorically insignificant. The following equipment may never be included as categorically insignificant:
(A) Any individual distillate oil, kerosene or gasoline burning equipment with a rating greater than 0.4 million Btu/hour;
(B) Any individual natural gas or propane burning equipment with a rating greater than 2.0 million Btu/hour.
(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;
(e) Office activities;
(f) Food service activities;
(g) Janitorial activities;
(h) Personal care activities;
(i) Groundskeeping activities including, but not limited to building painting and road and parking lot maintenance;
(j) On-site laundry activities;
(k) On-site recreation facilities;
(l) Instrument calibration;
(m) Maintenance and repair shop;
(n) Automotive repair shops or storage garages;
(o) Air cooling or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment;
(p) Refrigeration systems with less than 50 pounds of charge of ozone depleting substances regulated under Title VI, including pressure tanks used in refrigeration systems but excluding any combustion equipment associated with such systems;
(q) Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including associated vacuum producing devices but excluding research and development facilities;
(r) Temporary construction activities;
(s) Warehouse activities;
(t) Accidental fires;
(u) Air vents from air compressors;
(v) Air purification systems;
(w) Continuous emissions monitoring vent lines;
(x) Demineralized water tanks;
(y) Pre-treatment of municipal water, including use of deionized water purification systems;

(z) Electrical charging stations;
(aa) Fire brigade training;
(bb) Instrument air dryers and distribution;
(cc) Process raw water filtration systems;
(dd) Pharmaceutical packaging;
(ee) Fire suppression;
(ff) Blueprint making;
(gg) Routine maintenance, repair, and replacement such as anticipated activities most often associated with and performed during regularly scheduled equipment outages to maintain a plant and its equipment in good operating condition, including but not limited to steam cleaning, abrasive use, and woodworking;
(hh) Electric motors;
(ii) Storage tanks, reservoirs, transfer and lubricating equipment used for ASTM grade distillate or residual fuels, lubricants, and hydraulic fluids;
(jj) On-site storage tanks not subject to any New Source Performance Standards (NSPS), including underground storage tanks (UST), storing gasoline or diesel used exclusively for fueling of the facility's fleet of vehicles;
(kk) Natural gas, propane, and liquefied petroleum gas (LPG) storage tanks and transfer equipment;
(ll) Pressurized tanks containing gaseous compounds;
(mm) Vacuum sheet stacker vents;
(nn) Emissions from wastewater discharges to publicly owned treatment works (POTW) provided the source is authorized to discharge to the POTW, not including on-site wastewater treatment and/or holding facilities;
(oo) Log ponds;
(pp) Stormwater settling basins;
(qq) Fire suppression and training;
(rr) Paved roads and paved parking lots within an urban growth boundary;
(ss) Hazardous air pollutant emissions in fugitive dust from paved and unpaved roads except for those sources that have processes or activities that contribute to the deposition and entrainment of hazardous air pollutants from surface soils;
(tt) Health, safety, and emergency response activities;
(uu) 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, provided that the aggregate horsepower rating of all stationary emergency generator and pump engines is not more than 3,000 horsepower. If the aggregate horsepower rating of all stationary emergency generator and pump engines is more than 3,000 horsepower, then no emergency generators and pumps at the source may be considered categorically insignificant;
(vv) Non-contact steam vents and leaks and safety and relief valves for boiler steam distribution systems;
(ww) Non-contact steam condensate flash tanks;
(xx) Non-contact steam vents on condensate receivers, deaerators and similar equipment;
(yy) Boiler blowdown tanks;
(zz) Industrial cooling towers that do not use chromium-based water treatment chemicals;
(aaa) Ash piles maintained in a wetted condition and associated handling systems and activities;
(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;
(ccc) Combustion source flame safety purging on startup;
(ddd) Broke beaters, pulp and repulping tanks, stock chests and pulp handling equipment, excluding thickening

equipment and repulpers;
(eee) Stock cleaning and pressurized pulp washing, excluding open stock washing systems; and
(fff) White water storage tanks.
(24) "Certifying individual" means the responsible person or official authorized by the owner or operator of a source who certifies the accuracy of the emission statement.
(25) "Class I area" or “PSD Class I area” means any Federal, State or Indian reservation land which is classified or reclassified as a Class I area under OAR 340-204-0050 and 340-204-0060.
(26) “Class II area” or “PSD Class II area’ means any land which is classified or reclassified as a Class II area under OAR 340-204-0050 and 340-204-0060.
(27) “Class III area” or “PSD Class III area’ means any land which is reclassified as a Class III area under OAR 340-204-0060.
(28) "Commence" or "commencement" means that the owner or operator has obtained all necessary preconstruction approvals required by the FCAA and either has:
(a) Begun, or caused to begin, a continuous program of actual on-site construction of the source to be completed in a reasonable time; or
(b) Entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the source to be completed in a reasonable time.
(29) "Commission" or "EQC" means Environmental Quality Commission.
(30) "Constant process rate" means the average variation in process rate for the calendar year is not greater than plus or minus ten percent of the average process rate.
(31) "Construction":
(a) Except as provided in subsection (b) means any physical change including, but not limited to, fabrication, erection, installation, demolition, or modification of a source or part of a source;
(b) As used in OAR 340 division 224 means any physical change including, but not limited to, fabrication, erection, installation, demolition, or modification of an emissions unit, or change in the method of operation of a source which would result in a change in actual emissions.
(32) "Continuous compliance determination method" means a method, specified by the applicable standard or an applicable permit condition, which:
(a) Is used to determine compliance with an emission limitation or standard on a continuous basis, consistent with the averaging period established for the emission limitation or standard; and
(b) Provides data either in units of the standard or correlated directly with the compliance limit.
(33) "Continuous monitoring systems" means sampling and analysis, in a timed sequence, using techniques which 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 system (COMS) and continuous parameter monitoring systems.
(34) “Control device” means equipment, other than inherent process equipment that is used to destroy or remove a regulated pollutant prior to discharge to the atmosphere. The types of equipment that may commonly be used as control devices include, but are not limited to, fabric filters, mechanical collectors, electrostatic precipitators, inertial separators, afterburners, thermal or catalytic incinerators, adsorption devices, such as carbon beds, condensers, scrubbers, such as wet collection and gas absorption devices, selective catalytic or non-catalytic reduction systems, flue gas recirculation systems, spray dryers, spray towers, mist eliminators, acid plants, sulfur recovery plants, injection systems, such as water, steam, ammonia, sorbent or limestone injection, and combustion devices independent of the particular process being conducted at an emissions unit, e.g., the destruction of emissions achieved by venting process emission streams to flares, boilers or process heaters. For purposes of OAR 340-212-0200 through 340-212-0280, a control device does not include passive control measures that act to prevent regulated pollutants from forming, such as the use of seals, lids, or roofs to prevent the release of regulated pollutants, use of low-polluting fuel or feedstocks, or

the use of combustion or other process design features or characteristics. If an applicable requirement establishes that particular equipment which otherwise meets this definition of a control device does not constitute a control device as applied to a particular regulated pollutant-specific emissions unit, then that definition will be binding for purposes of OAR 340-212-0200 through 340-212-0280.
(35) “Control efficiency” means the product of the capture and removal efficiencies.
(36) "Criteria pollutant" means any of the following regulated pollutants: nitrogen oxides, volatile organic compounds, particulate matter, PM10, PM2.5, sulfur dioxide, carbon monoxide, and lead.
(37) "Data" means the results of any type of monitoring or method, including the results of instrumental or non-instrumental monitoring, emission calculations, manual sampling procedures, recordkeeping procedures, or any other form of information collection procedure used in connection with any type of monitoring or method.
(38) “Day” means a 24-hour period beginning at 12:00 a.m. midnight or a 24-hour period as specified in a permit.
(39) "De minimis emission level" means the level for the regulated pollutants listed below:
(a) Greenhouse Gases (CO2e) = 2,756 tons per year.
(b) CO = 1 ton per year.
(c) NOx = 1 ton per year.
(d) SO2 = 1 ton per year.
(e) VOC = 1 ton per year.
(f) PM = 1 ton per year.
(g) PM10 (except Medford AQMA) = 1 ton per year.
(h) PM10 (Medford AQMA) = 0.5 ton per year and 5.0 pounds/day.
(i) Direct PM2.5 = 1 ton per year.
(j) Lead = 0.1 ton per year.
(k) Fluorides = 0.3 ton per year.
(l) Sulfuric Acid Mist = 0.7 ton per year.
(m) Hydrogen Sulfide = 1 ton per year.
(n) Total Reduced Sulfur (including hydrogen sulfide) = 1 ton per year.
(o) Reduced Sulfur = 1 ton per year.
(p) Municipal waste combustor organics (dioxin and furans) = 0.0000005 ton per year.
(q) Municipal waste combustor metals = 1 ton per year.
(r) Municipal waste combustor acid gases = 1 ton per year.
(s) Municipal solid waste landfill gases (measured as nonmethane organic compounds) = 1 ton per year
(t) Single HAP = 1 ton per year
(u) Combined HAP (aggregate) = 1 ton per year
(40) "Department" or “DEQ”:
(a) Means Department of Environmental Quality; except
(b) As used in OAR 340 divisions 218 and 220 means Department of Environmental Quality, or in the case of Lane County, LRAPA.
(41) “DEQ method [#]” means the sampling method and protocols for measuring a regulated pollutant as described in the DEQ Source Sampling Manual, found in OAR 340-200-0035.
(42) “Designated area” means an area that has been designated as an attainment, unclassified, sustainment, nonattainment, reattainment, or maintenance area under OAR 340 division 204 or applicable provisions of the FCAA.
(43) “Destruction efficiency” means removal efficiency.
(44) "Device" means any machine, equipment, raw material, product, or byproduct at a source that produces or emits a regulated pollutant.
(45) "Direct PM2.5" has the meaning provided in the definition of PM2.5.
(46) "Director" means the Director of DEQ or the Director's designee.
(47) "Draft permit" means the version of an Oregon Title V Operating Permit for which DEQ or LRAPA offers public

participation under OAR 340-218-0210 or the EPA and affected State review under 340-218-0230.
(48) "Dry standard cubic foot" means the amount of gas that would occupy a volume of one cubic foot, if the gas were free of uncombined water at standard conditions.
(49) "Effective date of the program" means the date that the EPA approves the Oregon Title V Operating Permit program submitted by DEQ on a full or interim basis. In case of a partial approval, the "effective date of the program" for each portion of the program is the date of the EPA approval of that portion.
(50) "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency does not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
(51) "Emission" means a release into the atmosphere of any regulated pollutant or any air contaminant.
(52) "Emission estimate adjustment factor" or "EEAF" means an adjustment applied to an emission factor to account for the relative inaccuracy of the emission factor.
(53) "Emission factor" means an estimate of the rate at which a regulated pollutant is released into the atmosphere, as the result of some activity, divided by the rate of that activity (e.g., production or process rate).
(54) "Emission limitation" or "Emission standard" or “Emission limitation or standard” means:
(a) Except as provided in subsection (b), a requirement established by a state, local government, or the EPA which limits the quantity, rate, or concentration of emissions of regulated pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operation or maintenance procedures for a source to assure continuous emission reduction.
(b) As used in OAR 340-212-0200 through 340-212-0280, any applicable requirement that constitutes an emission limitation, emission standard, standard of performance or means of emission limitation as defined under the FCAA. An emission limitation or standard may be expressed in terms of the pollutant, expressed either as a specific quantity, rate or concentration of emissions, e.g., pounds of SO2 per hour, pounds of SO2 per million British thermal units of fuel input, kilograms of VOC per liter of applied coating solids, or parts per million by volume of SO2, or as the relationship of uncontrolled to controlled emissions, e.g., percentage capture and destruction efficiency of VOC or percentage reduction of SO2. An emission limitation or standard may also be expressed either as a work practice, process or control device parameter, or other form of specific design, equipment, operational, or operation and maintenance requirement. For purposes of 340-212-0200 through 340-212-0280, an emission limitation or standard does not include general operation requirements that an owner or operator may be required to meet, such as requirements to obtain a permit, operate and maintain sources using good air pollution control practices, develop and maintain a malfunction abatement plan, keep records, submit reports, or conduct monitoring.
(55) "Emission Reduction credit banking" means to presently reserve, subject to requirements of OAR 340 division 268, Emission Reduction Credits, emission reductions for use by the reserver or assignee for future compliance with air pollution reduction requirements.
(56) "Emission reporting form" means a paper or electronic form developed by DEQ that must be completed by the permittee to report calculated emissions, actual emissions, or permitted emissions for interim emission fee assessment purposes.
(57) "Emissions unit" means any part or activity of a source that emits or has the potential to emit any regulated pollutant.
(a) A part of a source is any machine, equipment, raw material, product, or byproduct that produces or emits regulated pollutants. An activity is any process, operation, action, or reaction, e.g., chemical, at a stationary source that emits regulated pollutants. Except as described in subsection (d), parts and activities may be grouped for purposes of defining an emissions unit if the following conditions are met:
(A) The group used to define the emissions unit may not include discrete parts or activities to which a distinct emissions

standard applies or for which different compliance demonstration requirements apply; and
(B) The emissions from the emissions unit are quantifiable.
(b) Emissions units may be defined on a regulated pollutant by regulated pollutant basis where applicable.
(c) The term emissions unit is not meant to alter or affect the definition of the term "unit" under Title IV of the FCAA.
(d) Parts and activities cannot be grouped for determining emissions increases from an emissions unit under OAR 340 divisions 210 and 224, or for determining the applicability of any New Source Performance Standard.
(58) "EPA" or "Administrator" means the Administrator of the United States Environmental Protection Agency or the Administrator's designee.
(59) "EPA Method 9" means the method for Visual Determination of the Opacity of Emissions From Stationary Sources described in 40 C.F.R. part 60, Appendix A–4.
(60) "Equivalent method" means any method of sampling and analyzing for a regulated pollutant that has been demonstrated to DEQ's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions. An equivalent method used to meet an applicable federal requirement for which a reference method is specified must be approved by EPA unless EPA has delegated authority for the approval to DEQ.
(61) "Event" means excess emissions that arise from the same condition and occur during a single calendar day or continue into subsequent calendar days.
(62) "Exceedance" means a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions, or opacity, are greater than the applicable emission limitation or standard, or less than the applicable standard in the case of a percent reduction requirement, consistent with any averaging period specified for averaging the results of the monitoring.
(63) "Excess emissions" means emissions in excess of a permit or permit attachment limit, in excess of a risk limit under OAR chapter 340, division 245, or in violation of any applicable air quality rule.
(64) "Excursion" means a departure from an indicator range established for monitoring under OAR 340-212-0200 through 340-212-0280 and 340-218-0050(3)(a), consistent with any averaging period specified for averaging the results of the monitoring.
(65) "Federal Land Manager" means with respect to any lands in the United States, the Secretary of the federal department with authority over such lands.
(66) "Federal Major Source" means any source listed in subsections (a) or (d) below:
(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).
(b) Calculations for determining a source's potential to emit for purposes of subsections (a) and (d) must include the following:
(A) Fugitive emissions and insignificant activity emissions; and
(B) Increases or decreases due to a new or modified source.
(c) Source categories:
(A) Fossil fuel-fired steam electric plants of more than 250 million BTU/hour heat input;
(B) Coal cleaning plants with thermal dryers;
(C) Kraft pulp mills;
(D) Portland cement plants;
(E) Primary zinc smelters;
(F) Iron and steel mill plants;
(G) Primary aluminum ore reduction plants;
(H) Primary copper smelters;
(I) Municipal incinerators capable of charging more than 50 tons of refuse per day;

(J) Hydrofluoric acid plants;
(K) Sulfuric acid plants;
(L) Nitric acid plants;
(M) Petroleum refineries;
(N) Lime plants;
(O) Phosphate rock processing plants;
(P) Coke oven batteries;
(Q) Sulfur recovery plants;
(R) Carbon black plants, furnace process;
(S) Primary lead smelters;
(T) Fuel conversion plants;
(U) Sintering plants;
(V) Secondary metal production plants;
(W) Chemical process plants, excluding ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;
(X) Fossil fuel fired boilers, or combinations thereof, totaling more than 250 million BTU per hour heat input;
(Y) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
(Z) Taconite ore processing plants;
(AA) Glass fiber processing plants;
(BB) Charcoal production plants.
(d) A major stationary source as defined in part D of Title I of the FCAA, including:
(A) For ozone nonattainment areas, sources with the potential to emit 100 tons per year or more of VOCs or oxides of nitrogen in areas classified as "marginal" or "moderate," 50 tons per year or more in areas classified as "serious," 25 tons per year or more in areas classified as "severe," and 10 tons per year or more in areas classified as "extreme"; except that the references in this paragraph to 100, 50, 25, and 10 tons per year of nitrogen oxides do not apply with respect to any source for which the Administrator has made a finding, under section 182(f)(1) or (2) of the FCAA, that requirements under section 182(f) of the FCAA do not apply;
(B) For ozone transport regions established under section 184 of the FCAA, sources with the potential to emit 50 tons per year or more of VOCs;
(C) For carbon monoxide nonattainment areas that are classified as "serious" and in which stationary sources contribute significantly to carbon monoxide levels as determined under rules issued by the Administrator, sources with the potential to emit 50 tons per year or more of carbon monoxide.
(D) For PM10 nonattainment areas classified as "serious," sources with the potential to emit 70 tons per year or more of PM10.
(67) "Final permit" means the version of an Oregon Title V Operating Permit issued by DEQ or LRAPA that has completed all review procedures required by OAR 340-218-0120 through 340-218-0240.
(68) "Form" means a paper or electronic form developed by DEQ.
(69) “Fuel burning equipment” means equipment, other than internal combustion engines, the principal purpose of which is to produce heat or power by indirect heat transfer.
(70) "Fugitive emissions":
(a) Except as used in subsection (b), means emissions of any air contaminant which escape to the atmosphere from any point or area that is not identifiable as a stack, vent, duct, or equivalent opening.
(b) As used to define a major Oregon Title V Operating Permit program source, means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
(71) "General permit":
(a) Except as provided in subsection (b), means an Oregon Air Contaminant Discharge Permit established under OAR 340-216-0060;

(b) As used in OAR 340 division 218 means an Oregon Title V Operating Permit established under OAR 340-218-0090.
(72) "Generic PSEL" means the levels for the regulated pollutants listed below:
(a) Greenhouse Gases (CO2e) = 74,000 tons per year
(b) CO = 99 tons per year
(c) NOx = 39 tons per year
(d) SO2 = 39 tons per year
(e) VOC = 39 tons per year
(f) PM = 24 tons per year
(g) PM10 (except Medford AQMA) = 14 tons per year
(h) PM10 (Medford AQMA) = 4.5 tons per year and 49 pounds per day
(i) PM2.5 = 9 tons per year
(j) Lead = 0.5 tons per year
(k) Fluorides = 2 tons per year
(l) Sulfuric Acid Mist = 6 tons per year
(m) Hydrogen Sulfide = 9 tons per year
(n) Total Reduced Sulfur (including hydrogen sulfide) = 9 tons per year
(o) Reduced Sulfur = 9 tons per year
(p) Municipal waste combustor organics (Dioxin and furans) = 0.0000030 tons per year
(q) Municipal waste combustor metals = 14 tons per year
(r) Municipal waste combustor acid gases = 39 tons per year
(s) Municipal solid waste landfill gases (measured as nonmethane organic compounds) = 49 tons per year
(t) Single HAP = 9 tons per year
(u) Combined HAPs (aggregate) = 24 tons per year
(73)(a) "Greenhouse gases" or "GHGs" means the aggregate group of the following six gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Each gas is also individually a greenhouse gas.
(b) The definition of greenhouse gases in subsection (a) of this section does not include, for purposes of division 216, 218, and 224, carbon dioxide emissions from the combustion or decomposition of biomass except to the extent required by federal law.
(74) "Growth allowance" means an allocation of some part of an airshed's capacity to accommodate future proposed sources and modifications of sources.
(75) "Hardboard" means a flat panel made from wood that has been reduced to basic wood fibers and bonded by adhesive properties under pressure.
(76) “Hazardous Air Pollutant” or “HAP” means an air contaminant listed by the EPA under section 112(b) of the FCAA or determined by the EQC to cause, or reasonably be anticipated to cause, adverse effects to human health or the environment.
(77) "Immediately" means as soon as possible but in no case more than one hour after a source knew or should have known of an excess emission period.
(78) "Indian governing body" means the governing body of any tribe, band, or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self-government.
(79) "Indian reservation" means any federally recognized reservation established by Treaty, Agreement, Executive Order, or Act of Congress.
(80) "Inherent process equipment" means equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations. Equipment that must be operated at an efficiency higher than that achieved during normal process operations in order to comply with the applicable emission limitation or standard is not inherent process equipment. For the purposes of OAR 340-212-0200 through 340-212-0280, inherent process

equipment is not considered a control device.
(81) "Insignificant activity" means an activity or emission that DEQ has designated as categorically insignificant, or that meets the criteria of aggregate insignificant emissions.
(82) "Insignificant change" means an off-permit change defined under OAR 340-218-0140(2)(a) to either a significant or an insignificant activity which:
(a) Does not result in a re-designation from an insignificant to a significant activity;
(b) Does not invoke an applicable requirement not included in the permit; and
(c) Does not result in emission of regulated pollutants not regulated by the source's permit.
(83) “Internal combustion engine” means stationary gas turbines and reciprocating internal combustion engines.
(84) "Late payment" means a fee payment which is postmarked after the due date.
(85) "Liquefied petroleum gas" has the meaning given by the American Society for Testing and Materials in ASTM D1835-82, "Standard Specification for Liquid Petroleum Gases."
(86) "Lowest Achievable Emission Rate" or "LAER" means that rate of emissions which reflects: the most stringent emission limitation which is contained in the implementation plan of any state for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable; or the most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent. The application of this term cannot permit a proposed new or modified source to emit any air contaminant in excess of the amount allowable under applicable New Source Performance Standards (NSPS) or standards for hazardous air pollutants.
(87) "Maintenance area" means any area that was formerly nonattainment for a criteria pollutant but has since met the ambient air quality standard, and EPA has approved a maintenance plan to comply with the standards under 40 C.F.R. 51.110. Maintenance areas are designated by the EQC according to division 204.
(88) "Maintenance pollutant" means a regulated pollutant for which a maintenance area was formerly designated a nonattainment area.
(89) "Major Modification" means any physical change or change in the method of operation of a source that results in satisfying the requirements of OAR 340-224-0025.
(90) “Major New Source Review” or “Major NSR” means the new source review process and requirements under OAR 340-224-0010 through 340-224-0070 and 340-224-0500 through 340-224-0540 based on the location and regulated pollutants emitted.
(91) "Major source":
(a) Except as provided in subsection (b) of this section, means a source that emits, or has the potential to emit, any regulated air pollutant at a Significant Emission Rate. The fugitive emissions and insignificant activity emissions of a stationary source are considered in determining whether it is a major source. Potential to emit calculations must include emission increases due to a new or modified source and may include emission decreases.
(b) As used in OAR 340 division 210, Stationary Source Notification Requirements, OAR 340 division 218, Oregon Title V Operating Permits, OAR 340 division 220, Oregon Title V Operating Permit Fees, 340-216-0066, Standard ACDPs, and OAR 340 division 236, Emission Standards for Specific Industries, means any stationary source or any group of stationary sources that are located on one or more contiguous or adjacent properties and are under common control of the same person or persons under common control belonging to a single major industrial grouping or supporting the major industrial group and that is described in paragraphs (A), (B), or (C). For the purposes of this subsection, a stationary source or group of stationary sources is considered part of a single industrial grouping if all of the regulated pollutant emitting activities at such source or group of sources on contiguous or adjacent properties belong to the same major group (i.e., all have the same two-digit code) as described in the Standard Industrial Classification Manual (U.S. Office of Management and Budget, 1987) or support the major industrial group.
(A) A major source of hazardous air pollutants, which means:
(i) For hazardous air pollutants other than radionuclides, any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit, in the aggregate, 10 tons per

year or more of any hazardous air pollutants that has been listed under OAR 340-244-0040; 25 tons per year or more of any combination of such hazardous air pollutants, or such lesser quantity as the Administrator may establish by rule. Emissions from any oil or gas exploration or production well, along with its associated equipment, and emissions from any pipeline compressor or pump station will not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources; or

(ii) For radionuclides, "major source" will have the meaning specified by the Administrator by rule.

(B) A major stationary source of regulated pollutants, as defined in section 302 of the FCAA, that directly emits or has the potential to emit 100 tons per year or more of any regulated pollutant, except greenhouse gases, including any major source of fugitive emissions of any such regulated pollutant. The fugitive emissions of a stationary source are not considered in determining whether it is a major stationary source for the purposes of section 302(j) of the FCAA, unless the source belongs to one of the following categories of stationary sources:

(i) Coal cleaning plants (with thermal dryers);

(ii) Kraft pulp mills;

(iii) Portland cement plants;

(iv) Primary zinc smelters;

(v) Iron and steel mills;

(vi) Primary aluminum ore reduction plants;

(vii) Primary copper smelters;

(viii) Municipal incinerators capable of charging more than 50 tons of refuse per day;

(ix) Hydrofluoric, sulfuric, or nitric acid plants;

(x) Petroleum refineries;

(xi) Lime plants;

(xii) Phosphate rock processing plants;

(xiii) Coke oven batteries;

(xiv) Sulfur recovery plants;

(xv) Carbon black plants (furnace process);

(xvi) Primary lead smelters;

(xvii) Fuel conversion plants;

(xviii) Sintering plants;

(xix) Secondary metal production plants;

(xx) Chemical process plants, excluding ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;

(xxi) Fossil-fuel boilers, or combination thereof, totaling more than 250 million British thermal units per hour heat input;

(xxii) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;

(xxiii) Taconite ore processing plants;

(xxiv) Glass fiber processing plants;

(xxv) Charcoal production plants;

(xxvi) Fossil-fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input; or

(xxvii) Any other stationary source category, that as of August 7, 1980 is being regulated under section 111 or 112 of the FCAA.

(C) From July 1, 2011 through November 6, 2014, a major stationary source of regulated pollutants, as defined by Section 302 of the FCAA, that directly emits or has the potential to emit 100 tons per year or more of greenhouse gases and directly emits or has the potential to emit 100,000 tons per year or more CO2e, including fugitive emissions.

(92) "Material balance" means a procedure for determining emissions based on the difference in the amount of material added to a process and the amount consumed and/or recovered from a process.

(93) "Modification," except as used in the terms "major modification" “permit modification” and “Title I modification,”

means any physical change to, or change in the method of operation of, a source or part of a source that results in an increase in the source or part of the source's potential to emit any regulated pollutant on an hourly basis. Modifications do not include the following:
(a) Increases in hours of operation or production rates that do not involve a physical change or change in the method of operation;
(b) Changes in the method of operation due to using an alternative fuel or raw material that the source or part of a source was physically capable of accommodating during the baseline period; and
(c) Routine maintenance, repair and like-for-like replacement of components unless they increase the expected life of the source or part of a source by using component upgrades that would not otherwise be necessary for the source or part of a source to function.
(94) "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 include conducting compliance method tests, such as the procedures in appendix A to 40 C.F.R. part 60, on a routine periodic basis. Requirements to conduct such tests on a one-time basis, or at such times as a regulatory authority may require on a non-regular basis, are not considered monitoring requirements for purposes of this definition. Monitoring may include one or more than one of the following data collection techniques as appropriate for a particular circumstance:
(a) Continuous emission or opacity monitoring systems.
(b) Continuous process, capture system, control device or other relevant parameter monitoring systems or procedures, including a predictive emission monitoring system.
(c) Emission estimation and calculation procedures (e.g., mass balance or stoichiometric calculations).
(d) Maintaining and analyzing records of fuel or raw materials usage.
(e) Recording results of a program or protocol to conduct specific operation and maintenance procedures.
(f) Verifying emissions, process parameters, capture system parameters, or control device parameters using portable or in situ measurement devices.
(g) Visible emission observations and recording.
(h) Any other form of measuring, recording, or verifying on a routine basis emissions, process parameters, capture system parameters, control device parameters or other factors relevant to assessing compliance with emission limitations or standards.
(95) "Natural gas" means a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal component is methane.
(96) "Netting basis" means an emission rate determined as specified in OAR 340-222-0046.
(97) "Nitrogen oxides" or "NOx" means all oxides of nitrogen except nitrous oxide.
(98) "Nonattainment area" means a geographical area of the state, as designated by the EQC or the EPA, that exceeds any state or federal primary or secondary ambient air quality standard. Nonattainment areas are designated by the EQC according to division 204.
(99) "Nonattainment pollutant" means a regulated pollutant for which an area is designated a nonattainment area. Nonattainment areas are designated by the EQC according to division 204.
(100) "Normal source operation" means operation that does not include such conditions as forced fuel substitution, equipment malfunction, or highly abnormal market conditions.
(101) "Odor" means that property of an air contaminant that affects the sense of smell.
(102) "Offset" means an equivalent or greater emission reduction that is required before allowing an emission increase from a source that is subject to Major NSR or State NSR.
(103) "Opacity" means the degree to which emissions, excluding uncombined water, reduce the transmission of light and obscure the view of an object in the background as measured by EPA Method 9 or other method, as specified in each applicable rule.

(104) "Oregon Title V operating permit" or “Title V permit” means written authorization issued, renewed, amended, or revised under OAR 340 division 218.
(105) "Oregon Title V operating permit program" or “Title V program” means the Oregon program described in OAR 340 division 218 and approved by the Administrator under 40 C.F.R. part 70.
(106) "Oregon Title V operating permit program source" or “Title V source” means any source subject to the permitting requirements, OAR 340 division 218.
(107) "Ozone precursor" means nitrogen oxides and volatile organic compounds.
(108) "Ozone season" means the contiguous 3 month period during which ozone exceedances typically occur, i.e., June, July, and August.
(109) "Particleboard" means matformed flat panels consisting of wood particles bonded together with synthetic resin or other suitable binder.
(110) "Particulate matter" means all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by the test method specified in each applicable rule, or where not specified by rule, in the permit.
(111) "Permit" means an Air Contaminant Discharge Permit or an Oregon Title V Operating Permit, permit attachment and any amendments or modifications thereof.
(112) "Permit modification" means a permit revision that meets the applicable requirements of OAR 340 division 216, OAR 340 division 224, or OAR 340-218-0160 through 340-218-0180.
(113) "Permit revision" means any permit modification or administrative permit amendment.
(114) "Permitted emissions" as used in OAR 340 division 220 means each regulated pollutant portion of the PSEL, as identified in an ACDP, Oregon Title V Operating Permit, review report, or by DEQ under OAR 340-220-0090.
(115) "Permittee" means the owner or operator of a source, authorized to emit regulated pollutants under an ACDP or Oregon Title V Operating Permit.
(116) "Person" means individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the State of Oregon and any agencies thereof, and the federal government and any agencies thereof.
(117) "Plant Site Emission Limit" or "PSEL" means the total mass emissions per unit time of an individual regulated pollutant specified in a permit for a source. The PSEL for a major source may consist of more than one permitted emission for purposes of Oregon Title V Operating Permit Fees in OAR 340 division 220.
(118) “Plywood" means a flat panel built generally of an odd number of thin sheets of veneers of wood in which the grain direction of each ply or layer is at right angles to the one adjacent to it.
(119) "PM10":
(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 10 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 10 micrometers as measured under 40 C.F.R. part 50, Appendix J or an equivalent method designated under 40 C.F.R. part 53.
(120) "PM2.5":
(a) When used in the context of direct PM2.5 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 PM2.5 precursor emissions, means sulfur dioxide (SO2) and nitrogen oxides (NOx) 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.

(c) 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 C.F.R. part 50, Appendix L, or an equivalent method designated under 40 C.F.R. part 53.
(121) "PM2.5 fraction" means the fraction of PM2.5 in relation to PM10 for each emissions unit that is included in the netting basis and PSEL.
(122) "Pollutant-specific emissions unit" means an emissions unit considered separately with respect to each regulated pollutant.
(123) “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.
(124) "Potential to emit" or "PTE" means the lesser of:
(a) The regulated pollutant emissions capacity of a stationary source; or
(b) The maximum allowable regulated pollutant emissions taking into consideration any physical or operational limitation, including use of control devices and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, if the limitation is enforceable by the Administrator.
(c) This definition does not alter or affect the use of this term for any other purposes under the FCAA or the term "capacity factor" as used in Title IV of the FCAA and the regulations promulgated thereunder. Secondary emissions are not considered in determining the potential to emit.
(125) "ppm" means parts per million by volume unless otherwise specified in the applicable rule or an individual permit. It is a dimensionless unit of measurement for gases that expresses the ratio of the volume of one component gas to the volume of the entire sample mixture of gases.
(126) "Predictive emission monitoring system” or “PEMS" means a system that uses process and other parameters as inputs to a computer program or other data reduction system to produce values in terms of the applicable emission limitation or standard.
(127) "Press/cooling vent" means any opening through which particulate and gaseous emissions from plywood, particleboard, or hardboard manufacturing are exhausted, either by natural draft or powered fan, from the building housing the process. Such openings are generally located immediately above the board press, board unloader, or board cooling area.
(128) "Process upset" means a failure or malfunction of a production process or system to operate in a normal and usual manner.
(129) "Proposed permit" means the version of an Oregon Title V Operating Permit that DEQ or LRAPA proposes to issue and forwards to the Administrator for review in compliance with OAR 340-218-0230.
(130) “Reattainment area” means an area that is designated as nonattainment and has three consecutive years of monitoring data that shows the area is meeting the ambient air quality standard for the regulated pollutant for which the area was designated a nonattainment area, but a formal redesignation by EPA has not yet been approved. Reattainment areas are designated by the EQC according to division 204.
(131) “Reattainment pollutant” means a regulated pollutant for which an area is designated a reattainment area.
(132) "Reference method" means any method of sampling and analyzing for a regulated pollutant as specified in 40 C.F.R. part 52, 60, 61 or 63.
(133) "Regional agency" means Lane Regional Air Protection Agency.
(134) "Regulated air pollutant" or "Regulated pollutant":
(a) Except as provided in subsections (b), (c) and (d), means:
(A) Nitrogen oxides or any VOCs;
(B) Any pollutant for which an ambient air quality standard has been promulgated, including any precursors to such pollutants;
(C) Any pollutant that is subject to any standard promulgated under section 111 of the FCAA;
(D) Any Class I or II substance subject to a standard promulgated under or established by Title VI of the FCAA;
(E) Any pollutant listed under OAR 340-244-0040 or 40 C.F.R. 68.130;

(F) Greenhouse gases; and
(G) Toxic Air Contaminants.
(b) As used in OAR 340 division 220, Oregon Title V Operating Permit Fees, regulated pollutant means particulate matter, volatile organic compounds, oxides of nitrogen and sulfur dioxide.
(c) As used in OAR 340 division 222, Plant Site Emission Limits and division 224, New Source Review, regulated pollutant does not include any pollutant listed in OAR 340 divisions 244 and 246.
(d) As used in OAR 340 division 202 Ambient Air Quality Standards And PSD Increments through division 208 Visible Emissions and Nuisance Requirements; division 215 Greenhouse Reporting Requirements; division 222 Stationary Source Plant Site Emission Limits through division 244 Oregon Federal Hazardous Air Pollutant Program; and division 248 Asbestos Requirements through division 268 Emission Reduction Credits; regulated pollutant means only the air contaminants listed under paragraphs (a)(A) through (F).
(135) “Removal efficiency” means the performance of an air pollution control device in terms of the ratio of the amount of the regulated pollutant removed from the airstream to the total amount of regulated pollutant that enters the air pollution control device.
(136) "Renewal" means the process by which a permit is reissued at the end of its term.
(137) "Responsible official" means one of the following:
(a) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
(A) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or
(B) The delegation of authority to such representative is approved in advance by DEQ or LRAPA.
(b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
(c) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this division, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of EPA (e.g., a Regional Administrator of the EPA); or
(d) For affected sources:
(A) The designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the FCAA or the regulations promulgated there under are concerned; and
(B) The designated representative for any other purposes under the Oregon Title V Operating Permit program.
(138) "Secondary emissions" means emissions that are a result of the construction and/or operation of a source or modification, but that do not come from the source itself. Secondary emissions must be specific, well defined, quantifiable, and impact the same general area as the source associated with the secondary emissions. Secondary emissions may include, but are not limited to:
(a) Emissions from ships and trains coming to or from a facility;
(b) Emissions from off-site support facilities that would be constructed or would otherwise increase emissions as a result of the construction or modification of a source.
(139) "Section 111" means section 111 of the FCAA, 42 U.S.C. § 7411, which includes Standards of Performance for New Stationary Sources (NSPS).
(140) "Section 111(d)" means subsection 111(d) of the FCAA, 42 U.S.C. § 7411(d), which requires states to submit to the EPA plans that establish standards of performance for existing sources and provides for implementing and enforcing such standards.
(141) "Section 112" means section 112 of the FCAA, 42 U.S.C. § 7412, which contains regulations for Hazardous Air Pollutants.
(142) "Section 112(b)" means subsection 112(b) of the FCAA, 42 U.S.C. § 7412(b), which includes the list of hazardous

air pollutants to be regulated.
(143) "Section 112(d)" means subsection 112(d) of the FCAA, 42 U.S.C. § 7412(d), which directs the EPA to establish emission standards for sources of hazardous air pollutants. This section also defines the criteria to be used by the EPA when establishing the emission standards.
(144) "Section 112(e)" means subsection 112(e) of the FCAA, 42 U.S.C. § 7412(e), which directs the EPA to establish and promulgate emissions standards for categories and subcategories of sources that emit hazardous air pollutants.
(145) "Section 112(r)(7)" means subsection 112(r)(7) of the FCAA, 42 U.S.C. § 7412(r)(7), which requires the EPA to promulgate regulations for the prevention of accidental releases and requires owners or operators to prepare risk management plans.
(146) "Section 114(a)(3)" means subsection 114(a)(3) of the FCAA, 42 U.S.C. § 7414(a)(3), which requires enhanced monitoring and submission of compliance certifications for major sources.
(147) "Section 129" means section 129 of the FCAA, 42 U.S.C. § 7429, which requires the EPA to establish emission standards and other requirements for solid waste incineration units.
(148) "Section 129(e)" means subsection 129(e) of the FCAA, 42 U.S.C. § 7429(e), which requires solid waste incineration units to obtain Oregon Title V Operating Permits.
(149) "Section 182(f)" means subsection 182(f) of the FCAA, 42 U.S.C. § 7511a(f), which requires states to include plan provisions in the SIP for NOx in ozone nonattainment areas.
(150) "Section 182(f)(1)" means subsection 182(f)(1) of the FCAA, 42 U.S.C. § 7511a(f)(1), which requires states to apply those plan provisions developed for major VOC sources and major NOx sources in ozone nonattainment areas.
(151) "Section 183(e)" means subsection 183(e) of the FCAA, 42 U.S.C. § 7511b(e), which requires the EPA to study and develop regulations for the control of certain VOC sources under federal ozone measures.
(152) "Section 183(f)" means subsection 183(f) of the FCAA, 42 U.S.C. § 7511b(f), which requires the EPA to develop regulations pertaining to tank vessels under federal ozone measures.
(153) "Section 184" means section 184 of the FCAA, 42 U.S.C. § 7511c, which contains regulations for the control of interstate ozone air pollution.
(154) "Section 302" means section 302 of the FCAA, 42 U.S.C. § 7602, which contains definitions for general and administrative purposes in the FCAA.
(155) "Section 302(j)" means subsection 302(j) of the FCAA, 42 U.S.C. § 7602(j), which contains definitions of "major stationary source" and "major emitting facility."
(156) "Section 328" means section 328 of the FCAA, 42 U.S.C. § 7627, which contains regulations for air pollution from outer continental shelf activities.
(157) "Section 408(a)" means subsection 408(a) of the FCAA, 42 U.S.C. § 7651g(a), which contains regulations for the Title IV permit program.
(158) "Section 502(b)(10) change" means a change which contravenes an express permit term but is not a change that:
(a) Would violate applicable requirements;
(b) Would contravene federally enforceable permit terms and conditions that are monitoring, recordkeeping, reporting, or compliance certification requirements; or
(c) Is a FCAA Title I modification.
(159) "Section 504(b)" means subsection 504(b) of the FCAA, 42 U.S.C. § 7661c(b), which states that the EPA can prescribe by rule procedures and methods for determining compliance and for monitoring.
(160) "Section 504(e)" means subsection 504(e) of the FCAA, 42 U.S.C. § 761c(e), which contains regulations for permit requirements for temporary sources.
(161) "Significant emission rate" or "SER," except as provided in subsections (v) and (w), means an emission rate equal to or greater than the rates specified for the regulated pollutants below:
(a) Greenhouse gases (CO2e) = 75,000 tons per year
(b) Carbon monoxide = 100 tons per year except in a serious nonattainment area = 50 tons per year, provided DEQ has determined that stationary sources contribute significantly to carbon monoxide levels in that area.

(c) Nitrogen oxides (NOX) = 40 tons per year.
(d) Particulate matter = 25 tons per year.
(e) PM10 = 15 tons per year.
(f) Direct PM2.5 = 10 tons per year.
(g) PM2.5 precursors (SO2 or NOx) = 40 tons per year.
(h) Sulfur dioxide (SO2) = 40 tons per year.
(i) Ozone precursors (VOC or NOx) = 40 tons per year except:
(I) In a serious or severe ozone nonattainment area = 25 tons per year.
(II) In an extreme ozone nonattainment area = any emissions increase.
(j) Lead = 0.6 tons per year.
(k) Fluorides = 3 tons per year.
(l) Sulfuric acid mist = 7 tons per year.
(m) Hydrogen sulfide = 10 tons per year.
(n) Total reduced sulfur (including hydrogen sulfide) = 10 tons per year.
(o) Reduced sulfur compounds (including hydrogen sulfide) = 10 tons per year.
(p) Municipal waste combustor organics (measured as total tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans) = 0.0000035 tons per year.
(q) Municipal waste combustor metals (measured as particulate matter) = 15 tons per year.
(r) Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride) = 40 tons per year.
(s) Municipal solid waste landfill emissions (measured as nonmethane organic compounds) = 50 tons per year.
(t) Ozone depleting substances in aggregate = 100 tons per year.
(u) For the Medford-Ashland Air Quality Maintenance Area, the SER for PM10 is defined as 5 tons per year on an annual basis and 50.0 pounds per day on a daily basis.
(v) For regulated pollutants not listed in subsections (a) through (u), the SER is zero unless DEQ determines the rate that constitutes a SER.
(w) Any new source or modification with an emissions increase less than the rates specified above and that is located within 10 kilometers of a Class I area, and would have an impact on such area equal to or greater than 1 ug/m3 (24 hour average) is emitting at a SER. This subsection does not apply to greenhouse gas emissions.
(162) "Significant impact" means an additional ambient air quality concentration equal to or greater than the significant impact level. For sources of VOC or NOx, a source has a significant impact if it is located within the ozone impact distance defined in OAR 340 division 224.
(163) “Significant impact level” or “SIL” means the ambient air quality concentrations listed below. The threshold concentrations listed below are used for comparison against the ambient air quality standards and PSD increments established under OAR 340 division 202, but do not apply for protecting air quality related values, including visibility.
(a) For Class I areas:
(A) PM2.5:
(i) Annual = 0.06 g/m3.
(ii) 24-hour = 0.07 g/m3.
(B) PM10:
(i) Annual = 0.20 g/m3.
(ii) 24-hour = 0.30 g/m3.
(C) Sulfur dioxide:
(i) Annual = 0.10 g/m3.
(ii) 24-hour = 0.20 g/m3.
(iii) 3-hour = 1.0 g/m3.
(D) Nitrogen dioxide: annual = 0.10 g/m3.
(b) For Class II areas:

(A) PM2.5:
(i) Annual = 0.3 g/m3.
(ii) 24-hour = 1.2 g/m3.
(B) PM10:
(i) Annual = 0.20 g/m3.
(ii) 24-hour = 1.0 g/m3.
(C) Sulfur dioxide:
(i) Annual = 1.0 g/m3.
(ii) 24-hour = 5.0 g/m3.
(iii) 3-hour =25.0 g/m3.
(iv) 1-hour = 8.0 g/m3.
(D) Nitrogen dioxide:
(i) Annual =1.0 g/m3.
(ii) 1-hour = 8.0 g/m3.
(E) Carbon monoxide:
(i) 8-hour = 0.5 mg/m3.
(ii) 1-hour = 2.0 mg/m3.
(c) For Class III areas:
(A) PM2.5:
(i) Annual = 0.3 g/m3.
(ii) 24-hour = 1.2 g/m3.
(B) PM10:
(i) Annual = 0.20 g/m3.
(ii) 24-hour = 1.0 g/m3.
(C) Sulfur dioxide:
(i) Annual = 1.0 g/m3.
(ii) 24-hour = 5.0 g/m3.
(iii) 3-hour = 25.0 g/m3.
(D) Nitrogen dioxide: annual = 1.0 g/m3
(E) Carbon monoxide:
(i) 8-hour = 0.5 mg/m3.
(ii) 1-hour = 2.0 mg/m3.
(164) "Significant impairment" occurs when DEQ determines that visibility impairment interferes with the management, protection, preservation, or enjoyment of the visual experience within a Class I area. DEQ will make this determination on a case-by-case basis after considering the recommendations of the Federal Land Manager and the geographic extent, intensity, duration, frequency, and time of visibility impairment. These factors will be considered along with visitor use of the Class I areas, and the frequency and occurrence of natural conditions that reduce visibility.
(165) "Small scale local energy project" means:
(a) A system, mechanism or series of mechanisms located primarily in Oregon that directly or indirectly uses or enables the use of, by the owner or operator, renewable resources including, but not limited to, solar, wind, geothermal, biomass, waste heat or water resources to produce energy, including heat, electricity and substitute fuels, to meet a local community or regional energy need in this state;
(b) A system, mechanism or series of mechanisms located primarily in Oregon or providing substantial benefits to Oregon that directly or indirectly conserves energy or enables the conservation of energy by the owner or operator, including energy used in transportation;
(c) A recycling project;
(d) An alternative fuel project;

(e) An improvement that increases the production or efficiency, or extends the operating life, of a system, mechanism, series of mechanisms or project otherwise described in this section of this rule, including but not limited to restarting a dormant project;
(f) A system, mechanism or series of mechanisms installed in a facility or portions of a facility that directly or indirectly reduces the amount of energy needed for the construction and operation of the facility and that meets the sustainable building practices standard established by the State Department of Energy by rule; or
(g) A project described in subsections (a) to (f), whether or not the existing project was originally financed under ORS 470, together with any refinancing necessary to remove prior liens or encumbrances against the existing project.
(h) A project described in subsections (a) to (g) that conserves energy or produces energy by generation or by processing or collection of a renewable resource.
(166) "Source" means any building, structure, facility, installation or combination thereof that emits or is capable of emitting air contaminants to the atmosphere, is located on one or more contiguous or adjacent properties and is owned or operated by the same person or by persons under common control. The term includes all air contaminant emitting activities that belong to a single major industrial group, i.e., that have the same two-digit code, as described in the Standard Industrial Classification Manual, U.S. Office of Management and Budget, 1987, or that support the major industrial group.
(167) "Source category":
(a) Except as provided in subsection (b), means all the regulated pollutant emitting activities that belong to the same industrial grouping, i.e., that have the same two-digit code, as described in the Standard Industrial Classification Manual, U.S. Office of Management and Budget, 1987.
(b) As used in OAR 340 division 220, Oregon Title V Operating Permit Fees, means a group of major sources that DEQ determines are using similar raw materials and have equivalent process controls and pollution control device.
(168) "Source test" means the average of at least three test runs conducted under the DEQ Source Sampling Manual found in 340-200-0035.
(169) "Standard conditions" means a temperature of 68° Fahrenheit (20° Celsius) and a pressure of 14.7 pounds per square inch absolute (1.03 Kilograms per square centimeter).
(170) "Startup" and "shutdown" means that time during which a source or control device is brought into normal operation or normal operation is terminated, respectively.
(171) "State Implementation Plan" or "SIP" means the State of Oregon Clean Air Act Implementation Plan as adopted by the EQC under OAR 340-200-0040 and approved by EPA.
(172) “State New Source Review” or “State NSR” means the new source review process and requirements under OAR 340-224-0010 through 340-224-0038, 340-224-0245 through 340-224-0270 and 340-224-0500 through 340-224-0540 based on the location and regulated pollutants emitted.
(173) "Stationary source" means any building, structure, facility, or installation at a source that emits or may emit any regulated pollutant. Stationary source includes portable sources that are required to have permits under OAR 340 division 216.
(174) "Substantial underpayment" means the lesser of 10 percent of the total interim emission fee for the major source or five hundred dollars.
(175) “Sustainment area” means a geographical area of the state for which DEQ has ambient air quality monitoring data that shows an attainment or unclassified area could become a nonattainment area but a formal redesignation by EPA has not yet been approved. The presumptive geographic boundary of a sustainment area is the applicable urban growth boundary in effect on the date this rule was last approved by the EQC, unless superseded by rule. Sustainment areas are designated by the EQC according to division 204.
(176) “Sustainment pollutant” means a regulated pollutant for which an area is designated a sustainment area.
(177) "Synthetic minor source" means a source that would be classified as a major source under OAR 340-200-0020, but for limits on its potential to emit regulated pollutants contained in an ACDP or Oregon Title V permit issued by DEQ.

(178) "Title I modification" means one of the following modifications under Title I of the FCAA:
(a) A major modification subject to OAR 340-224-0050, Requirements for Sources in Nonattainment Areas or OAR 340-224-0055, Requirements for Sources in Reattainment Areas;
(b) A major modification subject to OAR 340-224-0060, Requirements for Sources in Maintenance Areas;
(c) A major modification subject to OAR 340-224-0070, Prevention of Significant Deterioration Requirements for Sources in Attainment or Unclassified Areas or 340-224-0045 Requirements for Sources in Sustainment Areas;
(d) A modification that is subject to a New Source Performance Standard under Section 111 of the FCAA; or,
(e) A modification under Section 112 of the FCAA.
(179) "Total reduced sulfur" or "TRS" means the sum of the sulfur compounds hydrogen sulfide, methyl mercaptan, dimethyl sulfide, dimethyl disulfide, and any other organic sulfides present expressed as hydrogen sulfide (H2S).
(180) “Toxic air contaminant” means an air pollutant that has been determined by the EQC to cause, or reasonably be anticipated to cause, adverse effects to human health and is listed in OAR 340-247-8010 Table 1.
(181) “Type A State NSR” means State NSR as specified in OAR 340-224-0010(2)(a).
(182) “Type B State NSR” means State NSR that is not Type A State NSR.
(183) "Typically Achievable Control Technology" or "TACT" means the emission limit established on a case-by-case basis for a criteria pollutant from a particular emissions unit under OAR 340-226-0130.
(184) "Unassigned emissions" means the amount of emissions that are in excess of the PSEL but less than the netting basis.
(185) "Unavoidable" or "could not be avoided" means events that are not caused entirely or in part by design, operation, maintenance, or any other preventable condition in either process or control device.
(186) “Unclassified area” or “attainment area” means an area that has not otherwise been designated by EPA as nonattainment with ambient air quality standards for a particular regulated pollutant. Attainment areas or unclassified areas may also be referred to as sustainment or maintenance areas as designated in OAR 340 division 204. Any particular location may be part of an attainment area or unclassified area for one regulated pollutant while also being in a different type of designated area for another regulated pollutant.
(187) "Upset" or "Breakdown" means any failure or malfunction of any pollution control device or operating equipment that may cause excess emissions.
(188) "Veneer" means a single flat panel of wood not exceeding 1/4 inch in thickness formed by slicing or peeling from a log.
(189) "Veneer dryer" means equipment in which veneer is dried.
(190) "Visibility impairment" means any humanly perceptible change in visual range, contrast or coloration from that which existed under natural conditions. Natural conditions include fog, clouds, windblown dust, rain, sand, naturally ignited wildfires, and natural aerosols.
(191) "Volatile organic compounds" or "VOC" means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, that participates in atmospheric photochemical reactions.
(a) This includes any such organic compound other than the following, which have been determined to have negligible photochemical reactivity:
(A) Methane;
(B) Ethane;
(C) Methylene chloride (dichloromethane);
(D) 1,1,1-trichloroethane (methyl chloroform);
(E) 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);
(F) Trichlorofluoromethane (CFC-11);
(G) Dichlorodifluoromethane (CFC-12);
(H) Chlorodifluoromethane (HCFC-22);
(I) Trifluoromethane (HFC-23);

(J) 1,2-dichloro 1,1,2,2-tetrafluoroethane (CFC-114);
(K) Chloropentafluoroethane (CFC-115);
(L) 1,1,1-trifluoro 2,2-dichloroethane (HCFC-123);
(M) 1,1,1,2-tetrafluoroethane (HFC-134a);
(N) 1,1-dichloro 1-fluoroethane (HCFC-141b);
(O) 1-chloro 1,1-difluoroethane (HCFC-142b);
(P) 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124);
(Q) Pentafluoroethane (HFC-125);
(R) 1,1,2,2-tetrafluoroethane (HFC-134);
(S) 1,1,1-trifluoroethane (HFC-143a);
(T) 1,1-difluoroethane (HFC-152a);
(U) Parachlorobenzotrifluoride (PCBTF);
(V) Cyclic, branched, or linear completely methylated siloxanes;
(W) Acetone;
(X) Perchloroethylene (tetrachloroethylene);
(Y) 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca);
(Z) 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb);
(AA) 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee);
(BB) Difluoromethane (HFC-32);
(CC) Ethylfluoride (HFC-161);
(DD) 1,1,1,3,3,3-hexafluoropropane (HFC-236fa);
(EE) 1,1,2,2,3-pentafluoropropane (HFC-245ca);
(FF) 1,1,2,3,3-pentafluoropropane (HFC-245ea);
(GG) 1,1,1,2,3-pentafluoropropane (HFC-245eb);
(HH) 1,1,1,3,3-pentafluoropropane (HFC-245fa);
(II) 1,1,1,2,3,3-hexafluoropropane (HFC-236ea);
(JJ) 1,1,1,3,3-pentafluorobutane (HFC-365mfc);
(KK) chlorofluoromethane (HCFC-31);
(LL) 1 chloro-1-fluoroethane (HCFC-151a);
(MM) 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a);
(NN) 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane (C4 F9 OCH3 or HFE-7100);
(OO) 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF3)2 CFCF2 OCH3);
(PP) 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane (C4 F9 OC2 H5 or HFE-7200);
(QQ) 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF3)2 CFCF2 OC2 H5);
(RR) Methyl acetate;
(SS) 1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane (n-C3F7OCH3, HFE-7000);
(TT) 3-ethoxy- 1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl) hexane (HFE-7500);
(UU) 1,1,1,2,3,3,3-heptafluoropropane (HFC 227ea);
(VV) Methyl formate (HCOOCH3);
(WW) 1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane (HFE-7300);
(XX) Propylene carbonate;
(YY) Dimethyl carbonate;
(ZZ) Trans -1,3,3,3-tetrafluoropropene (also known as HFO-1234ze);
(AAA) HCF2 OCF2 H (HFE-134);
(BBB) HCF2 OCF2 OCF2 H (HFE-236cal2);
(CCC) HCF2 OCF2 CF2 OCF2 H (HFE-338pcc13);
(DDD) HCF2 OCF2 OCF2 CF2 OCF2 H (H-Galden 1040x or H-Galden ZT 130 (or 150 or 180));

(EEE) Trans 1-chloro-3,3,3-trifluoroprop-1-ene (also known as SolsticeTM 1233zd(E));
(FFF) 2,3,3,3-tetrafluoropropene (also known as HFO–1234yf);
(GGG) 2-amino-2-methyl-1-propanol; and
(HHH) perfluorocarbon compounds which fall into these classes:
(i) Cyclic, branched, or linear, completely fluorinated alkanes;
(ii) Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
(iii) Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
(iv) Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
(b) For purposes of determining compliance with emissions limits, VOC will be measured by an applicable reference method in the DEQ Source Sampling Manual referenced in OAR 340-200-0035. Where such a method also measures compounds with negligible photochemical reactivity, these negligibly-reactive compounds may be excluded as VOC if the amount of such compounds is accurately quantified, and DEQ approves the exclusion.
(c) DEQ may require an owner or operator to provide monitoring or testing methods and results demonstrating, to DEQ's satisfaction, the amount of negligibly-reactive compounds in the source's emissions.
(d) The following compounds are VOC for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling and inventory requirements which apply to VOC and must be uniquely identified in emission reports, but are not VOC for purposes of VOC emissions limitations or VOC content requirements: t-butyl acetate.
(192) "Wood fired veneer dryer" means a veneer dryer, that is directly heated by the products of combustion of wood fuel in addition to or exclusive of steam or natural gas or propane combustion.
(193) “Wood fuel-fired device” means a device or appliance designed for wood fuel combustion, including cordwood stoves, woodstoves and fireplace stove inserts, fireplaces, wood fuel-fired cook stoves, pellet stoves and combination fuel furnaces and boilers that burn wood fuels.
(194) "Year" means any consecutive 12 month period of time.
NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan that EQC adopted under OAR 340-200-0040 with the exception of all references to toxic air contaminants and OAR chapter 340, division 245.
[NOTE: Referenced publications not linked to below are available from the agency.]
[NOTE: View a PDF of referenced tables and EPA Methods by clicking on "Tables" link below.]

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468A

STATUTES/OTHER IMPLEMENTED: ORS 468A.025, 468A.035, 468A.040, 468A.050, 468A.055, 468A.070, 468A.075, 468A.085, 468A.105, 468A.135, 468A.140, 468A.155, 468A.280, 468A.310, 468A.315, 468A.360, 468A.363, 468A.380, 468A.385, 468A.420, 468A.495, 468A.500, 468A.505, 468A.515, 468A.575, 468A.595, 468A.600, 468A.610, 468A.612, 468A.620, 468A.635, 468A.707, 468A.740, 468A.745, 468A.750, 468A.775, 468A.780, 468A.797, 468A.799, 468A.803, 468A.820, & Or. Laws 2009, chapter 754

State of Oregon Department of Environmental Quality

OAR 340-200-0020 Attachments

OAR 340-200-0020
Table 1 Significant Air Quality Impact

Pollutant	Averaging Time	Air Quality Area Designation		
		Class I	Class II	Class III
SO_2 ($\mu g/m^3$)*	Annual	0.10	1.0	1.0
	24-hour	0.20	5.0	5.0
	3-hour	1.0	25.0	25.0
	1-hour	---	8.0	---
PM10 (µg/m3)	Annual	0.20	0.2	0.2
	24-hour	0.30	1.0	1.0
PM2.5 (µg/m3)	Annual	0.06	0.3	0.3
	24-hour	0.07	1.2	1.2
NO2 (µg/m3)	Annual	0.10	1.0	1.0
	1-hour	---	8.0	---
CO (mg/m3)**	8 hour	---	0.5	0.5
	1-hour	---	2.0	2.0

* micrograms/cubic meter
**milligrams/cubic meter

OAR 340-200-0020
Table 2 Significant Emission Rates

Pollutant	Emission Rate
Greenhouse Gases (CO2e)	75,000 tons/year
Carbon Monoxide	100 tons/year
Nitrogen Oxides (NOX)	40 tons/year
Particulate Matter	25 tons/year
PM10	15 tons/year
Direct PM2.5	10 tons/year
PM2.5 precursors (SO2 or NOx)	40 tons/year
Sulfur Dioxide (SO2)	40 tons/year
Volatile Organic Compounds (VOC)	40 tons/year
Ozone precursors (VOC or NOx)	40 tons/year
Lead	0.6 ton/year
Fluorides	3 tons/year
Sulfuric Acid Mist	7 tons/year
Hydrogen Sulfide	10 tons/year
Total Reduced Sulfur (including hydrogen sulfide)	10 tons/year
Reduced sulfur compounds (including hydrogen sulfide)	10 tons/year
Municipal waste combustor organics (measured as total tetra- through octa- chlorinated dibenzo-p- dioxins and dibenzofurans)	0.0000035 ton/year
Municipal waste combustor metals (measured as particulate matter)	15 tons/year
Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)	40 tons/year
Municipal solid waste landfill emissions (measured as nonmethane organic compounds)	50 tons/year

OAR 340-200-0020
Table 3 Significant Emission Rates for the Medford-Ashland Air Quality Maintenance Area

Air Contaminant	Emission Rate	
	Annual	Day
PM10	5 tons	50 lbs.

OAR 340-200-0020(33)
Table 4 De Minimis Emission Levels

Pollutant	De Minimis (tons/year, except as noted)
Greenhouse Gases (CO2e)	2,756
CO	1
NOx	1
SO2	1
VOC	1
PM	1
PM10 (except Medford AQMA)	1
PM10/PM2.5 (Medford AQMA)	0.5 [5.0 lbs/day]
Direct PM2.5	1
Lead	0.1
Fluorides	0.3
Sulfuric Acid Mist	0.7
Hydrogen Sulfide	1
Total Reduced Sulfur (including hydrogen sulfide)	1
Reduced Sulfur	1
Municipal waste combustor organics (Dioxin and furans)	0.0000005
Municipal waste combustor metals	1
Municipal waste combustor acid gases	1
Municipal solid waste landfill gases	1
Single HAP	1
Combined HAP (aggregate)	1

OAR 340-200-0020(60)
Table 5 Generic PSELS

Pollutant	Generic PSEL (tons/year, except as noted)
Greenhouse Gases (CO2e)	74,000
CO	99
NOx	39
SO2	39
VOC	39
PM	24
PM10 (except Medford AQMA)	14
PM10/PM2.5 (Medford AQMA)	4.5 [49 lbs/day]
Direct PM2.5	9
Lead	0.5
Fluorides	2
Sulfuric Acid Mist	6
Hydrogen Sulfide	9
Total Reduced Sulfur (including hydrogen sulfide)	9
Reduced Sulfur	9
Municipal waste combustor organics (Dioxin and furans)	0.0000030
Municipal waste combustor metals	14
Municipal waste combustor acid gases	39
Municipal solid waste landfill gases	49
Single HAP	9
Combined HAPs (aggregate)	24

While we have taken steps to ensure the accuracy of this Internet version of the document, it is not the official version. To see a complete version including any recent edits, visit: https://www.ecfr.gov/cgi-bin/ECFR?page=browse and search under Title 40, Protection of Environment.

METHOD 9 - VISUAL DETERMINATION OF THE OPACITY OF EMISSIONS FROM STATIONARY SOURCES

Many stationary sources discharge visible emissions into the atmosphere; these emissions are usually in the shape of a plume. This method involves the determination of plume opacity by qualified observers. The method includes procedures for the training and certification of observers, and procedures to be used in the field for determination of plume opacity. The appearance of a plume as viewed by an observer depends upon a number of variables, some of which may be controllable and some of which may not be controllable in the field. Variables which can be controlled to an extent to which they no longer exert a significant influence upon plume appearance include: Angle of the observer with respect to the plume; angle of the observer with respect to the sun; point of observation of attached and detached steam plume; and angle of the observer with respect to a plume emitted from a rectangular stack with a large length to width ratio. The method includes specific criteria applicable to these variables.

Other variables which may not be controllable in the field are luminescence and color contrast between the plume and the background against which the plume is viewed. These variables exert an influence upon the appearance of a plume as viewed by an observer, and can affect the ability of the observer to accurately assign opacity values to the observed plume. Studies of the theory of plume opacity and field studies have demonstrated that a plume is most visible and presents the greatest apparent opacity when viewed against a contrasting background. It follows from this, and is confirmed by field trials, that the opacity of a plume, viewed under conditions where a contrasting background is present can be assigned with the greatest degree of accuracy. However, the potential for a positive error is also the greatest when a plume is viewed under such contrasting conditions. Under conditions presenting a less contrasting background, the apparent opacity of a plume is less and approaches zero as the color and luminescence contrast decrease toward zero. As a result, significant negative bias and negative errors can be made when a plume is viewed under less contrasting conditions. A negative bias decreases rather than increases the possibility that a plant operator will be cited for a violation of opacity standards due to observer error.

Studies have been undertaken to determine the magnitude of positive errors which can be made by qualified observers while reading plumes under contrasting conditions and using the procedures set forth in this method. The results of these studies (field trials) which involve a total of 769 sets of 25 readings each are as follows:

(1) For black plumes (133 sets at a smoke generator), 100 percent of the sets were read with a positive error[1] of less than 7.5 percent opacity; 99 percent were read with a positive error of less than 5 percent opacity.

(2) For white plumes (170 sets at a smoke generator, 168 sets at a coal-fired power plant, 298 sets at a sulfuric acid plant), 99 percent of the sets were read with a positive error of less than 7.5 percent opacity; 95 percent were read with a positive error of less than 5 percent opacity. The positive observational error associated with an average of twenty-five readings is therefore established. The accuracy of the method must be taken into account when determining possible violations of applicable opacity standards.

[1] For a set, positive error-average opacity determined by observer' s 25 observations-average opacity determined from transmissometer's 25 recordings.

1. Principle and Applicability

1.1 Principle. The opacity of emissions from stationary sources is determined visually by a qualified observer.

1.2 Applicability. This method is applicable for the determination of the opacity of emissions from stationary sources pursuant to §60.11(b) and for qualifying observers for visually determining opacity of emissions.

2. Procedures

The observer qualified in accordance with section 3 of this method shall use the following procedures for visually determining the opacity of emissions:

2.1 Position. The qualified observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented in the 140° sector to his back. Consistent with maintaining the above requirement, the observer shall, as much as possible, make his observations from a position such that his line of vision is approximately perpendicular to the plume direction, and when observing opacity of emissions from rectangular outlets (e.g., roof monitors, open baghouses, noncircular stacks), approximately perpendicular to the longer axis of the outlet. The observer's line of sight should not include more than one plume at a time when multiple stacks are involved, and in any case the observer should make his observations with his line of sight perpendicular to the longer axis of such a set of multiple stacks (e.g., stub stacks on baghouses).

2.2 Field Records. The observer shall record the name of the plant, emission location, type facility, observer's name and affiliation, a sketch of the observer's position relative to the source, and the date on a field data sheet (Figure 9–1). The time, estimated distance to the emission location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), and plume background are recorded on a field data sheet at the time opacity readings are initiated and completed.

2.3 Observations. Opacity observations shall be made at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. The observer shall not look continuously at the plume, but instead shall observe the plume momentarily at 15-second intervals.

2.3.1 Attached Steam Plumes. When condensed water vapor is present within the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible. The observer shall record the approximate distance from the emission outlet to the point in the plume at which the observations are made.

2.3.2 Detached Steam Plume. When water vapor in the plume condenses and becomes visible at a distinct distance from the emission outlet, the opacity of emissions should be evaluated at the emission outlet prior to the condensation of water vapor and the formation of the steam plume.

2.4 Recording Observations. Opacity observations shall be recorded to the nearest 5 percent at 15-second intervals on an observational record sheet. (See Figure 9–2 for an example.) A minimum of 24 observations shall be recorded. Each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.

2.5 Data Reduction. Opacity shall be determined as an average of 24 consecutive observations recorded at 15-second intervals. Divide the observations recorded on the record sheet into sets of 24 consecutive observations. A set is composed of any 24 consecutive observations. Sets need not be consecutive in time and in no case shall two sets overlap. For each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24. If an applicable standard specifies an averaging time requiring more than 24 observations, calculate the average for all observations made during the specified time period. Record the average opacity on a record sheet. (See Figure 9–1 for an example.)

3. Qualifications and Testing

3.1 Certification Requirements. To receive certification as a qualified observer, a candidate must be tested and demonstrate the ability to assign opacity readings in 5 percent increments to 25 different black plumes and 25 different white plumes, with an error not to exceed 15 percent opacity on any one reading and an average error not to exceed 7.5 percent opacity in each category. Candidates shall be tested according to the procedures described in section 3.2. Smoke generators used pursuant to section 3.2 shall be equipped with a smoke meter which meets the requirements of section 3.3.

The certification shall be valid for a period of 6 months, at which time the qualification procedure must be repeated by any observer in order to retain certification.

3.2 Certification Procedure. The certification test consists of showing the candidate a complete run of 50 plumes—25 black plumes and 25 white plumes—generated by a smoke generator. Plumes within each set of 25 black and 25 white runs shall be presented in random order. The candidate assigns an opacity value to each plume and records his observation on a suitable form. At the completion of each run of 50 readings, the score of the candidate is determined. If a candidate fails to qualify, the complete run of 50 readings must be repeated in any retest. The smoke test may be administered as part of a smoke school or training program, and may be preceded by training or familiarization runs of the smoke generator during which candidates are shown black and white plumes of known opacity.

3.3 Smoke Generator Specifications. Any smoke generator used for the purposes of section 3.2 shall be equipped with a smoke meter installed to measure opacity across the diameter of the smoke generator stack. The smoke meter output shall display instack opacity based upon a pathlength equal to the stack exit diameter, on a full 0 to 100 percent chart recorder scale. The smoke meter optical design and performance shall meet the specifications shown in Table 9–1.
The smoke meter shall be calibrated as prescribed in section 3.3.1 prior to the conduct of each smoke reading test. At the completion of each test, the zero and span drift shall be checked and if the drift exceeds ±1 percent opacity, the condition shall be corrected prior to conducting any subsequent test runs. The smoke meter shall be demonstrated, at the time of installation, to meet the specifications listed in Table 9–1. This demonstration shall be repeated following any subsequent repair or replacement of the photocell or associated electronic circuitry including the chart recorder or output meter, or every 6 months, whichever occurs first.

Table 9–1—Smoke Meter Design and Performance Specifications

Parameter	Specification
a. Light source	Incandescent lamp operated at nominal rated voltage.
b. Spectral response of photocell	Photopic (daylight spectral response of the human eye—Citation 3).
c. Angle of view	15° maximum total angle.

d. Angle of projection	15° maximum total angle.
e. Calibration error	±3% opacity, maximum.
f. Zero and span drift	±1% opacity, 30 minutes.
g. Response time	5 seconds.

3.3.1 Calibration. The smoke meter is calibrated after allowing a minimum of 30 minutes warmup by alternately producing simulated opacity of 0 percent and 100 percent. When stable response at 0 percent or 100 percent is noted, the smoke meter is adjusted to produce an output of 0 percent or 100 percent, as appropriate. This calibration shall be repeated until stable 0 percent and 100 percent readings are produced without adjustment. Simulated 0 percent and 100 percent opacity values may be produced by alternately switching the power to the light source on and off while the smoke generator is not producing smoke.

3.3.2 Smoke Meter Evaluation. The smoke meter design and performance are to be evaluated as follows:

3.3.2.1 Light Source. Verify from manufacturer's data and from voltage measurements made at the lamp, as installed, that the lamp is operated within ±5 percent of the nominal rated voltage.

3.3.2.2 Spectral Response of Photocell. Verify from manufacturer's data that the photocell has a photopic response; i.e., the spectral sensitivity of the cell shall closely approximate the standard spectral-luminosity curve for photopic vision which is referenced in (b) of Table 9–1.

FIGURE 9-1
RECORD OF VISUAL DETERMINATION OF OPACITY

PAGE ___ of ___

COMPANY _____
LOCATION _____
TEST NUMBER _____
DATE _____
TYPE FACILITY _____
CONTROL DEVICE _____

HOURS OF OBSERVATION _____
OBSERVER _____
OBSERVER CERTIFICATION DATE _____
OBSERVER AFFILIATION _____
POINT OF EMISSIONS _____
HEIGHT OF DISCHARGE POINT _____

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge				
Direction from Discharge				
Height of Observation Point				
BACKGROUND DESCRIPTION				
WEATHER CONDITIONS Wind Direction				
Wind Speed				
Ambient Temperature				
SKY CONDITIONS (clear, overcast, % clouds, etc.)				
PLUME DESCRIPTION Color				
Distance Visible				
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time Start--End	Opacity Sum	Opacity Average

Readings ranged from ___ to ___ % opacity.

The source was/was not in compliance with ___ at the time evaluation was made.

Figure 9–2—Observation Record

Company	Observer	
Location	Type facility	
Test Number	Point of emissions	
Date		

Hr.	Min.	Seconds				Steam plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							
	26							
	27							
	28							

Company	Observer	
Location	Type facility	
Test Number	Point of emissions	
Date		

		Seconds				Steam plume (check if applicable)		
Hr.	**Min.**	**0**	**15**	**30**	**45**	**Attached**	**Detached**	**Comments**
	29							
	30							
	31							
	32							
	33							
	34							
	35							
	36							
	37							
	38							
	39							
	40							
	41							
	42							
	43							
	44							
	45							
	46							
	47							
	48							
	49							
	50							
	51							
	52							
	53							
	54							
	55							
	56							
	57							
	58							
	59							

3.3.2.3 Angle of View. Check construction geometry to ensure that the total angle of view of the smoke plume, as seen by the photocell, does not exceed 15°. The total angle of view may be calculated from: $\Theta = 2 \tan^{-1} d/2L$, where Θ = total angle of view; d = the sum of the photocell diameter+ the diameter of the limiting aperture; and L = the distance from the photocell to the limiting aperture. The limiting aperture is the point in the path between the photocell and the smoke plume where the angle of view is most restricted. In smoke generator smoke meters this is normally an orifice plate.

3.3.2.4 Angle of Projection. Check construction geometry to ensure that the total angle of projection of the lamp on the smoke plume does not exceed 15°. The total angle of projection may be calculated from: $\Theta = 2 \tan^{-1} d/2L$, where Θ = total angle of projection; d=the sum of the length of the lamp filament + the diameter of the limiting aperture; and L = the distance from the lamp to the limiting aperture.

3.3.2.5 Calibration Error. Using neutral-density filters of known opacity, check the error between the actual response and the theoretical linear response of the smoke meter. This check is accomplished by first calibrating the smoke meter according to 3.3.1 and then inserting a series of three neutral-density filters of nominal opacity of 20, 50, and 75 percent in the smoke meter pathlength. Filters calibrated within ±2 percent shall be used. Care should be taken when inserting the filters to prevent stray light from affecting the meter. Make a total of five nonconsecutive readings for each filter. The maximum error on any one reading shall be 3 percent opacity.

3.3.2.6 Zero and Span Drift. Determine the zero and span drift by calibrating and operating the smoke generator in a normal manner over a 1-hour period. The drift is measured by checking the zero and span at the end of this period.

3.3.2.7 Response Time. Determine the response time by producing the series of five simulated 0 percent and 100 percent opacity values and observing the time required to reach stable response. Opacity values of 0 percent and 100 percent may be simulated by alternately switching the power to the light source off and on while the smoke generator is not operating.

4. Bibliography

1. Air Pollution Control District Rules and Regulations, Los Angeles County Air Pollution Control District, Regulation IV, Prohibitions, Rule 50.

2. Weisburd, Melvin I., Field Operations and Enforcement Manual for Air, U.S. Environmental Protection Agency, Research Triangle Park, NC. APTD–1100, August 1972, pp. 4.1–4.36.

3. Condon, E.U., and Odishaw, H., Handbook of Physics, McGraw-Hill Co., New York, NY, 1958, Table 3.1, p. 6–52.

AMEND: 340-216-0090

RULE TITLE: Sources Subject to ACDPs and Fees

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating Cleaner Air Oregon table reference.

RULE TEXT:

(1) All air contaminant discharge sources listed in OAR 340-216-8010 must obtain a permit from DEQ and are subject to fees in OAR 340-216-8020.

(2) An owner or operator of a source that is required to demonstrate compliance with Cleaner Air Oregon rules under OAR 340-245-0005 through 340-245-8010 must pay the fees specified in OAR 340-216-8030.

NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the EQC under OAR 340-200-0040 with the exception of all references to toxic air contaminants and OAR chapter 340, division 245.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.040, 468A.310, 468A.315

STATUTES/OTHER IMPLEMENTED: ORS 468.065, 468A.040, 468A.310, 468A.315

AMEND: 340-218-0020

RULE TITLE: Applicability

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating table reference in 340-218-0020(5).

RULE TEXT:

(1) Except as provided in section (4), this division applies to the following sources:

(a) Any major source;

(b) Any source, including an area source, subject to a standard, limitation, or other requirement under section 111 of the FCAA;

(c) Any source, including an area source, subject to a standard or other requirement under section 112 of the FCAA, except that a source is not required to obtain a permit solely because it is subject to regulations or requirements under section 112(r) of the FCAA;

(d) Any affected source under Title IV; and

(e) Any source in a source category designated by the EQC under this rule.

(2) The owner or operator of a source with an Oregon Title V Operating Permit whose potential to emit later falls below the emission level that causes it to be a major source, and which is not otherwise required to have an Oregon Title V Operating Permit, may submit a request for revocation of the Oregon Title V Operating Permit. Granting of the request for revocation does not relieve the source from compliance with all applicable requirements or ACDP requirements.

(3) Synthetic minor sources.

(a) A source which would otherwise be a major source subject to this division may choose to become a synthetic minor source by limiting its emissions below the emission level that causes it to be a major source through limits contained in an ACDP issued by DEQ under 340 division 216.

(b) The reporting and monitoring requirements of the emission limiting conditions contained in the ACDPs of synthetic minor sources issued by DEQ under OAR 340-216 must meet the requirements of OAR 340-212-0010 through 340-212-0150 and division 214.

(c) Synthetic minor sources who request to increase their potential to emit above the major source emission rate thresholds will become subject to this division and must submit a permit application under OAR 340-218-0040 and obtain an Oregon Title V Operating Permit before increasing emissions above the major source emission rate thresholds.

(d) Synthetic minor sources that exceed the limitations on potential to emit are in violation of OAR 340-218-0020(1)(a).

(4) Source category exemptions.

(a) All sources listed in 340-218-0020(1) that are not major sources, affected sources, or solid waste incineration units required to obtain a permit under section 129(e) of the FCAA are not required to obtain a Title V permit, except non-major sources subject to a standard under section 111 or section 112 of the FCAA promulgated after July 21, 1992 are required to obtain a Title V permit unless specifically exempted from the requirement to obtain a Title V permit in section 111 or 112 standards.

(b) The following source categories are exempted from the obligation to obtain an Oregon Title V Operating Permit:

(A) All sources and source categories that would be required to obtain a permit solely because they are subject to 40 C.F.R. part 60, subpart AAA — Standards of Performance for New Residential Wood Heaters; and

(B) All sources and source categories that would be required to obtain a permit solely because they are subject to 40 C.F.R. part 61, subpart M — National Emission Standard for Hazardous Air Pollutants for Asbestos, section 61.145, Standard for Demolition and Renovation.

(c) Any source listed in OAR 340-218-0020(1) exempt from the requirement to obtain a permit under this rule may opt to apply for an Oregon Title V Operating Permit.

(5) Sources subject to this division may also be subject to OAR 340-245-0005 through 340-245-8010.

(6) Emissions units and Oregon Title V Operating Permit program sources. DEQ will include in the permit all applicable

requirements for all relevant emissions units in the Oregon Title V Operating Permit source, including any equipment used to support the major industrial group at the site.
(7) Fugitive emissions. Fugitive emissions from an Oregon Title V Operating Permit program source must be included in the permit application and the permit in the same manner as stack emissions, regardless of whether the source category in question is included in the list of sources contained in the definition of major source.
(8) Insignificant activity emissions. All emissions from insignificant activities, including categorically insignificant activities and aggregate insignificant emissions, must be included in the determination of the applicability of any requirement.
(9) Oregon Title V Operating Permit program sources that are required to obtain an ACDP, OAR 340 division 216, or a Notice of Approval, OAR 340-210-0205 through 340-210-0250, because of a Title I modification, must operate in compliance with the Oregon Title V Operating Permit until the Oregon Title V Operating Permit is revised to incorporate the ACDP or the Notice of Approval for the Title I modification.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468A.025, 468A.040, 468A.310

STATUTES/OTHER IMPLEMENTED: ORS 468A

AMEND: 340-218-0110

RULE TITLE: Permit Shield

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating table reference in 340-218-0110(5)

RULE TEXT:

(1) Except as provided in this division, DEQ must expressly include in an Oregon Title V Operating Permit a provision stating that compliance with the conditions of the permit will be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

(a) Such applicable requirements are included and are specifically identified in the permit; or

(b) DEQ, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

(2) An Oregon Title V Operating Permit that does not expressly state that a permit shield exists will be presumed not to provide such a shield.

(3) Changes made to a permit using OAR 340-218-0150(1)(h) and 340-218-0180 will be shielded.

(4) Nothing in this rule or in any Oregon Title V Operating Permit may alter or affect the following:

(a) The provisions of ORS 468.115 (enforcement in cases of emergency) and ORS 468.035;

(b) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

(c) The applicable requirements of the national acid rain program, consistent with section 408(a) of the FCAA; or

(d) The ability of DEQ to obtain information from a source under ORS 468.095 (investigatory authority, access to records).

(5) The permit shield does not apply to conditions and requirements included in a Toxic Air Contaminant Permit Addendum or included in an Oregon Title V Operating Permit under OAR 340-245-0005 through 340-245-8010.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468A.025, 468A.040, 468A.310

STATUTES/OTHER IMPLEMENTED: ORS 468A

AMEND: 340-245-0005

RULE TITLE: Purpose and Overview

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating table references and statutory authority.

RULE TEXT:

(1) This statement of purpose and overview is an aid to understanding the rules in OAR 340-245-0010 through 340-245-8010 that follow, and is not for the purpose of regulation or compliance.

(2) Purpose. The purpose of Oregon's risk-based toxic air contaminant permitting program, known as Cleaner Air Oregon, is to:

(a) Prioritize and protect the health and well-being of all Oregonians with a special focus on sensitive populations such as children;

(b) Analyze public health risk due to toxic air contaminant emissions from industrial and commercial sources based on verified science and data;

(c) Consider similar regulations in other states and jurisdictions and use a science-based, consistent and transparent process for communicating and addressing risks from industrial and commercial emissions of toxic air contaminants, provide regulatory predictability to businesses and the communities they are a part of; and

(d) Reduce exposure to industrial and commercial toxic air contaminant emissions while supporting an environment where businesses and communities can thrive.

(3) Overview.

(a) OAR 340-245-0010, Applicability and Jurisdiction, OAR 340-245-0020, Definitions, and OAR 340- 245-0022, Abbreviations and Acronyms, describe which sources the risk-based toxic air contaminant permitting program applies to and specifies definitions, abbreviations and acronyms to be used in the program;

(b) OAR 340-245-0030, Submittal and Payment Deadlines, provides the deadlines by which owners or operators must submit risk assessment compliance information when required by DEQ under this division. That rule generally provides owners or operators more time to submit the more complex assessments;

(c) OAR 340-245-0040, Emissions Inventory, authorizes DEQ to require a source to submit an inventory of all of its toxic air contaminant emissions to be used in a risk assessment and to submit periodic emissions inventory updates;

(d) OAR 340-245-0050, Risk Assessment Procedures, includes requirements and procedures for the owners and operators of sources to undertake any of the four levels of risk assessment to demonstrate compliance and determine what requirements apply. The first level of risk assessment is a conservative estimate that is likely to overestimate risk. As the levels progress from Level 1 to Level 4, the assessments become more complex but also provide increasingly more site-specific and refined risk estimates. An owner or operator can choose to start with any level of risk assessment;

(e) OAR 340-245-0060, Toxic Emissions Units, explains how TEUs are analyzed and regulated in the context of assessing and regulating risk from an entire source. This rule includes the criteria for a TEU to be designated exempt or aggregated because it poses very low risk and the requirements for approval of new and modified TEUs;

(f) OAR 340-245-0100, Toxic Air Contaminant Permit Addenda, includes the procedural requirements for obtaining a permit addendum or a new operating permit under these rules. A Toxic Air Contaminant Permit Addendum will amend the source's Air Contaminant Discharge Permit or Title V Operating Permit until the requirements in the addendum can be incorporated into the source's operating permit, but will remain separate for a source that has a General Air Contaminant Discharge Permit;

(g) OAR 340-245-0110, Source Risk Limits, explains how risk limits will be set in Toxic Air Contaminant Permit Addenda or in operating permits with conditions required under this division;

(h) OAR 340-245-0120, Community Engagement, contains requirements for community engagement meetings and other aspects of community engagement;

(i) OAR 340-245-0130, Risk Reduction Plan Requirements, specifies how an owner or operator of an existing source

must develop a plan to reduce risk, if required to do so, because the source risk exceeds the TBACT Level or the Risk Reduction Level. Risk can be reduced using a variety of methods as long as they are enforceable as permit conditions and achieve the required level of risk reduction. Provisions for Voluntary Risk Reduction are included in this rule;
(j) OAR 340-245-0140, Pollution Prevention, explains how the owner or operator of a source must perform a pollution prevention analysis when required under OAR 340-245-0130;
(k) OAR 340-245-0150, Postponement of Risk Reduction, specifies how an owner or operator of a source may request postponement of risk reduction due to financial hardship;
(l) OAR 340-245-0200, Risk Estimates, explains how the owner or operator of a source must perform the calculations required in this division. This rule explains how calculations should be rounded to evaluate compliance with Source Risk Limits;
(m) OAR 340-245-0210, Modeling and Risk Assessment Work Plan Requirements, contains air quality modeling and work plan requirements for owners or operators of sources that are required to assess risk;
(n) OAR 340-245-0220, TBACT and TLAER Procedures, explains how the owner or operator of a source must perform, respectively, a Toxics Best Available Control Technology or Toxics Lowest Achievable Emission Rate analysis;
(o) OAR 340-245-0230, Toxic Air Contaminant Monitoring Requirements, allows an owner or operator of a source to perform air monitoring to determine actual concentrations of toxic air contaminants in the ambient air around a source;
(p) OAR 340-245-0310 Process for Updating Risk-Based Concentrations and 340-245-0320, Standards and Criteria for Noncancer Risk Action Levels for Existing Sources, describe the process of how the RBCs may be updated and assignment of hazard index values based on health effects;
(q) OAR 340-245-0400, Cleaner Air Oregon Fees, specifies the permitting fees that apply to sources subject to the rules in this division; and
(r) OAR 340-245-8010 Tables 1-3, include the established Risk Action Levels, Risk-Based Concentrations and the Level 1 Risk Assessment Dispersion Factor Tables.
(4) The long-term goal of Cleaner Air Oregon is to achieve a 50% reduction in the number of existing sources posing either an excess cancer risk of more than 25 in a million or a Hazard Index of more than 1 by the year 2034.
(5) This program supplements requirements in OAR chapter 340, division 244, Oregon Federal Hazardous Air Pollutant Program, and division 246, Oregon State Toxic Air Contaminant Program. This program includes four levels of risk assessment and allows sources to choose any level of assessment to assess risk.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, Or Laws 2018, ch. 102, § 7, 468A.135, 468A.337, 468A.345

STATUTES/OTHER IMPLEMENTED: ORS 468.065, 468A.010, 468A.015, 468A.025, 468A.035, 468A.040, 468A.050, 468A.070, 468A.155, Or Laws 2018, ch. 102, § 7, 468A.337, 468A.345, 468A.335, 468A.343

AMEND: 340-245-0010

RULE TITLE: Applicability and Jurisdiction

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating statutory authority.

RULE TEXT:

(1) This division applies in all areas of the state and to all sources, excluding sources located on tribal and federal lands that are not subject to regulation by DEQ.

(2) DEQ may consult with OHA as necessary on the implementation of the rules in this division.

(3) Subject to the requirements in this division and OAR 340-200-0010(3), Lane Regional Air Protection Agency is designated by the EQC to implement the rules in this division within its area of jurisdiction.

(4) This division applies to entire sources as well as to individual TEUs.

(5) The owner or operator of a source subject to this division may also be subject to other air quality rules including but not limited to those listed below, either in relation to its obligations under this division or independent of this division.

(a) OAR chapter 340, division 209, Public Participation;

(b) OAR chapter 340, division 210, Stationary Source Notification Requirements;

(c) OAR chapter 340, division 212, Stationary Source Testing and Monitoring;

(d) OAR chapter 340, division 214, Stationary Source Reporting Requirements;

(e) OAR chapter 340, division 216, Air Contaminant Discharge Permits, including fees;

(f) OAR chapter 340, division 218, Oregon Title V Operating Permits;

(g) OAR chapter 340, division 220, Oregon Title V Operating Permit Fees;

(h) OAR chapter 340, division 224, New Source Review;

(i) OAR chapter 340, division 226, General Emission Standards;

(j) OAR chapter 340, division 244, Oregon Federal Hazardous Air Pollutant Program; and

(k) OAR chapter 340, division 246, Oregon State Toxic Air Contaminant Program.

(6) Disclaimer. Compliance with this division does not authorize the emission of any toxic air contaminant in violation of any other federal, state, or local law or regulation, or exempt the owner or operator from any other applicable law or regulation.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337, 468A.345

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.345, 468A.343, 468A.335

AMEND: 340-245-0020

RULE TITLE: Definitions

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Clarifying definitions and updating statutory authority.

RULE TEXT:

The definitions in OAR 340-200-0020, 340-204-0010, 340-246-0030, 340-247-0020 and this rule apply to this division. If the same term is defined in more than one of these rules, then the definitions in this division take precedence, followed by the definitions in OAR 340-200-0020, followed by the definitions in OAR 340-247-0020, followed by the definitions in OAR 340-246-0030, and finally the definitions in OAR 340-204-0010.

(1) “ABEL” means a computer model developed by EPA that evaluates a corporation's or partnership's ability to afford compliance costs, cleanup costs or civil penalties. ABEL is available upon request from DEQ.

(2) “Actual toxic air contaminant emission rate” means:

(a) For an existing source, the toxic air contaminant emissions rate from the source’s actual production; or

(b) For a new or reconstructed source, the toxic air contaminant emissions rate from the reasonably anticipated actual production by the new or reconstructed source.

(3) “Acute” means evaluated over a 24-hour period or day.

(4) “Acute exposure location” means an exposure location outside the boundary of a source being modeled for the maximum daily average concentrations of a toxic air contaminant, and that is:

(a) A chronic exposure location; or

(b) A location where people may spend several hours of one day.

(5) “AERMOD” is the EPA approved steady-state air dispersion model, specified in 40 CFR part 51, Appendix W, "Guidelines on Air Quality Models (Revised)," that is the primary model used for the analysis of ambient concentrations for regulatory compliance. AERMOD uses a fully developed set of meteorological and terrain data. AERMOD stands for American Meteorological Society/Environmental Protection Agency Regulatory Model. AERMOD is available upon request from DEQ.

(6) “AERSCREEN” is the EPA approved screening dispersion model, specified in 40 CFR part 51, Appendix W, "Guidelines on Air Quality Models (Revised)," based on AERMOD. The model uses conservative screening meteorology to produce estimates of "worst-case" concentration estimates that are equal to or greater than the estimates produced by AERMOD. AERSCREEN stands for American Meteorological Society/Environmental Protection Agency Regulatory Screening Model. AERSCREEN is available upon request from DEQ.

(7) “Aggregate TEU Level” means the risk action levels, as identified under that name in OAR 340-245- 8010 Table 1, that aggregated TEUs may not exceed, based on a calculation of the cumulative risk of all aggregated TEUs.

(8) “Aggregated TEUs” means all of a source’s TEUs that are identified by an owner or operator with total cumulative risk less than the Aggregate TEU Level. A TEU that is identified as one of the aggregated TEUs is referred to in the singular as an aggregated TEU.

(9) “Area of impact” means the geographic area where risk is determined to be above the applicable Risk Action Level, and is determined by AERMOD or other comparable model approved by DEQ.

(10) “Chronic” means evaluated over a one-year period or longer.

(11) “Chronic exposure location” means an exposure location outside the boundary of a source being modeled for annual average concentrations of a toxic air contaminant, and can be either:

(a) A residential exposure location; or

(b) A nonresidential exposure location.

(12) “Community Engagement Level” means the risk action levels, as identified under that name in OAR 340-245-8010 Table 1, at which DEQ will conduct community engagement.

(13) “Construction permit” means a Construction Air Contaminant Discharge Permit issued under OAR chapter 340, division 216, or a Standard Air Contaminant Discharge Permit used for approval of Type 3 or 4 changes under OAR

chapter 340, division 210.
(14) “De minimis source” means a source whose excess cancer risk, chronic noncancer risk and acute noncancer risk estimates are each less than or equal to the Source Permit Level in OAR 340-245-8010 Table 1 when calculated based on the source’s capacity, as determined under OAR 340-245-0050(7).
(15) “DEQ notice date” means the date that DEQ sends a notice to an owner or operator that a risk assessment is required.
(16) “Environmental Justice” means equal protection from environmental and health hazards, and meaningful public participation in decisions that affect the environment in which people live, work, learn, practice spirituality, and play. Environmental Justice communities include minority and low-income communities, tribal communities, and other communities traditionally underrepresented in the public process.
(17) “Excess cancer risk” means the probability of developing cancer resulting from exposure to toxic air contaminant emissions from a TEU or an entire source under an applicable exposure scenario, over and above the background rate of cancer. Excess cancer risk is expressed in terms of “X” in a million, and means that approximately “X” number of additional cases of cancer would be expected in a population of one million people subject to the applicable exposure scenario.
(18) “Exempt source” means a source at which all TEUs are exempt TEUs or a source that has no TEUs that emit toxic air contaminants, as determined under OAR 340-245-0050(6).
(19) “Exempt TEU” means a TEU that DEQ has determined is exempt under OAR 340-245-0060(3). An exempt TEU is not required to comply with any other requirements of this division, other than those applicable to qualify as an exempt TEU and OAR 340-245-0060(4)(c)(A).
(20) “Existing source” means a source that:
(a) Commenced construction before November 16, 2018; or
(b) Submitted all necessary applications to DEQ under OAR 340 divisions 210 or 216 before November 16, 2018, and all such applications were deemed complete by DEQ.
(21) “Existing TEU” means a TEU that is not a new or modified TEU.
(22) “Exposure location” means a location where people, including sensitive populations, actually live or normally congregate and will be exposed to a toxic air contaminant present in the air, and thus be the location of an air quality modeling receptor at which toxic air contaminant concentrations and risk are evaluated. Exposure locations are associated with exposure scenarios and identified based on allowed land use zoning, except as allowed under OAR 340-245-0210(1)(a)(F) or when DEQ has sufficient information to determine that an area is being used in a manner contrary to its land use zoning.
(23) “Exposure scenario” means a set of assumptions about how a population is exposed to toxic air contaminants. Included in the assumptions are the type of people exposed (e.g., children or adults), and the frequency and duration of exposure associated with the scenario (e.g., residential or occupational use). Exposure scenarios are associated with exposure locations (e.g., nonresidential child).
(24) “Fixed capital cost” means the capital needed to purchase and construct all the depreciable components of a source.
(25) “Hazard Index number” or “Hazard Index,” as defined in Oregon Laws 2018, chapter 102, section 2, means a number equal to the sum of the hazard quotients attributable to toxic air contaminants that have noncancer effects on the same target organs or organ systems.
(26) “Hazard quotient,” as defined in Oregon Laws 2018, chapter 102, section 2, means a calculated numerical value that is used to evaluate noncancer health risk from exposure to a single toxic air contaminant. The calculated numerical value is the ratio of the air concentration of a toxic air contaminant to the noncancer Risk-Based Concentration at which no serious adverse human health effects are expected to occur.
(27) “Immediate Curtailment Level” means the risk action levels, as identified under that name in OAR 340-245-8010 Table 1, at which DEQ will require immediate risk reduction as provided in OAR 340-245-0130(7).
(28) “INDIPAY” means a computer model developed by EPA that evaluates an individual's ability to afford compliance costs, cleanup costs or civil penalties. INDIPAY is available upon request from DEQ.

(29) “Inhalation Unit Risk” means the upper-bound lifetime excess cancer risk estimated to result from continuous exposure to a toxic air contaminant at a concentration of 1 µg/m³ in air. The interpretation of inhalation unit risk would be as follows: if unit risk = 2 × 10 per µg/m³, then two excess cancer cases (upper bound estimate) are expected to develop per one million people if exposed daily for 70 years to one microgram of the toxic air contaminant per cubic meter of air.
(30) “Multipathway” means consideration of exposure pathways in addition to inhalation of chemicals in air, such as incidental ingestion and dermal contact with toxic air contaminants migrating to soil and water.
(31) “MUNIPAY” means a computer model developed by EPA that evaluates a municipality's or regional utility's ability to afford compliance costs, cleanup costs or civil penalties. MUNIPAY is available upon request from DEQ.
(32) “New or modified TEU” means:
(a) A TEU at an existing source where one of the following criteria is met:
(A) Approval to construct or operate under OAR 340-210-0205 through 340-210-0250 was not required for the TEU, and construction commenced on or after November 16, 2018;
(B) Approval to construct or operate under OAR 340-210-0205 through 340-210-0250 is or was required for the TEU, and the owner or operator submitted the application on or after November 16, 2018; or
(C) Approval to construct or operate under OAR 340-210-0205 through 340-210-0250 was required for the TEU, but the owner or operator did not obtain the approval as required, and construction commenced on or after the following, as applicable:
(i) For Type 1 changes under OAR 340-210-0225, 10 days before November 16, 2018;
(ii) For Type 2 changes under OAR 340-210-0225, 60 days before November 16, 2018;
(iii) For Type 3 changes under OAR 340-210-0225, 120 days before November 16, 2018; and
(iv) For Type 4 changes under OAR 340-210-0225, 240 days before November 16, 2018;
(b) With respect to a modification to a TEU, approval to construct or operate refers to approval to construct or operate the modification.
(33) “New source” means a source that:
(a) Is not an existing source; or
(b) Was an existing source that has moved to a new location that is not contiguous or adjacent to its original facility location on or after <enter effective date of rules>, excluding existing sources permitted as portable sources.
(34) “Noncancer risk” means the chance of noncancer harmful effects to human health resulting from exposure to toxic air contaminant emissions from a TEU or an entire source under an applicable exposure scenario. There are two types of noncancer risk, chronic and acute. Noncancer risk is expressed numerically using the Hazard Index. Below a Hazard Index of 1, adverse noncancer health effects are unlikely, and above a Hazard Index of 1, adverse noncancer health effects become more likely.
(35) “Nonresident” means people who regularly spend time at a location but do not reside there. This includes, but is not limited to, children attending schools and daycare facilities and adults at workplaces.
(36) “Nonresidential exposure location” means an exposure location outside the boundary of a source where people may reasonably be present for a few hours several days per week, possibly over a period of several years, and that is zoned for uses that do not allow residential use. A nonresidential exposure location includes nonresidential worker exposure locations and nonresidential child exposure locations.
(37) “Notification area” means the area of impact or the area within a distance of 1.5 kilometers of a source, whichever is greater.
(38) “Operating permit” means a General, Basic, Simple or Standard Air Contaminant Discharge Permit under OAR chapter 340, division 216 or an Oregon Title V Operating Permit under OAR chapter 340, division 218.
(39) “Owner or operator” means any person who owns, leases, operates, controls, or supervises a stationary source.
(40) “Permit Denial Level” means the risk action levels, as identified under that name in OAR 340-245- 8010 Table 1, at which DEQ will not approve an operating permit for a new or reconstructed source, as provided in OAR 340-245-0100(5).

(41) “Pollution Prevention” means any practice that reduces, eliminates, or prevents pollution at its source, as described in OAR 340-245-0140.
(42) “Reconstructed,” as defined in ORS 468A.335(5), means an individual project is constructed at an air contamination source that, once constructed, increases the hourly capacity of any changed equipment to emit, and where the fixed capital cost of new components exceeds 50 percent of the fixed capital cost that would have been required to construct a comparable new source.
(43) “Residential exposure location” means an exposure location outside the boundary of a source where people may reasonably be present for most hours of each day over a period of many years, including individual houses and areas that are zoned to allow residential use either exclusively or in conjunction with other uses.
(44) “Risk” means the chance of harmful effects to human health resulting from exposure to a toxic air contaminant emitted from a TEU or an entire source under an applicable exposure scenario. For the purpose of these rules, risk includes three types of risk: excess cancer risk, chronic noncancer risk, and acute noncancer risk.
(45) “Risk Action Level” as identified under OAR 340-245-8010 Table 1, means the levels of risk posed by a source or a TEU at which particular requirements of these rules will apply, or the owner or operator will be required to take specific action, depending on the risk posed to the area of impact as described in these rules.
(46) “Risk assessment” means a procedure that identifies toxic air contaminant emissions from a source or a TEU and calculates the risk from those emissions. This term specifically refers to the procedures under OAR 340-245-0050(8) through (11) and may include the results of air monitoring as allowed under OAR 340-245-0050(1)(c)(B). The procedures are designated Level 1 through Level 4, respectively, with complexity of a risk assessment increasing as the level numeration increases, (i.e., a Level 1 Risk Assessment is the simplest and a Level 4 Risk Assessment is the most complex).
(47) “Risk Determination Ratio” means the calculated value used to determine compliance with noncancer Risk Action Levels for existing sources as determined under OAR 340-245-0200.
(48) “Risk limit” means a condition or requirement in a permit or permit addendum that serves to limit the risk from a source or part of a source. Such conditions or requirements may include, but are not restricted to, limits on risk from the source or part of a source, limits on emissions of one or more toxic air contaminants, limits on emissions from one or more TEUs, or limits on source operation.
(49) “Risk-Based Concentration” or “RBC” means the concentration of a toxic air contaminant listed in OAR 340-245-8010 Table 2 that, for the designated exposure scenario, results in an excess cancer risk of one in one million, or a noncancer hazard quotient of one for either chronic exposure or acute daily exposure.
(50) “Risk Reduction Level” means the risk action levels, as identified under that name in OAR 340-245- 8010 Table 1, at which the owner or operator of an existing source will be required to have an approved Risk Reduction Plan under OAR 340-245-0130.
(51) “Sensitive Population” means people with biological traits that may magnify the harmful effects of toxic air contaminant exposures that include individuals undergoing rapid rates of physiological change, such as children, pregnant women and their fetuses, and individuals with impaired physiological conditions, such as elderly people with existing diseases such as heart disease or asthma. Other sensitive populations include those with lower levels of protective biological mechanisms due to genetic factors and those with increased exposure rates.
(52) “Significant TEU” means a TEU that is not an exempt TEU and is not an aggregated TEU.
(53) “Source Permit Level” means the risk action levels, as identified under that name in OAR 340-245- 8010 Table 1.
(54) “Source risk” means the cumulative risk from all toxic air contaminants emitted by all significant and aggregated TEUs at a source.
(55) “TBACT Level” means the risk action levels, as identified under that name in OAR 340-245-8010 Table 1, below which an existing source will be considered to be in compliance with these rules without having to further reduce its risk, and above which will require the owner or operator of the existing source either to demonstrate that its significant TEUs meet TBACT or to further reduce risk from the source, under OAR 340-245-0050(1)(c).
(56) “TLAER Level” means the risk action levels, as identified under that name in OAR 340-245-8010 Table 1, below

which a new or reconstructed source will be considered to be in compliance with these rules, and above which will require the owner or operator of the new or reconstructed source to demonstrate that its significant TEUs meet TLAER, under OAR 340-245-0050(2)(b).

(57) “Toxic Air Contaminant Permit Addendum” means written authorization that incorporates the requirements under this division into a permit by amending an Air Contaminant Discharge Permit or a Title V Operating Permit, or in the case of a source assigned to a General Air Contaminant Discharge Permit, means written authorization imposing requirements under this division as additional source- specific permit conditions.

(58) “Toxics Best Available Control Technology” or “TBACT” means a toxic air contaminant emission limitation or emission control measure or measures based on the maximum degree of reduction of toxic air contaminants that is feasible, determined using the procedures in OAR 340-245-0220.

(59) “Toxics emissions unit” or “TEU” means an emissions unit, or one or more individual emissions producing activities, that emit or have the potential to emit any toxic air contaminant, as designated under OAR 340-245-0060.

(60) “Toxics Lowest Achievable Emission Rate” or “TLAER” means that rate of emissions which reflects the most stringent emission limitation which is achieved in practice by a source in the same class or category of sources as the proposed source, determined using the procedures in OAR 340-245-0220.

STATUTORY/OTHER AUTHORITY: ORS 468.020, ORS 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, Or Laws 2018, ch. 102, § 7, 468A.135, 468A.337, 468A.345

STATUTES/OTHER IMPLEMENTED: ORS 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, Or Laws 2018, ch. 102, § 7, 468A.337, 468A.345, 468A.335, 468A.343

AMEND: 340-245-0022

RULE TITLE: Abbreviations and Acronyms

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating statutory authority.

RULE TEXT:

As used in this division:

(1) “HI” means Hazard Index.

(2) “IUR” means Inhalation Unit Risk.

(3) “m3” means cubic meter.

(4) “NESHAP” means National Emission Standards for Hazardous Air Pollutants, established by the Environmental Protection Agency under section 112 of the Clean Air Act, 42 U.S.C. §7412.

(5) “NSPS” means New Source Performance Standards, established by the Environmental Protection Agency under section 111(b) of the Clean Air Act, 42 U.S.C. §7411(b).

(6) “OHA” means Oregon Health Authority.

(7) “PTE” means Potential to Emit.

(8) “RBC” means Risk-Based Concentration.

(9) “TBACT” means Toxics Best Available Control Technology.

(10) “TEU” means Toxics Emissions Unit.

(11) “TLAER” means Toxics Lowest Achievable Emission Rate.

(12) “TRV” means Toxicity Reference Value.

(13) “µg” means microgram.

(14) “g/m3” means micrograms per cubic meter.

As used in this division:

(1) “HI” means Hazard Index.

(2) “IUR” means Inhalation Unit Risk.

(3) “m3” means cubic meter.

(4) “NESHAP” means National Emission Standards for Hazardous Air Pollutants, established by the Environmental Protection Agency under section 112 of the Clean Air Act, 42 U.S.C. §7412.

(5) “NSPS” means New Source Performance Standards, established by the Environmental Protection Agency under section 111(b) of the Clean Air Act, 42 U.S.C. §7411(b).

(6) “OHA” means Oregon Health Authority.

(7) “PTE” means Potential to Emit.

(8) “RBC” means Risk-Based Concentration.

(9) “TBACT” means Toxics Best Available Control Technology.

(10) “TEU” means Toxics Emissions Unit.

(11) “TLAER” means Toxics Lowest Achievable Emission Rate.

(12) “TRV” means Toxicity Reference Value.

(13) “µg” means microgram.

(14) “g/m3” means micrograms per cubic meter.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337, 468A.345

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.345, 468A.335, 468A.343

AMEND: 340-245-0030

RULE TITLE: Submittal and Payment Deadlines

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating references and statutory authority.

RULE TEXT:

(1) When required to demonstrate compliance with OAR 340-245-0040, 340-245-0050, 340-245-0060, or 340-245-0100 the owner or operator of a source must submit to DEQ all information and specific activity fees under OAR 340-216-8030 Table 3 required by, and by the deadlines specified in, subsections (a) through (h), as applicable, except as allowed under section (3). The owner or operator of a new or reconstructed source must also submit the following information but the time deadlines in subsections (a) through h) do not apply.

(a)(A) An emissions inventory under OAR 340-245-0040 that will be used in the risk assessment must be submitted to DEQ no later than 90 days after the DEQ notice date; and

(B) For an existing source, if the owner or operator is submitting DEQ-approved source test data to supplement the emissions inventory, the updated emissions inventory must be submitted to DEQ no later than 150 days after the DEQ notice date. The owner or operator must also submit a modeling protocol and Level 3 or Level 4 Risk Assessment work plan prior to or concurrent with the submission of source test data, if applicable;

(b) The modeling protocol under OAR 340-245-0210 must be submitted to DEQ no later than 30 days after receiving DEQ approval of the emissions inventory under subsection (a);

(c) The Level 3 or Level 4 Risk Assessment work plan under OAR 340-245-0210 must be submitted to DEQ no later than 60 days after receiving DEQ approval of the updated emissions inventory under subsection (a);

(d) Risk Assessments required under OAR 340-245-0050(8) through (11) must be submitted to DEQ in accordance with the following deadlines:

(i) A Level 1 or Level 2 Risk Assessment under OAR 340-245-0050(8) or (9) must be submitted to DEQ no later than 60 days after DEQ approval of the modeling protocol required under subsection (b);

(ii) A Level 3 Risk Assessment under OAR 340-245-0050(10) must be submitted to DEQ no later than 120 days after DEQ approval of the Level 3 Risk Assessment work plan required under subsection (c);

(iii) A Level 4 Risk Assessment under OAR 340-245-0050(11) must be submitted to DEQ no later than 150 days after DEQ approval of the Level 4 Risk Assessment work plan required under subsection (c);

(iv) In the case where DEQ has performed a preliminary risk assessment based on the approved emissions inventory, modeling protocol, and Risk Assessment work plan (if applicable) required under OAR 340-245-0050(1), and has determined that risk from an existing source may exceed the Immediate Curtailment Level, DEQ may:

(I) Reduce the Risk Assessment submittal deadline to a period of no less than 30 days for chronic risk or 15 days for acute risk, unless a shorter deadline is agreed to in writing between DEQ and the source; or

(II) Require submittal of information, by a date certain, sufficient to demonstrate that the source risk will not exceed the Immediate Curtailment Level, including but not limited to a revised emissions inventory.

(e) If risk from the source is greater than the Immediate Curtailment Level, a report describing the immediate action taken by the owner or operator to reduce risk to below the Immediate Curtailment Level as required under OAR 340-245-0130(7) must be submitted to DEQ no later than seven days after DEQ approval of a Level 3 Risk Assessment or a Level 4 Risk Assessment under subsection (d)(ii), (iii), or (iv);

(f) A Toxic Air Contaminant Monitoring Plan under OAR 340-245-0230 and an application for a Toxic Air Contaminant Permit Addendum under OAR 340-245-0100 must be submitted to DEQ no later than 30 days after DEQ approval of a Level 3 Risk Assessment or a Level 4 Risk Assessment under subsection (d)(ii), (iii), or (iv);

(g) A Risk Reduction Plan under OAR 340-245-0130 and an application for a Toxic Air Contaminant Permit Addendum under OAR 340-245-0100 must be submitted to DEQ no later than 30 days after DEQ approval of a Level 3 or a Level 4 Risk Assessment under subsection (d)(ii), (iii), or (iv); and

(h) For owners or operators that are not required to submit a Risk Reduction Plan and who do not choose to perform air

monitoring, an application for a Toxic Air Contaminant Permit Addendum under OAR 340-245-0100 must be submitted to DEQ within 30 days after DEQ approval of any level of risk assessment, whichever is applicable.
(2) Upon receipt of a submittal described in section (1), DEQ will review the submittal and if DEQ determines that any additional information, corrections, or updates are required in order to approve the submittal, then DEQ will provide the owner or operator with a written request to provide such information by a date certain.
(3) An owner or operator may request an extension of time from a deadline established in section (1) or section (2) by providing DEQ with a written request no fewer than 15 days prior to the submittal deadline. DEQ may grant an extension based on the following criteria:
(a) The owner or operator has demonstrated progress in completing the submittal; and
(b) A delay is necessary, for good cause shown by the owner or operator, related to obtaining more accurate or new data, performing additional analyses, or addressing changes in operations or other key parameters, any of which are likely to have a substantive impact on the outcomes of the submittal.
(4) If DEQ determines it is not able to approve the owner or operator's submittal, or if the owner or operator does not timely provide additional information or corrections requested by DEQ, then in addition to any other remedies available, DEQ may:
(a) With sufficient factual basis, modify the information provided by the owner or operator, approve it as modified, and the owner or operator must pay the document modification fee in OAR 340-216-8030 Table 3; or
(b) Inform the owner or operator of the deficiency, and provide the owner or operator with a revised deadline to submit the needed information.
(5) Recordkeeping. The owner or operator of a source that provides DEQ with any information related to a risk assessment completed under this rule must retain all of its records related to the risk assessment for five years from the date the information is submitted to DEQ.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337, 468A.345

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.345, 468A.335, 468A.343

AMEND: 340-245-0040

RULE TITLE: Emissions Inventory

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Adding more detail for what is required when preforming an emissions inventory. Updating statutory authority.

RULE TEXT:

(1) Individual emissions inventories for risk assessment of sources. New sources must submit an emissions inventory as part of the permit application. DEQ may also require the owner or operator of any existing permitted or unpermitted source to submit an emissions inventory for the purpose of assessing risk. These emissions inventories must include all toxic air contaminants emitted by the source listed in OAR 340-247-8010 Table 1. The owner or operator must assess risk from the toxic air contaminants in OAR 340-247-8010 Table 2. For existing sources, the owner or operator must submit the emissions inventory electronically to DEQ no later than 90 days after the DEQ notice date unless DEQ allows additional time under OAR 340-245-0030.

(2) Periodic state-wide emissions inventory.

(a) DEQ may require the owners and operators of all permitted and unpermitted sources to submit an updated toxic air contaminant emissions inventory of all toxic air contaminants emitted by the source listed in OAR 340-247-8010 Table 1. The reporting year will generally correspond with EPA's National Emissions Inventory reporting year (2020, 2023, 2026, etc.);

(b) The owner or operator must submit its updated emissions inventory electronically to DEQ no later than 60 days after the date that DEQ sends a written request by electronic mail or regular U.S. mail, to the owner or operator, unless DEQ allows additional time under OAR 340-245-0030; and

(3) Emissions inventory revision.

DEQ may also require the owner or operator of a source that has previously submitted a toxic air contaminant emissions inventory under section (1) or (2) to submit an updated emissions inventory if DEQ discovers additional information that indicates that the source's emissions have changed since it completed its most recent emissions inventory.

(4) Emissions inventory requirements.

(a) When required to submit an emissions inventory, the owner or operator must submit:

(A) A list of TEUs that emit toxic air contaminants. The owner or operator must include exempt TEUs but does not have to calculate toxic air contaminant emissions from the exempt TEUs. The list of TEUs that emit toxic air contaminants should not be limited to what is listed in a source's operating permit but should include all operations at the source that emit toxic air contaminants;

(B) A list of all activities used to calculate toxic air contaminant emissions, such as production rates, fuel consumption, and material usage, for each TEU for the following:

(i) For an emissions inventory required under section (1), production activities and usage, as applicable, based on the following:

(I) For existing sources, actual annual and maximum daily production activities and usage, as applicable, in the calendar year preceding the year DEQ's written request is made;

(II) For all sources, potential annual and maximum daily production activities and usage, as applicable, that are used to calculate the Source Risk Limit if the owner or operator chooses to be permitted based on a requested PTE or risk limit; or

(III) For all sources, potential annual and maximum daily production activities and usage, as applicable, based on capacity that is used to prove the source is de minimis if the owner or operator chooses to be permitted as a de minimis source;

(ii) For an emissions inventory required under section (2), the actual production activities and usage, as applicable, in the calendar year preceding the year DEQ's written request is made, or for new or reconstructed sources, the reasonably

anticipated actual production and usage, as applicable.
(C) Material balance information using Safety Data Sheets (formerly Material Safety Data Sheets) and Technical Data Sheets, as applicable, for materials used in any process; and
(D) Operating schedule (hours/day, days/year, seasonal variability) for the source, including schedules for each TEU, if different, for the calendar year preceding the year DEQ's written request is made and the year based on a requested PTE or risk limit;
(b) Owners or operators of sources with Title V, Standard and Simple Air Contaminant Discharge Permits, and unpermitted sources when DEQ so requires, must also submit:
(A) A list of all toxic air contaminants emitted by the source;
(B) The amount of each toxic air contaminant listed in OAR 340-247-8010 Table 1 emitted from each TEU, reported as both maximum mass emitted per day and per year, with the emission factors used or material balance information, as appropriate, for the following:
(i) For an emissions inventory required under section (1), emissions based on the following, and including startup and shutdown emissions for sources required to do so under OAR 340-214-0310:
(I) For an existing source, actual emissions used to calculate the Source Risk Limit if the owner or operator chooses to be permitted based on actual emissions;
(II) For all sources, requested PTE or risk limit used to calculate the Source Risk Limit if the owner or operator chooses to be permitted based on a requested PTE or risk limit; or
(III) For all sources, capacity that is used to prove the source is de minimis if the owner or operator chooses to be permitted as a de minimis source;
(ii) For an emissions inventory required under section (1), maximum daily production. The owner or operator must use knowledge of process to calculate the maximum daily emissions; and
(iii) For an emissions inventory required under section (2), the actual emissions for the calendar year preceding the year DEQ's written request is made, or for new or reconstructed sources, emissions based on the reasonably anticipated actual production or usage; and
(C) All supplementary materials required to verify the calculated emissions as submitted in an emissions inventory under this rule, including but not limited to:
(i) Detailed process flow diagrams for all emissions producing activities, including expected points of all fugitive and non-fugitive emissions and air pollution control devices;
(ii) The name of each resource used to obtain toxic air contaminant emission factors (e.g., AP-42, WebFIRE, California Air Toxic Emission Factors, or source test data);
(iii) Methodologies used to calculate emissions, including all formulas and assumptions along with the supporting technical documentation (e.g., environmental data sheets, safety data sheets, or engineering estimates);
(iv) Continuous emissions monitoring data that meets data sufficiency requirements as required under the Continuous Monitoring Manual in OAR 340-200-0035;
(v) Technical documentation related to air pollution control device operation and efficiency (e.g., manufacturer or source test data); and
(vi) Source test data sufficient to verify emission factors (e.g., source test reports).
(5) Review of toxic air contaminant emissions inventory reports. DEQ shall use the procedures in OAR 340-245-0030 to review any emissions inventory in determining its completeness, consider extensions requests, and request additional information, if needed.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.335

AMEND: 340-245-0050

RULE TITLE: Risk Assessment Procedures

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating table references, cleaning up rule language and updating statutory authority.

RULE TEXT:

(1) Existing source.

(a) When notified in writing by DEQ, at DEQ's discretion, the owner or operator of an existing source with an operating permit must either demonstrate that it is an exempt source by following the procedure in section (6) or:

(A) Assess risk from the source using any of the Level 1 through Level 4 Risk Assessment procedures in sections (8) through (11);

(B) Assess risk from the source using the emissions inventory submitted under OAR 340-245-0040(1); and

(C) Follow the applicable calculation procedures under OAR 340-245-0200.

(b) The owner or operator proposing an action listed in OAR 240-224-0010(1) or (2) that requires compliance under OAR chapter 340, division 224, "New Source Review" must submit an emissions inventory under OAR 340-245-0040(1) for the proposed modifications or operational changes;

(A) The emissions inventory must be approved by DEQ before the New Source Review application can be deemed complete under OAR 340-224-0030(2); and

(B) The emissions inventory submittal deadline for existing sources in OAR 340-245-0030(1)(a)(A) does not apply.

(c) The owner or operator must demonstrate compliance with paragraph (A), (B), (C) or (D), and also comply with paragraph (E), if applicable.

(A) The owner or operator must demonstrate that the source is a de minimis source by following the procedure in section (7), or demonstrate that the risk from the source is less than or equal to the TBACT Level. The owner or operator of a source whose risk is less than or equal to the TBACT Level must apply for a Toxic Air Contaminant Permit Addendum under OAR 340-245-0100 with Source Risk Limits or an application that modifies the existing permit in a manner that ensures that the risk from the source will be less than or equal to the TBACT Level.

(B) Toxic air contaminant monitoring.

(i) Before the owner or operator of a source may begin air monitoring, the owner or operator must complete and submit to DEQ a Level 3 or Level 4 Risk Assessment and comply with the applicable requirements of OAR 340-245-0230.

(ii) An owner or operator may not delay submission of an application for an Air Contaminant Permit Addendum and subsequent implementation of the approved Risk Reduction Plan prepared under OAR 340-245-0130 if a Level 3 or 4 Risk Assessment shows that:

(I) Calculated excess cancer risk exceeds 200 in 1 million;

(II) Calculated noncancer risk exceeds a Hazard Index of 12 if all toxic air contaminants emitted have been assigned a noncancer TBACT Risk Action Level of a Hazard Index of 3;

(III) Calculated noncancer risk exceeds a Hazard Index of 20 if all toxic air contaminants emitted have been assigned a noncancer TBACT Risk Action Level of a Hazard Index of 5; or

(IV) Calculated noncancer Risk Determination Ratio exceeds 4 if air toxic contaminants emitted include a mixture of toxic air contaminants assigned noncancer TBACT Risk Action Levels of both a Hazard Index of 3 and a Hazard Index of 5.

(iii) If the Level 3 or Level 4 Risk Assessment calculates risk from the source that does not cause any exceedances of the criteria in subparagraph (ii), then DEQ shall issue a Toxics Air Contaminant Permit Addendum addressing toxic air contaminant monitoring requirements, including a reporting and compliance schedule for implementing the Toxic Air Contaminant Monitoring Plan required under OAR 340-245-0230;

(iv) Upon completion and DEQ approval of toxic air contaminant monitoring in compliance with OAR 340-245-0230, the owner or operator must use the toxic air contaminant monitoring results, in association with other applicable, relevant data to determine compliance requirements under paragraph (c)(A), (C), or (D) and apply for a Toxic Air

Contaminant Permit Addendum modification under OAR 340-245-0100;
(C) TBACT compliance. If the risk from the source is greater than the TBACT Level and less than or equal to the Risk Reduction Level, and all significant TEUs meet TBACT under OAR 340-245-0220, then the owner or operator must apply for a Toxic Air Contaminant Permit Addendum under OAR 340- 245-0100 that includes Source Risk Limits that ensure the risk from the source will be less than or equal to the Risk Reduction Level; or
(D) Risk Reduction Plan. The owner or operator may demonstrate compliance with this paragraph under either subparagraph (i), (ii), or (iii), whichever is applicable:
(i) If the risk from the source is greater than the TBACT Level and the owner or operator can make physical, operational or process changes to reduce the risk to less than or equal to the TBACT Level, then the owner or operator must apply for a Toxic Air Contaminant Permit Addendum under OAR 340-245-0100 that includes a Risk Reduction Plan under OAR 340-245-0130 and Source Risk Limits that ensure that the risk from the source will be less than or equal to the TBACT Level;
(ii) If the risk from the source is greater than the TBACT Level and less than or equal to the Risk Reduction Level, but not all significant TEUs meet TBACT under OAR 340-245-0220, then the owner or operator must either reduce risk below the TBACT Level under subparagraph (i) or apply for a Toxic Air Contaminant Permit Addendum under OAR 340-245-0100 that includes a Risk Reduction Plan under OAR 340-245-0130 to meet TBACT on all significant TEUs and Source Risk Limits that ensure that the risk from the source will be less than or equal to the Risk Reduction Level; or
(iii) If the risk from the source is greater than the Risk Reduction Level, the owner or operator must meet the requirements in subparagraph (ii) and apply for a Toxic Air Contaminant Permit Addendum under OAR 340-245-0100 that includes a Risk Reduction Plan under OAR 340-245-0130 with additional risk reduction measures and Source Risk Limits that ensure that the risk from the source will be less than or equal to the Risk Reduction Level.
(E) If the risk from the source is greater than the Immediate Curtailment Level, the owner or operator must take immediate action to reduce risk to below the Immediate Curtailment Level under OAR 340-245-0130(7).
(2) New or reconstructed source.
(a)(A) The owner or operator of a proposed new or reconstructed source that is required to obtain a Simple or Standard Air Contaminant Discharge Permit, and that is not an exempt source as determined by the procedure in section (6), must also perform a risk assessment, and if applicable, apply for a Toxic Air Contaminant Permit Addendum concurrently with an application for a permit under OAR chapter 340, division 216, before a permit is issued. If DEQ approves the applications, then DEQ will incorporate the toxic air contaminant permit conditions directly into the new Simple or Standard Air Contaminant Discharge Permit and will not issue a separate Toxic Air Contaminant Permit Addendum.
(B) DEQ may require the owner or operator of a proposed new or reconstructed source that is required to obtain a Basic or a General Air Contaminant Discharge Permit to perform a risk assessment and demonstrate compliance with this division, and if applicable, apply for a Toxic Air Contaminant Permit Addendum concurrently with an application for a permit under OAR chapter 340, division 216.
(i) If DEQ approves the applications for a source that will have a Basic Air Contaminant Discharge Permit, then DEQ will incorporate the toxic air contaminant permit conditions directly into the new operating permit.
(ii) If DEQ approves the applications for a source that will be assigned to a General Air Contaminant Discharge Permit, then DEQ will issue a Toxic Air Contaminant Permit Addendum as a source-specific addendum to the new operating permit that will not be incorporated into the operating permit.
(C) Any owner or operator of a proposed new or reconstructed source that is required to perform a risk assessment must:
(i) Assess risk from the source using any of the Level 1 through Level 4 Risk Assessment procedures in sections (8) through (11);
(ii) Assess risk from the source using the emissions inventory submitted under OAR 340-245-0040(1); and
(iii) Follow the applicable calculation procedures under OAR 340-245-0200.
(b) The owner or operator of a new or reconstructed source must demonstrate compliance with either paragraph (A) or

(B).
(A) The owner or operator must demonstrate that the source is a de minimis source by following the procedure in section (7), or demonstrate that the risk from the source is less than or equal to the TLAER Level. The owner or operator of a source whose risk is less than or equal to the TLAER Level must apply for a Toxic Air Contaminant Permit Addendum under OAR 340-245-0100 or an operating permit with Source Risk Limits that ensure that the risk from the source will be less than or equal to the TLAER Level; or
(B) TLAER compliance. If the risk from the new or reconstructed source is greater than the TLAER Level and less than or equal to the Permit Denial Level, and all significant TEUs meet TLAER under OAR 340-245-0220, then the owner or operator must apply for a Toxic Air Contaminant Permit Addendum under OAR 340-245-0100 or an operating permit that includes Source Risk Limits that ensure the risk from the source will be less than or equal to the Permit Denial Level.
(3) Other sources. When notified in writing by DEQ, the owner or operator of a source that is not subject to sections (1) or (2) must perform a risk assessment using any of the Level 1 through Level 4 Risk Assessment procedures in sections (8) through (11). DEQ may notify such a source after determining through an investigation or file review that the source may emit toxic air contaminants in quantities that may cause the source's risk to exceed the Source Permit Level.
(4) A risk assessment for a source must include all TEUs at the source, as of the date that the owner or operator submits an application under OAR 340-245-0100 for a Toxic Air Contaminant Permit Addendum, except for the following:
(a) Exempt TEUs; and
(b) Gas combustion TEUs, as provided under section (5).
(5) Gas combustion exemption. This exemption applies to TEUs that solely combust natural gas, propane, liquefied petroleum gas, and, when approved by DEQ in response to a written request by an owner or operator, pretreated landfill gas and pretreated digester gas or biogas. Risk from toxic air contaminants emitted from such combustion must be calculated and reported in the risk assessment, but the risk from such toxic air contaminants may be treated as follows:
(a) At each exposure location, risk must be reported as two values:
(A) The risk from toxic air contaminants emitted from such combustion of natural gas, propane, liquefied petroleum gas, pretreated landfill gas and pretreated digester gas or biogas; and
(B) The risk from all other toxic air contaminant emissions;
(b) At each exposure location, the risk from toxic air contaminants emitted solely from the combustion of natural gas, propane, liquefied petroleum gas, pretreated landfill gas and pretreated digester gas or biogas may be excluded from the total risk for the purpose of determining compliance with Risk Action Levels and may be omitted from any requirements determined under a Risk Reduction Plan under OAR 340-245- 0130 if good air pollution control practices are followed to ensure proper combustion; and
(c) Notwithstanding subsections (a) and (b), an owner or operator must include in its risk assessment any toxic air contaminants that are emitted from materials that are contacted by the flame or combustion gases from the combustion of natural gas, propane, liquefied petroleum gas, pretreated landfill gas or pretreated digester gas or biogas. Materials that may emit toxic air contaminants include but are not limited to VOCs combusted in thermal oxidizers and materials dried in direct-contact dryers.
(6) Exempt Source Determination.
(a) To be approved as an exempt source, no later than 30 days after the date that DEQ sends a notice under subsection (1)(a), or with submittal of an application for a new or reconstructed source under subsection (2)(a), the owner or operator must submit information to DEQ that demonstrates that all TEUs at the source are exempt TEUs as provided in OAR 340-245-0060(3); and
(b) Upon receipt of a submittal from an owner or operator under subsection (a), DEQ will:
(A) Review the submissions and, if approved, write a memo to the DEQ file for the source summarizing the assessment that will be:
(i) Incorporated into the review report of a permitted source upon permit issuance or renewal; or

(ii) Maintained in the file and tracked in a DEQ database.
(B) Follow the Category I public notice procedure in OAR chapter 340, division 209, prior to approving or denying the request to be considered an exempt source; and
(C) Keep records of exempt sources in a database for the emissions inventory and future communication if RBCs change or other information about risk is received such that toxic air contaminant emissions must be reevaluated.
(7) De minimis Source Determination.
(a) To be approved as a de minimis source, the owner or operator must assess risk at the capacity of all significant and aggregated TEUs, using any of the Level 1 through Level 4 Risk Assessment procedures in sections (8) through (11). The owner or operator must submit to DEQ the following, as applicable:
(A) Information that demonstrates the source does not exceed the Source Permit Level when operating without control devices;
(B) Information that demonstrates the source does not exceed the Source Permit Level if the owner or operator is required to operate and maintain control devices to remain a de minimis source and the existing or proposed operating permit includes necessary conditions to operate and maintain the control devices; or
(C) An application for a Toxic Air Contaminant Permit Addendum that demonstrates that the source does not exceed the Source Permit Level if the owner or operator is required to operate and maintain control devices to remain a de minimis source, and the existing or proposed operating permit does not include necessary conditions to operate and maintain the control devices.
(b) Upon receipt of a submittal from an owner or operator under subsection (a), DEQ will:
(A) Review the submissions and, if approved, either:
(i) Write a memo to the DEQ file for the source summarizing the assessment that will be:
(I) Incorporated into the review report of a permitted source upon permit issuance or renewal; or
(II) Maintained in the file and tracked in a DEQ database for sources that meet the criteria in paragraph (a)(A) or (B); or
(ii) Issue a Toxic Air Contaminant Permit Addendum or operating permit, for sources that meet the criteria in paragraph (a)(C);
(B) Follow the Category I public notice procedure in OAR chapter 340, division 209, prior to approving or denying the request to be considered a de minimis source; and
(C) Keep records of de minimis sources in a database for the emissions inventory and future communication if RBCs change or other information about risk is received such that toxic air contaminant emissions must be reevaluated.
(8) Level 1 Risk Assessment. To complete a Level 1 Risk Assessment, the owner or operator must comply with OAR 340-245-0210(1) and then assess risk by using the Level 1 Risk Assessment Dispersion Factor Tables in OAR 340-245-8010 Tables 3A through 3D to determine toxic air contaminant concentrations at approved exposure locations.
(a) The owner or operator must follow the directions for using the Level 1 Risk Assessment Dispersion Factor Tables described in OAR 340-245-0200(2);
(b) For sources with multiple stacks, stacks must either be considered individually using OAR 340-245- 8010 Tables 3A and 3B with risk calculated as the summation of individual stack risk, or the stacks combined into a single stack in a manner approved by DEQ and risk calculated for that single stack;
(c) A Level 1 Risk Assessment may not be approved if DEQ determines that the actual source modeling parameters, such as terrain features, exposure location distances less than 50m, unusual stack or building configurations, or other factors may invalidate the assumptions used to develop the Level 1 Risk Assessment Dispersion Factor Tables in OAR 340-245-8010 Table 3; and
(d) If DEQ concludes that the source complies with this division based on a Level 1 Risk Assessment, then DEQ will follow the Category II public notice procedure in OAR chapter 340, division 209 for issuance of the Toxic Air Contaminant Permit Addendum.
(9) Level 2 Risk Assessment. To complete a Level 2 Risk Assessment, the owner or operator must comply with OAR 340-245-0210(1) and then assess risk by submitting a modeling protocol, conducting modeling, and performing a risk assessment. The owner or operator must use AERSCREEN or comparable screening model approved by DEQ to

determine air concentrations at approved exposure locations. If DEQ concludes that the source complies with this division based on a Level 2 Risk Assessment, then DEQ will follow the Category II public notice procedure in OAR chapter 340, division 209 for issuance of the Toxic Air Contaminant Permit Addendum.

(10) Level 3 Risk Assessment. To complete a Level 3 Risk Assessment, the owner or operator must comply with OAR 340-245-0210 and then assess risk by submitting a modeling protocol and a risk assessment work plan, conducting modeling, and performing a risk assessment. The owner or operator must use AERMOD or comparable model approved by DEQ to determine air concentrations at approved exposure locations. If DEQ concludes that the source complies with this division based on a Level 3 Risk Assessment, then DEQ will follow the Category III public notice procedure in OAR chapter 340, division 209 for issuance of the Toxic Air Contaminant Permit Addendum.

(11) Level 4 Risk Assessment. To complete a Level 4 Risk Assessment, the owner or operator must comply with OAR 340-245-0210 and then assess risk by submitting a modeling protocol and a risk assessment work plan, conducting modeling, and performing a risk assessment. The owner or operator must use AERMOD or comparable model approved by DEQ to determine air concentrations at approved exposure locations. The risk assessment must include toxicity and bioaccumulation assessments, and may include proposed modifications to default exposure assumptions as specified in OAR 340-245-0210. If DEQ concludes that the source complies with this division based on a Level 4 Risk Assessment, then DEQ will follow the Category III public notice procedure in OAR chapter 340, division 209 for issuance of the Toxic Air Contaminant Permit Addendum.

(12) DEQ may require the owner or operator of a source to conduct and submit an additional multipathway risk evaluation for any level of risk assessment if DEQ determines that airborne deposition of chemicals could be important for scenarios not included in the default multipathway adjustment factor assumptions used in the original risk assessment for the source.

STATUTORY/OTHER AUTHORITY: ORS 468.020, ORS 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, Or Laws 2018, ch. 102, § 7, 468A.135, 468A.337

STATUTES/OTHER IMPLEMENTED: ORS 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, Or Laws 2018, ch. 102, § 7, 468A.337, 468A.335

AMEND: 340-245-0060

RULE TITLE: Toxics Emissions Units

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating table references. Listing what activities qualify as TEUs. Updating statutory authority.

RULE TEXT:

(1) TEU Designation. An owner or operator must designate TEUs in the same manner as the owner or operator designated emissions units listed in a source's operating or construction permit, if they are designated, unless the owner or operator requests a different designation in writing and DEQ approves that request in writing. The request for a new or a different TEU designation must be compatible with the following:

(a) TEUs may not be designated in such a way as to avoid the requirements of this division;

(b) An individual emissions-producing activity that exhausts through multiple stacks or openings must be designated as an individual TEU;

(c) Where multiple emissions-producing activities exhaust through a common opening, exhaust stack or emissions control device, all of these emissions producing activities may be considered a single TEU or may be considered separate TEUs;

(d) The list of TEUs should not be limited to what is listed in a source's operating or construction permit but should include all processes and activities that emit toxic air contaminants; and

(e) DEQ may require the owner or operator to designate TEUs differently than as listed in the source's operating or construction permit, if DEQ determines such listing is appropriate to meet the purposes of this division.

(2) Aggregated TEUs.

(a) An owner or operator must designate the same TEUs as aggregated TEUs for all of the different types of risk: excess cancer risk, chronic noncancer risk and acute noncancer risk.

(b) An owner or operator may choose to assign risk from aggregated TEUs based on either:

(A) The applicable Aggregate TEU Level in OAR 340-245-8010 Table 1; or

(B) The modeled risk from the approved risk assessment.

(c) An owner or operator must request approval to change any aggregated TEU designation after the source's aggregated TEUs have been designated in a risk assessment approved by DEQ.

(d) An owner or operator may request approval to construct a new aggregated TEU or modify an existing aggregated TEU, following the procedures in section (4) if the total risk from the aggregated TEUs, including the new or modified TEU, remains less than or equal to the applicable Aggregate TEU Level in OAR 340-245-8010 Table 1.

(3) Exempt TEUs. A TEU is an exempt TEU if it meets the criteria in subsection (a) or (b):

(a) The owner or operator of the TEU has demonstrated that the TEU is not likely to emit toxic air contaminants and DEQ approves such demonstration. The demonstration may include any information the owner or operator considers relevant, including but not limited to:

(A) The chemical make-up of the materials handled or processed in the TEU as provided by Environmental, Safety, or Product Data Sheets, or equivalent documents; and

(B) Whether or not the handling or processing of materials in the TEU is likely to alter the chemical make-up of the materials and the chemical make-up or likely chemical make-up of the materials emitted by the TEU.

(b) The TEU is one of the following regulated pollutant emitting activities, principally supporting the source or the major industrial group:

(A) Evaporative and tailpipe emissions from on-site motor vehicle operation;

(B) Distillate oil, kerosene, gasoline, natural gas or propane burning equipment, provided the aggregate expected actual emissions of the equipment identified does not exceed the de minimis level for any regulated pollutant, based on the expected maximum annual operation of the equipment. If a source's expected emissions from all such equipment exceed the de minimis levels, then the source may identify a subgroup of such equipment as an exempt TEU with the remainder not designated as an exempt TEU. The following equipment may never be included as part of the exempt

TEU:
(i) Any individual distillate oil, kerosene or gasoline burning equipment with a rating greater than 0.4 million Btu/hour; and
(ii) Any individual natural gas or propane burning equipment with a rating greater than 2.0 million Btu/hour.
(C) 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;
(D) Office activities;
(E) Food service activities;
(F) Janitorial activities;
(G) Personal care activities;
(H) Groundskeeping activities including, but not limited to, building painting and road and parking lot maintenance;
(I) On-site laundry activities;
(J) On-site recreation facilities;
(K) Instrument calibration;
(L) Automotive storage garages;
(M) Refrigeration systems with less than 50 pounds of charge of ozone depleting substances regulated under Title VI, including pressure tanks used in refrigeration systems but excluding any combustion equipment associated with such systems;
(N) Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including associated vacuum producing devices but excluding research and development facilities;
(O) Temporary construction activities;
(P) Warehouse activities;
(Q) Accidental fires and fire suppression;
(R) Air vents from air compressors;
(S) Air purification systems;
(T) Continuous emissions monitoring vent lines;
(U) Demineralized water tanks;
(V) Pre-treatment of municipal water, including use of deionized water purification systems;
(W) Electrical charging stations;
(X) Fire brigade training;
(Y) Instrument air dryers and distribution;
(Z) Fully enclosed process raw water filtration systems;
(AA) Electric motors;
(BB) Pressurized tanks containing gaseous compounds that do not contain toxic air contaminants;
(CC) Vacuum sheet stacker vents;
(DD) Emissions from wastewater discharges to publicly owned treatment works (POTW) provided the source is authorized to discharge to the POTW, not including on-site wastewater treatment and/or holding facilities;
(EE) Log ponds;
(FF) Stormwater settling basins;
(GG) Paved roads and paved parking lots within an urban growth boundary;
(HH) Hazardous air pollutant emissions in fugitive dust from paved and unpaved roads except for those sources that have processes or activities that contribute to the deposition and entrainment of hazardous air pollutants from surface soils;
(II) Health, safety, and emergency response activities;
(JJ) Non-diesel, compression ignition 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, provided that the aggregate horsepower rating of all stationary emergency generator and pump engines is not more than 3,000 horsepower. If the aggregate horsepower rating of all stationary emergency generator and pump engines is more than 3,000 horsepower, then no emergency generators and pumps at the source may be considered categorically insignificant;
(KK) Non-contact steam vents and leaks and safety and relief valves for boiler steam distribution systems;
(LL) Non-contact steam condensate flash tanks;
(MM) Non-contact steam vents on condensate receivers, deaerators and similar equipment;
(NN) Boiler blowdown tanks; and
(OO) Ash piles maintained in a wetted condition and associated handling systems and activities.
(4) New or modified TEU requirements.
(a) The owner or operator of a source that has not been notified in writing by DEQ that they are required to submit a risk assessment and that proposes to construct a new or modified TEU must comply with OAR 340-210-0205 through 340-210-0250 before beginning construction of the new or modified TEU;
(b) The owner or operator of a source that has been notified in writing by DEQ that they are required to submit a risk assessment but has not yet been issued a Toxic Air Contaminant Permit Addendum or an operating permit in compliance with this division and that proposes to construct a new or modified TEU must do the following before beginning construction of the new or modified TEU:
(A) Comply with OAR 340-210-0205 through 340-210-0250; and
(B) Revise and update any materials submitted to date under OAR 340-245-0050 to include the new or modified TEU by a date certain.
(c) The owner or operator of a source that previously has been issued a Toxic Air Contaminant Permit Addendum or an operating permit in compliance with this division and that proposes to construct a new or modified TEU must follow the applicable procedures in paragraphs (c)(A) through (C) and must pay to DEQ all applicable specific activity fees under OAR 340-216-8020 Table 2 Part 4 and OAR 340-216-8030 Table 3.
(A) New or modified exempt TEUs. If the proposed new or modified exempt TEU is subject to National Emission Standards for Hazardous Air Pollutants or New Source Performance Standards requirements, then the owner or operator must request approval of a new or modified exempt TEU under this rule and under OAR 340-210-0205 through 340-210-0250;
(B) New or modified aggregated TEUs.
(i) The owner or operator must request approval of a new or modified TEU to be an aggregated TEU by demonstrating that the risk from the aggregated TEUs, including the new or modified TEU, will be less than or equal to the Aggregate TEU Level. The owner or operator may use any risk assessment procedure, Level 1 through Level 4, under OAR 340-245-0050(8) through (11).
(ii) If the current aggregated TEUs are permitted at the modeled risk levels as specified in OAR 340-245-0060(2)(b)(B), the owner or operator may add the risk from the new or modified aggregated TEU to prior results from the latest risk assessment for the source rather than updating the entire risk assessment for the source.
(iii) The owner or operator must request approval of a new or modified aggregated TEU by submitting an application to modify its Toxic Air Contaminant Permit Addendum or operating permit as required under OAR 340-245-0100(8).
(iv) The owner or operator of a proposed new or modified aggregate TEU may not begin construction until DEQ has issued a Toxic Air Contaminant Permit Addendum or an operating permit that approves the TEU;
(C) New or modified significant TEUs.
(i) The owner or operator must request approval of a new or modified significant TEU by submitting an application to modify its Toxic Air Contaminant Permit Addendum or operating permit that includes the following:
(I) Information necessary to assess the risk from the new or modified significant TEU using any risk assessment procedure, Level 1 through Level 4, under OAR 340-245-0050(8) through (11). The owner or operator may add the risk from the new or modified TEU to prior results from the latest risk assessment for the source rather than updating the

entire risk assessment for the source; and
(II) Information necessary to verify that the new or modified significant TEU meets TLAER, if the source risk is greater than the TLAER Level for a new or reconstructed source, or meets TBACT, if the source risk is greater than the TBACT Level for an existing source using procedures under OAR 340-245-0220;
(ii) The owner or operator of a proposed new or modified significant TEU may not begin construction of the new or modified significant TEU until DEQ has issued a Toxic Air Contaminant Permit Addendum or an operating permit that approves the TEU;
(iii) If a source that was previously determined to be an exempt source under OAR 340-245-0050(6) or a de minimis source under OAR 340-245-0050(7) will no longer be an exempt or a de minimis source after the new or modified significant TEU is constructed, the owner or operator must follow the procedures in this section and apply for a Toxic Air Contaminant Permit Addendum under OAR 340-245-0100. Such an owner or operator may not begin construction of the new or modified significant TEU until DEQ has issued a Toxic Air Contaminant Permit Addendum or an operating permit that approves the TEU; and
(iv) In conjunction with seeking authorization for the construction of a new or modified significant TEU, if the owner or operator makes simultaneous changes to existing TEUs other than the new or modified significant TEU for the purpose of reducing source risk, then the owner or operator may not begin operation of the new or modified significant TEU until DEQ has issued a Toxic Air Contaminant Permit Addendum or operating permit that approves all such changes to the other TEUs;
(d) DEQ will not approve an application for a Toxic Air Contaminant Permit Addendum required under this rule for a new or modified TEU if:
(A) The TEU does not comply with this rule; or
(B) The source does not comply with OAR 340-245-0050, if required.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.335

AMEND: 340-245-0100

RULE TITLE: Toxic Air Contaminant Permit Addenda

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Clarifying what's required for a Toxic Air Contaminant Permit Addenda. Updating statutory authority.

RULE TEXT:

(1) Purpose and Intent.

(a) A Toxic Air Contaminant Permit Addendum or conditions included in an operating permit to comply with this division are used to:

(A) Authorize the owner or operator of a source to construct or modify TEUs that discharge toxic air contaminants;

(B) Authorize the owner or operator of a source to discharge toxic air contaminants subject to enforceable permit requirements, limitations, and conditions, including to:

(i) Establish enforceable risk limits for the purpose of limiting the risk from toxic air contaminants from a source;

(ii) Approve, modify and implement a Risk Reduction Plan and require the owner or operator of a source to implement the ongoing requirements; and

(iii) Approve, modify and implement a Voluntary Risk Reduction Plan and require the owner or operator of a source to implement the ongoing requirements;

(C) Approve, modify and implement a Toxic Air Contaminant Monitoring Plan; and

(D) Approve postponement of risk reduction;

(b) A Toxic Air Contaminant Permit Addendum:

(A) For the owner or operator of a source with a General Air Contaminant Discharge Permit, is issued as a source-specific addendum to the operating permit and will not be incorporated into the operating permit;

(B) For the owner or operator of a source with an operating permit other than a General Air Contaminant Discharge Permit:

(i) Is issued to the owner or operator as an addendum to the operating permit and will be incorporated into the operating permit at the time of a permit modification or renewal that subjects all permit conditions to the Category II or Category III public notice procedure in OAR chapter 340, division 209; or

(ii) Will not be issued when the toxic air contaminant permit conditions are incorporated directly into an operating permit after such changes were subject to a public notice period under OAR chapter 340, division 209.

(C) May not be issued to an owner or operator before the source has obtained an operating permit; and

(D) May not be issued in lieu of an otherwise required operating or construction permit.

(2) A Toxic Air Contaminant Permit Addendum amends a source's operating permit, but if the terms of such addendum and the operating permit contain any limit or restriction applicable to the same emissions or processes, then the owner or operator must comply with the more stringent limit or restriction.

(3) Application Requirements. An owner or operator requesting a new or modified Toxic Air Contaminant Permit Addendum must submit an application that includes all of the information specified in subsections (3)(a) through (n) as well as the relevant information required under OAR 340-245-0050. The owner or operator must submit all required information by the submittal deadlines in OAR 340-245-0030, certified by a responsible official that the information submitted is true, accurate, and complete. The owner or operator must submit to DEQ one paper copy and one electronic copy of the application.

(a) Identifying information, including the name of the person that owns or operates the source, the owner's or operator's mailing address, the source address, and a description of the nature of business being operated, the name, phone number and email address of the primary contact at the source who is responsible for compliance with the permit, the permit number for an existing source, and the SIC or NAICS code of the source;

(b) The name of a person authorized to receive requests from DEQ for additional data and information;

(c) For owners or operators of sources with Basic or General Air Contaminant Discharge Permits, an emissions

inventory required under OAR 340-245-0040(3)(a);
(d) For owners or operators of sources with Title V, Standard, or Simple Air Contaminant Discharge Permits, an emissions inventory required under OAR 340-245-0040(3)(a) and (b);
(e) Where the operation or maintenance of air pollution control devices and emission reduction processes can be adjusted or varied from the highest reasonable efficiency and effectiveness, information necessary for DEQ to establish operational and maintenance requirements under OAR 340-226-0120(1) and (2);
(f) The final DEQ-approved modeling protocol required under OAR 340-245-0210;
(g) The final DEQ-approved Level 3 or Level 4 Risk Assessment work plan required under OAR 340- 245-0210, if applicable;
(h) The final DEQ-approved risk assessment required under OAR 340-245-0050;
(i) Information sufficient to demonstrate that a TEU meets TBACT or TLAER under OAR 340-245- 0220, if applicable;
(j) For sources whose risk is greater than or equal to the TBACT Level before any additional risk reduction measures are considered, a pollution prevention analysis that meets the requirements of OAR 340-245-0140;
(k) The final DEQ-approved Risk Reduction Plan under OAR 340-245-0130, if applicable;
(l) The final DEQ-approved postponement of risk reduction under OAR 340-245-0150, if applicable;
(m) The final DEQ-approved Toxic Air Contaminant Monitoring Plan under OAR 340-245-0230, if applicable; and
(n) Any other information requested by DEQ.
(4) Application review and processing.
(a) DEQ shall use the procedures in OAR 340-245-0030 to review an application submitted under this rule to determine its completeness, consider extension requests, and request additional information, if needed;
(b) If DEQ determines that a Toxic Air Contaminant Permit Addendum is not required during review of an application, or at any time during application processing, DEQ will notify the applicant in writing;
(c) When DEQ has approved an application for a Toxic Air Contaminant Permit Addendum or operating permit, DEQ will prepare a review report and either draft Toxic Air Contaminant Permit Addendum or a draft operating permit with conditions that comply with this division;
(d) Prior to initiating any public notice procedure required under OAR 340-245-0050, DEQ will provide a copy of the draft Toxic Air Contaminant Permit Addendum or operating permit to the owner or operator and will provide the owner or operator 14 days to review and provide feedback to DEQ. DEQ may grant an extension for review of the draft permit addendum or operating permit for good cause shown by the owner or operator. Following consideration of comments from the owner or operator, DEQ may revise the draft Toxic Air Contaminant Permit Addendum or operating permit before placing it on public notice; and
(e) Public notice requirements for issuance of a Toxic Air Contaminant Permit Addendum or operating permit with conditions required under this division.
(A) The minimum public notice procedures for issuance are described in the applicable sections of OAR 340-245-0050. DEQ may enhance the public notice procedures at its discretion;
(B) When required to provide public notice, DEQ will make available to the public the draft Toxic Air Contaminant Permit Addendum or operating permit and a review report that sets forth the legal and factual basis for the permit conditions, including references to the applicable regulatory provisions, the source's most recent risk assessment results, and the level of risk assessment that the source used to perform the risk assessment; and
(C) Prior to determining whether to issue, revise, or deny a Toxic Air Contaminant Permit Addendum or an operating permit with conditions required under this division, DEQ must consider public comments it receives under the applicable public notice procedures that are relevant to the draft permit addendum or operating permit and within the scope of DEQ's authority.
(5) DEQ may not issue a Toxic Air Contaminant Permit Addendum or an operating permit for a source if:
(a) The owner or operator of a proposed new or reconstructed source does not comply with OAR 340- 245-0050, 340-245-0060 and this rule, as applicable;
(b) DEQ determines that the emissions from a proposed new or reconstructed source would result in risk at any

exposure location that will exceed a Permit Denial Level; or
(c) DEQ determines that the emissions from an existing source would result in risk at any exposure location that will exceed the Immediate Curtailment Risk Action Level.
(6) Content of a Toxic Air Contaminant Permit Addendum or Operating Permit Conditions. A Toxic Air Contaminant Permit Addendum or an operating permit with conditions required under this division must:
(a) Identify the name of the person that owns or operates the source, the owner's or operator's mailing address, the source address, and a description of the nature of business being operated, the name, phone number and email address of the primary contact at the source who is responsible for compliance with the permit, the permit number for an existing source, and the SIC or NAICS code of the source;
(b) Include a list of all TEUs that are subject to a Toxic Air Contaminant Permit Addendum or operating permit conditions required under this division, including all exempt TEUs and aggregated TEUs;
(c) Include permit conditions that contain Source Risk Limits to implement the requirements specified in OAR 340-245-0110;
(d) Establish or revise any operating limits or conditions necessary under this division, including annual or short-term toxic air contaminant emission limits, conditions to limit risk from TEUs or the entire source, and operational limits for toxic air contaminants, including limits or levels that are equipment specific, process specific, TEU-specific, or that apply to the entire source;
(e) Include testing, monitoring, recordkeeping, and reporting requirements sufficient to determine compliance with all limits or requirements in the Toxic Air Contaminant Permit Addendum or the operating permit conditions required under this division, as necessary;
(f) At the discretion and option of the owner or operator, include a description of the owner's or operator's plans to continue its community engagement activities after DEQ has completed its notification requirements;
(g) Include a compliance schedule, as necessary, to ensure compliance or progress toward compliance with the requirements in this division;
(h) Include other limits and requirements, as necessary, to ensure compliance with this division; and
(i) Include a condition that requires the owner or operator to provide an annual report to DEQ.
(7) Reporting Requirements. The owner or operator must submit a report at least annually to DEQ to demonstrate compliance with all conditions required under this division that are included in a Toxic Air Contaminant Addendum or an operating permit. The report must include:
(a) Twice-annual progress reports required under a Risk Reduction Plan under OAR 340-245-0130;
(b) Periodic TBACT or TLAER update reports required under OAR 340-245-0220(5);
(c) Verification there has not been a change in zoning within 1.5 kilometers of the source and, if so, whether that change increases the source risk;
(d) Documentation showing that, for any area that the source demonstrated in its risk assessment was not used in a manner allowed by the land use zoning applicable to the area as allowed under OAR 340-245-0210, the area continues to not be used in the manner allowed by the land use zoning applicable to the area; and
(e) Any other information required to be reported by a condition in the Toxic Air Contaminant Permit Addendum or an operating permit.
(8) Procedures to Modify Toxic Air Contaminant Permit Conditions. If the Toxic Air Contaminant Permit Addendum has not been incorporated into the operating permit, the following procedures must be followed for modifications to existing Toxic Air Contaminant Permit Addenda. Otherwise, the owner or operator must apply for an operating permit modification under OAR 340 division 216 or 218 using the procedures in this division for the following modifications:
(a) Modifications initiated by the owner or operator. An owner or operator must submit an application for modification before making any change described in paragraphs (a)(A) through (J) and that would result in a violation of a condition of the Toxic Air Contaminant Permit Addendum or an operating permit condition required under this division;
(A) Construct or modify a TEU that is:
(i) Exempt under OAR 340-245-0060(4)(c)(A);

(ii) Aggregate under OAR 340-245-0060(4)(c)(B); or
(iii) Significant under OAR 340-245-0060(4)(c)(C);
(B) Modify an established Source Risk Limit or any risk limits or conditions necessary under this division;
(C) Request an extension to a compliance date. The owner or operator must submit the application for extension at least 90 days before the compliance date specified in the current Toxic Air Contaminant Permit Addendum or operating permit. Criteria for granting any extension include the following:
(i) The owner or operator has a clear plan towards meeting the Source Risk Limit;
(ii) The owner or operator has made demonstrated progress towards meeting the requirements that are the subject of the extension request; and
(iii) The owner or operator has submitted documentation proving that the delay is due to reasonably unforeseeable events beyond their control;
(D) Modify any physical feature of the source that was used as a modeling parameter in the risk assessment and that affects the results of the risk assessment, such as but not limited to fence lines, building heights, stack heights, or relocation of a TEU or stack by more than 10 meters;
(E) Terminate postponement of risk reductions;
(F) Modified zoning or land use. The owner or operator must submit an application for modification under this division and revise the risk assessment submitted under OAR 340-245-0050 no later than 60 days after the following:
(i) The zoning in the area within a distance of 1.5 kilometers of a source has changed in a way that could increase risk;
(ii) Land use has changed in a way that could increase risk in areas where alternative land use was previously approved for use in the risk assessment under OAR 340-245-0210(1)(a)(F);
(G) Modify air monitoring requirements; and
(H) Revise or update the approved risk assessment. An owner or operator must promptly submit a corrected risk assessment upon becoming aware of the need for corrections or additional information. This requirement is in addition to, and not in lieu of, a DEQ decision to commence an enforcement action against such owner or operator for such violation, as DEQ determines appropriate under the circumstances;
(b) Modifications required by DEQ. When notified in writing by DEQ, the owner or operator must update or correct its previous risk assessment and submit an application for a modification if:
(A) DEQ determines through an investigation or file review that a previous risk assessment contains errors or omissions that, when corrected, could increase the risk;
(B) An RBC in OAR 340-245-8010 Table 2 has been added or lowered that would substantially impact risk, implementation, or effectiveness of the Risk Reduction Plan;
(C) Risk assessment procedures change that would substantially impact risk, implementation, or effectiveness of the Risk Reduction Plan; and
(D) Results of toxic air contaminant monitoring done by the owner or operator show higher risk than any risk determined by the risk assessment;
(c) The owner or operator must submit a complete application for modification, and pay the applicable modification fees in subsection (g). If DEQ has provided notice to the owner or operator under subsection(b), then the owner or operator must submit the necessary information required under section (3) to DEQ 90 days after the date that DEQ sends such written notice;
(d) DEQ shall use the procedures in OAR 340-245-0030 to review a modification application submitted under this rule to determine its completeness, consider extension requests, and request additional information, if needed;
(e) When updating or correcting a risk assessment, the owner or operator must consult with DEQ and must follow the applicable risk assessment requirements in OAR 340-245-0050;
(f) When DEQ receives an application to modify a Toxic Air Contaminant Permit Addendum or operating permit, DEQ will use the following public notice procedures:
(A) Category III public notice procedures in OAR chapter 340, division 209 if the change will:
(i) Increase source risk when an existing or new facility's source risk is above the TBACT or TLAER Risk Action Level

prior to the modification, except when the source risk increase is from the addition of an aggregated TEU;
(ii) Increase source risk above a Risk Action Level that requires additional requirements under this division;
(iii) Establish a Risk Reduction Plan for termination of postponement of risk reduction;
(iv) Extend any compliance dates in a compliance schedule established in the permit; or
(v) Significantly change proposed control methods in a Risk Reduction Plan;
(B) Category I public notice procedures in OAR chapter 340, division 209 for non-technical modifications and basic technical modifications; or
(C) Category II public notice procedures in OAR chapter 340, division 209 for all other types of permit changes not described in paragraphs (A) and (B);
(g) The fee for a modification is:
(A) The Complex Technical Modification fee under OAR 340-216-8020 Table Part 4 for modifications under paragraph (f)(A);
(B) The Basic Technical Modification fee or the Non-Technical Permit Modification fee under OAR 340- 216-8020 Table 2 Part 4 for modifications under paragraph (f)(B); or
(C) The Moderate Technical Modification fee under OAR 340-216-8020 Table 2 Part 4 for modifications under paragraph (f)(C).

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337, 468A.345

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.345, 468A.335

AMEND: 340-245-0110

RULE TITLE: Source Risk Limits

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating statutory authority.

RULE TEXT:

(1) The purpose of a Source Risk Limit is to limit the chronic and acute risk from a source that emits toxic air contaminants. DEQ will establish Source Risk Limits based on the results of the risk assessment performed under OAR 340-245-0050. DEQ will establish Source Risk Limits separately for each of the following risk categories: chronic excess cancer risk, chronic noncancer risk and acute noncancer risk.

(a) Source Risk Limits that are based on chronic risk apply on a rolling 12 consecutive month basis and limit the source's chronic risk or annual PTE, as applicable;

(b) Source Risk Limits that are based on acute risk apply on a daily basis and limit the source's acute risk or daily PTE, as applicable; and

(c) DEQ may establish multiple chronic or acute noncancer Source Risk Limits for an individual source on a case-by-case basis to account for risk to different target organs or organ systems.

(2) Establishing Source Risk Limits. For new, reconstructed, and existing sources whose risk is greater than the Source Permit Level, DEQ may set Source Risk Limits based on either:

(a) The level modeled in the risk assessment required under OAR 340-245-0050 using the emissions inventory submitted under OAR 340-245-0040(1); or

(b) For existing sources, a level other than the modeled level that reflects a reasonable estimate of risk from the source taking into account projected operations and other factors, including but not limited to:

(A) Applicable State and Federal limitations;

(B) Established PTE;

(C) Past operations; and

(D) Recent trends in emission rates.

(3) An owner or operator may propose the type of risk limit that will be included in the source's Toxic Air Contaminant Permit Addendum or operating permit, such as a limit on emissions or source operation, or a limit on risk.

(a) Source Risk Limits will generally be based on conditions imposed on emissions, operational parameters, production activities, fuel or raw material usage, as necessary, to maintain risk below the Source Risk Limits; or

(b) Source Risk Limits may be expressed in terms of risk, such as X per million for excess cancer risk or Hazard Index of Y, where X and Y indicate a numerical value.

(4) If a compliance schedule to reduce risk is included in the Toxic Air Contaminant Permit Addendum or operating permit for an existing source, the owner or operator must comply with all the requirements in the compliance schedule and maintain proposed risk below the Immediate Curtailment Level, if applicable.

(5) Determining Compliance with Source Risk Limits.

(a) Frequency. The owner or operator must maintain compliance with the Source Risk Limit on the frequency specified in the Toxic Air Contaminant Permit Addendum or operating permit as follows:

(A) For excess cancer risk, using the annual actual toxic air contaminant emission rates emitted by the source that have cancer RBCs determined on a 12-rolling month basis, compliance must be maintained monthly, unless less frequent compliance requirements are specified in a source's Toxic Air Contaminant Permit Addendum or operating permit;

(B) For chronic noncancer risk, total or separated for each target organ or organ system, using the annual actual toxic air contaminant emission rates emitted by the source that contribute to each chronic noncancer risk determined on a 12-rolling month basis, compliance must be maintained monthly, unless less frequent compliance requirements are specified in a source's Toxic Air Contaminant Permit Addendum or operating permit; and

(C) For acute noncancer risk, total or separated for each target organ or organ system, using the maximum daily actual toxic air contaminant emission rates emitted by the source that contribute to each acute noncancer risk determined for

the preceding day, compliance must be maintained daily, unless less frequent compliance requirements are specified in a source's Toxic Air Contaminant Permit Addendum or operating permit;
(b) Compliance records maintenance method.
(A) If the Source Risk Limit is based on emissions, production activities, or other limits on source operation, the owner or operator must monitor emissions, production activities, or other limits on source operation, using one or more of the following methods:
(i) Continuous emissions monitors;
(ii) Material balance calculations;
(iii) Emissions calculations using approved emission factors and process information;
(iv) Production activity or process parameter monitoring; and
(v) Other methods approved by DEQ;
(B) If the Source Risk Limit is based on risk, the owner or operator must calculate ongoing risk in a manner specified in the source's Toxic Air Contaminant Permit Addendum or operating permit.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.335

AMEND: 340-245-0120

RULE TITLE: Community Engagement

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Adding detail to what DEQ will do for community engagement. Updating statutory authority.

RULE TEXT:

(1) The purpose of community engagement is to inform the community and provide a mechanism for input to DEQ's work with sources that are called into the program. The requirements of this rule are intended to ensure that consideration of environmental justice is appropriately emphasized throughout implementation of this division.

(2) Notification. When DEQ holds a public meeting under subsection (3)(a), DEQ will, at a minimum, notify persons with an address in the notification area. DEQ will provide a 30 day notice of any public meeting held under subsection (3)(a) by sending an email through GovDelivery or mailing written notice via U.S. mail to such persons. DEQ may enhance the public notice procedures at its discretion. DEQ may determine notice requirements for any additional public meetings held under subsection (3)(c).

(3) Public meetings.

(a) DEQ may hold one or more public meetings to gather community input prior to drafting proposed permit conditions for new, reconstructed, modified and existing sources if the owner or operator requests Source Risk Limits greater than any of the Community Engagement Levels except as allowed by OAR 340-245-0130(6). DEQ, in consultation with persons who live or spend time within the notification area, may determine that another forum for communication, as listed in section (4), in lieu of or in addition to a public meeting, is appropriate;

(b) If DEQ does not hold a public meeting as specified in subsection (a), DEQ will provide written notice via U.S. mail to all persons with an address in the notification area that the owner or operator has requested Source Risk Limits greater than any of the Community Engagement Levels except as allowed by OAR 340-245-0130(6);

(c) DEQ may, at its discretion, also hold one or more public meetings for any other reporting, monitoring or permitting action associated with activities under this division with advanced notice;

(d) In planning and holding public meetings, DEQ will consider:

(A) A location that is Americans with Disabilities Act compliant, is convenient for community members to attend and can be accessed by public transportation, if available;

(B) The timing of the meeting, scheduling in a manner that is convenient to the majority of attendees;

(C) Whether translation services are necessary, and may provide such services;

(D) Whether childcare is necessary, and when feasible, may work with providers to render such services; and

(E) Best practices for public and community meetings as identified in resources published by the State of Oregon Environmental Justice Task Force and OHA;

(e) When DEQ determines to hold a public meeting under subsection (3)(a) regarding a source, then the owner or operator must pay the applicable community engagement fee specified in OAR 340-216-8030 Table 3, and at least one representative of the owner or operator must appear at the public meeting.

(4) Other forums for communication. Other forums for communication may include any or all of the following:

(a) Notifying the community of information and reports submitted by an applicant required by this division by sending an email through GovDelivery or mailing written notice via U.S. mail;

(b) Posting all information and reports submitted by an applicant on the DEQ website;

(c) Attending community forums or other local meetings when relevant or requested by the community. The representative of the owner or operator is not required to attend this type of meeting;

(d) Electronic meeting forums such as webinars or conference calls; and

(e) Other activities as determined necessary by DEQ.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.337, 468A.343

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.337, 468A.010, 468A.015, 468A.035, 468A.343, 468A.335

AMEND: 340-245-0130

RULE TITLE: Risk Reduction Requirements

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating risk reduction plan requirements and statutory authority.

RULE TEXT:

(1) A Risk Reduction Plan for an existing source must do the following within the specified period of time under OAR 340-245-0030, as applicable:

(a) Reduce risk to less than or equal to the TBACT Level;

(b) Require the owner or operator to meet TBACT on all significant TEUs;

(c) Reduce risk to less than or equal to the Risk Reduction Level; or

(d) Reduce risk to less than or equal to the Community Engagement Level if the owner or operator voluntarily agrees to do so.

(2) Risk Reduction Plan Requirements. The owner or operator that is requesting approval of a Risk Reduction Plan must submit to DEQ the following:

(a) Two air contaminant emissions inventories:

(A) The emissions inventory for the source submitted under OAR 340-245-0040(1) before implementation of the proposed Risk Reduction Plan measures; and

(B) A projected emissions inventory for the source submitted under OAR 340-245-0040(1) and OAR 340-245-0040(3)(b)(B)(ii)(I) after implementation of the proposed Risk Reduction Plan measures;

(b) The results of a risk assessment performed under OAR 340-245-0050(10) or (11) including the risk calculations before and after full implementation of the Risk Reduction Plan using the emissions inventories required in subsection (a);

(c) An analysis of pollution prevention measures under OAR 340-245-0140, and a description of those measures that the owner or operator has undertaken and included as part of its Toxic Air Contaminant Permit Addendum application;

(d) Identification of each TEU for which an action will be taken to reduce risk, how the risk will be reduced, and for TEUs that are required to meet TBACT:

(A) A demonstration that all significant TEUs at the source meet TBACT under OAR 340-245-0220; or

(B) The TBACT analysis under OAR 340-245-0220 that demonstrates that all significant TEUs at the source will meet TBACT when the plan is fully implemented;

(e) A schedule for implementing the proposed Risk Reduction Plan measures within the time frames allowed under section (4), if not sooner. The schedule must specify:

(A) The dates by which the source will implement the proposed Risk Reduction Plan measures;

(B) The dates for submittal of periodic reports showing progress toward completion of the proposed Risk Reduction Plan measures. Progress reports should include achievement of significant milestones, including but not limited to dates of equipment delivery and construction progress; and

(C) The dates for submittal of applications for permits to construct or modify, which must be no later than 90 days after DEQ approval of the Risk Reduction Plan, or other time period approved by DEQ;

(f) The proposed Source Risk Limits.

(3) The owner or operator may request a postponement of risk reduction for excess cancer and chronic noncancer risk under OAR 340-245-0150.

(4) Risk Reduction Plan implementation deadlines.

(a) Chronic risk. The owner or operator of a source that has either or both an excess cancer or chronic noncancer source risk that is greater than the TBACT Level must complete implementation of the Risk Reduction Plan within two years from the effective date of the Toxic Air Contaminant Permit Addendum or the operating permit with conditions in compliance with this division, or at an earlier time as required by DEQ in such addendum or operating permit;

(A) Except as provided in paragraph (B), the owner or operator may apply for a permit modification as specified under

OAR 340-245-0100(8) to request additional time to complete implementation of risk reductions measures. If the owner or operator, in such application, shows good cause for the modification based on unreasonable hardship to the source, then DEQ may allow the owner or operator not more than two additional years beyond the timeline established in subsection (4)(a).
(B) DEQ may not grant a request under paragraph (A) to an owner or operator that has previously received approval for a postponement of risk reduction under OAR 340-245-0150;
(b) Acute risk. The owner or operator of a source that has acute risk that is greater than the TBACT Level must complete implementation of the Risk Reduction Plan on the following timeline:
(A) Within one month from the effective date of the Toxic Air Contaminant Permit Addendum or the operating permit with conditions in compliance with this division; or
(B) If the owner or operator requests additional time in its Toxic Air Contaminant Permit Addendum application and shows good cause based on unreasonable hardship to the source and an evaluation of health factors, including but not limited to severity of acute health effect, degree of scientific certainty, and averaging time of the acute TRV used to develop the RBC, then DEQ may allow the owner or operator up to and not more than 12 months to complete implementation of the Risk Reduction Plan.
(5) Reporting Requirements.
(a) The owner or operator of a source that has been issued a Toxic Air Contaminant Permit Addendum or operating permit that includes a Risk Reduction Plan must submit twice-annual progress reports to DEQ describing the source's progress in reducing toxic air contaminant emissions and risk by implementing the Risk Reduction Plan. The progress reports are due to DEQ on or before February 15 and July 31 of each year that the Risk Reduction Plan is in effect, or other dates specified in the Toxic Air Contaminant Permit Addendum or operating permit. The progress reports must include all information required by the Toxic Air Contaminant Permit Addendum or operating permit, including but not limited to:
(A) The increments of progress achieved in implementing the risk reduction measures specified in the Risk Reduction Plan;
(B) A schedule indicating dates for future increments of progress;
(C) A description of any increases or decreases in emissions of toxic air contaminants that have occurred at the source since approval of the Risk Reduction Plan; and
(D) An estimate of when all Risk Reduction Plan elements will be completed;
(b) The owner or operator must submit a Risk Reduction Plan completion report to DEQ no later than 60 days after completing all Risk Reduction Plan requirements. The report must include:
(A) The final increments of progress achieved in fully implementing the risk reduction measures specified in the Risk Reduction Plan and the date the final increments of progress were achieved;
(B) A summary of the actions taken to implement the Risk Reduction Plan;
(C) The results of the demonstration of the effectiveness of the Risk Reduction Plan measures, including verification of the modeling parameters for all of the TEUs for which risk was reduced; and
(D) The remaining source risk after completion of all risk reduction measures.
(6) Voluntary Risk Reductions. DEQ will not conduct community engagement public meetings, as described in OAR 340-245-0120(3), for the owner or operator of an existing source whose risk is less than or equal to the TBACT Level and that agrees to voluntarily reduce risk to below the Community Engagement Level in compliance with the following requirements:
(a) Voluntary Risk Reduction Plan. An owner or operator must submit for DEQ approval a Voluntary Risk Reduction Plan that follows the requirements and procedures in this rule for submittal of a Risk Reduction Plan to reduce risk to below the Community Engagement Level;
(b) The owner or operator must complete implementation of the Voluntary Risk Reduction Plan within the following timelines:
(A) Chronic risk.

(i) Two years from the effective date of the Toxic Air Contaminant Permit Addendum, or at an earlier time as required by DEQ for excess cancer and noncancer chronic risk; and
(ii) If additional time is needed to implement the risk reduction measures, the owner or operator must apply for a permit modification as specified under OAR 340-245-0100(8). If the owner or operator shows good cause for the modification based on unreasonable hardship to the source then DEQ may allow the owner or operator not more than two additional years beyond the initial two years to complete implementation of the voluntary risk reduction measures.
(B) Acute risk.
(i) One month from the effective date of the Toxic Air Contaminant Permit Addendum for acute risk; and
(ii) If additional time is needed to implement the risk reduction measures, the owner or operator must apply for a permit modification as specified under OAR 340-245-0100(8). If the owner or operator shows good cause based on unreasonable hardship to the source and an evaluation of health factors, including but not limited to severity of acute health effect, degree of scientific certainty, and averaging time of the acute TRV used to develop the RBC, then DEQ may allow the owner or operator up to and not more than 12 months to complete implementation of the voluntary risk reduction measures; and
(c) If the owner or operator does not complete implementation of the Voluntary Risk Reduction Plan within the approved time, DEQ may initiate the community engagement requirements under OAR 340-245-0120.
(7) Immediate Curtailment Risk Reduction Plan. If the results of the DEQ approved Level 3 or Level 4 Risk Assessment, submitted under OAR 340-245-0050, demonstrate source risk is greater than the Immediate Curtailment Level in OAR 340-245-8010 Table 1, the owner or operator must:
(a) Submit to DEQ, by the deadline provided in OAR 340-245-0030(1)(e), an Immediate Curtailment Risk Reduction Plan that describes the actions the source will take to immediately reduce risk below the Immediate Curtailment Level. The Immediate Curtailment Risk Reduction Plan must include:
(A) Specific actions to immediately reduce risk from Significant TEUs, which may include:
(i) Production activity reductions or process modifications;(ii) Material substitution or product reformulation;
(iii) Additional operations and maintenance; and
(iv) Improvements to, or installation of, pollution control devices;
(B) The amount of risk reduction anticipated from the actions included under paragraph (A) and all supporting estimation methods and calculations; and
(C) Monitoring procedures to ensure the anticipated reduction amounts in paragraph (B) are achieved;
(b) Fully implement the Immediate Curtailment Risk Reduction Plan within ten days of DEQ approval of the plan.
(8) If the owner or operator submits an incomplete Immediate Curtailment Risk Reduction Plan or if DEQ determines that the Immediate Curtailment Risk Reduction Plan is inadequate, then in addition to any other remedies available to DEQ, including authority pursuant to ORS 468.115, if applicable, DEQ may modify the Immediate Curtailment Risk Reduction Plan and order the owner or operator to comply with such plan. The owner or operator must fully implement the modified Immediate Curtailment Risk Reduction Plan within 10 days of receipt.
(9) The owner or operator must comply with the Immediate Curtailment Risk Reduction Plan until:
(a) DEQ issues a Toxic Air Contaminant Permit Addendum under OAR 340-245-0100 with an approved Risk Reduction Plan; and
(b) The owner or operator implements the approved Risk Reduction Plan.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.335

AMEND: 340-245-0140

RULE TITLE: Pollution Prevention

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating statutory authority.

RULE TEXT:

(1) The owner or operator of a source whose risk is greater than the TBACT Level, before any additional risk reduction measures are considered, is required to do an analysis of pollution prevention measures as provided in this rule.

(2) The owner or operator must evaluate pollution prevention measures that are likely to reduce or eliminate emissions of toxic air contaminants. If the owner or operator chooses to implement any such measures, the owner or operator must include that information in the Toxic Air Contaminant Permit Addendum application.

(3) An analysis of pollution prevention measures must include the following:

(a) A detailed review of source data, including TEU and process level data related to the toxic air contaminants of concern emitted by the source, including:

(A) A process flow diagram depicting all production steps, showing all chemical and material inputs and all processes through which material passes to form a product, and showing the point at which toxic air contaminants enter the system and leave the production unit, with identification of the inputs and outputs relevant to generation of toxic air contaminants; and

(B) Materials accounting which quantifies the total chemical inputs and outputs of a particular toxic air contaminant from each process, and ultimately, source-wide usage and emissions;

(b) The identification of pollution prevention options that includes measures focused on the toxic air contaminants, by-products (outputs, not inputs) and processes that have been mapped and quantified. The categories of toxic air contaminant pollution prevention options include, but are not limited to, the following:

(A) Chemical input alternatives evaluated for hazard characteristics, technical performance, cost and availability, and exposure;

(B) Product reformulation;

(C) Production process redesign or modification;

(D) Production process modernization;

(E) Improved operations and maintenance;

(F) In-process recycling; and

(G) Inventory management controls;

(c) The technical screening and feasibility evaluation of toxic air contaminant pollution prevention options include, but are not limited to, the following:

(A) Performance needs for the application, process or product that contains the toxic air contaminant for which the pollution prevention option is being sought;

(B) Identification of the option as favorable with respect to performance by other industries;

(C) Availability as “off-the-shelf” technology with demonstrated successful use;

(D) Compatibility of the option with existing process technology;

(E) Effects on product quality and compliance with customer specifications; and

(F) Long term viability of the option;

(d) The economic feasibility evaluation of toxic air contaminant pollution prevention options to determine all of the costs and savings associated with implementing the option, include, but are not limited to, the following:

(A) Direct costs or savings (e.g., capital investment, operations and maintenance, annual chemical costs vs. per unit cost);

(B) Indirect costs or savings (e.g., reduced worker health and safety costs, compliance cost reductions, and lower waste and by-product management costs);

(C) Effects on future liability (e.g., liability insurance premium reductions);

(D) Non-monetized costs or benefits (e.g., improved company public image and community relations); and

(E) New revenue sources associated with this option (e.g., will there be new markets for modified products).

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.335

AMEND: 340-245-0150

RULE TITLE: Postponement of Risk Reduction

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating statutory authority.

RULE TEXT:

(1) Postponement of risk reduction is only available for existing sources for excess cancer and noncancer chronic risk, and cannot be approved if risk is over the Immediate Curtailment Level. An owner or operator may request postponement of risk reduction for one five year period. After that five year period, the owner or operator must reduce risk in accordance with OAR 340-245-0130.

(2) An owner or operator of an existing source requesting postponement of the requirement to reduce risk for one or more significant TEUs must submit a request to DEQ that includes the following:

(a) Information proving inability to pay as described in section (4);

(b) The TEUs for which the postponement is being requested;

(c) An analysis of:

(A) All risk reduction measures that the owner or operator is required to undertake to reduce risk; and

(B) The cost to install, operate and maintain each risk reduction measure identified in paragraph (A) for which a postponement is being requested;

(d) A description of any other interim risk reduction measures, including a pollution prevention analysis under OAR 340-245-0140, that will be taken to reduce risk in lieu of implementing each risk reduction measure identified in paragraph (c)(A) for which a postponement is being requested and when those interim risk reduction measures will be implemented; and

(e) The number of employees at the source.

(3) An owner or operator must include a postponement request in the source's Toxic Air Contaminant Permit Addendum application under OAR 340-245-0100.

(4) The owner or operator making a request to postpone risk reduction:

(a) Must use the applicable U.S. Environmental Protection Agency's ABEL, INDIPAY or MUNIPAY computer model, or a substantially equivalent analysis approved by DEQ, to evaluate financial condition or ability to pay the full cost of reducing risk or meeting TBACT in accordance with EPA standards for determining ability to pay. The models' standard input values are presumed to apply unless the owner or operator can demonstrate that the standard values do not reflect the owner's or operator's actual circumstances. DEQ may generally determine that the owner or operator is able to pay if the model results show that the owner or operator has a 70% probability of being able to absorb the cost of meeting TBACT or implementing other physical, operational or process changes that could be made to reduce risk; and

(b) Is required to provide DEQ, on a confidential basis if the information meets the requirements of OAR 340-214-0130, audited financial information about the source. The information must include federal tax returns for the most recent three years, the most current year's audited financial statement, a signed auditor's statement provided by a certified public accountant, the source's latest income statement and balance sheet, and other information regarding the owner's or operator's financial condition on a form required by DEQ. The information will be held as confidential to the extent consistent with the Oregon Public Records Law, ORS 192.311 through 192.478.

(5) Negotiation and consultation.

(a) DEQ may negotiate alternatives to the postponement with the owner or operator, and may consider such alternatives in the final determination regarding whether to approve the postponement; and

(b) DEQ will consult with OHA, local elected officials, local Tribal governing bodies, and relevant state and federal agencies that have jurisdiction in the notification area before making a final determination regarding the postponement.

(6) DEQ may grant a request for postponement of risk reduction in full or in part and impose any conditions, implementation of reasonable alternative measures, and implementation schedules that DEQ determines are appropriate based on the following:

(a) Evaluating the following at exposure locations where risk will exceed an applicable Risk Action Level:
(A) The presence of sensitive populations, including people with low income, members of a minority group, and residents under five years old; and
(B) The total population that lives within the notification area of the source;
(b) Considering both the potential economic harm to the owner or operator of the source of requiring that the owner or operator make the identified risk reductions against the burden of risk to the exposed population if the risk reductions are postponed.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.335

AMEND: 340-245-0200

RULE TITLE: Risk Estimates

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating table references, adding clarifying language and updating statutory authority.

RULE TEXT:

(1) When a risk assessment is required under this division, the risk assessment must consider the toxic air contaminants and the Risk-Based Concentrations listed in OAR 340-245-8010 Table 2 to assess excess cancer and noncancer risk.

(2) Directions for using the Level 1 Risk Assessment Dispersion Factor Tables.

(a) An owner or operator that chooses to perform a Level 1 Risk Assessment under OAR 340-245-0050, must calculate a separate sum of risk for each of the following categories: excess cancer risk, chronic noncancer risk, and acute noncancer risk for the applicable exposure scenarios;

(b) When making this calculation, the owner or operator must use the emissions inventory submitted under OAR 340-245-0040(1) for:

(A) Excess cancer risk and chronic noncancer risk, the average annual emission rates; and

(B) Acute noncancer risk, the maximum daily emission rates.

(c) The owner or operator must perform each of the following calculations in paragraphs (A) and (B), except as allowed in paragraph (C):

(A) For excess cancer risk and chronic noncancer risk:

(i) For each TEU with emissions from a stack, vent, duct, or equivalent opening, use the stack height and distance to the nearest exposure locations to identify the appropriate dispersion factor under OAR 340-245-8010 Table 3A. If the TEU is a volume fugitive source that is not emitted from a stack, vent, duct, or equivalent opening, use the area and height of the building and distance to the nearest exposure locations to identify the appropriate dispersion factor under OAR 340-245-8010 Table 3C;

(ii) For each TEU and each toxic air contaminant emitted from the TEU, multiply the annual emission rate by the dispersion factor identified under subparagraph (i) to calculate an air concentration at the nearest exposure location;

(iii) For each TEU, divide the air concentration of each toxic air contaminant calculated under subparagraph (ii) by the appropriate RBC of that toxic air contaminant under OAR 340-245-8010 Table 2;

(iv) For each TEU, add up the risk from each toxic air contaminant calculated under subparagraph (iii); and

(v) For all TEUs, add up all of the risks calculated under subparagraph (iv) to obtain the total excess cancer risk in one million or the total chronic noncancer Hazard Index for the entire source. For chronic noncancer risk, Hazard Indices may be calculated by noncancer target organ or organ systems in consultation with DEQ;

(vi) When an existing source emits a mixture of toxic air contaminants assigned noncancer TBACT Risk Action Levels of both a Hazard Index of 3 and a Hazard Index of 5 as identified in OAR 340-245-8010, Table 2, and the combined Hazard Index for all TACs is greater than 3, the owner or operator must calculate a Risk Determination Ratio using the formula in section (5) of this rule.

(B) For acute noncancer risk:

(i) For each TEU with emissions from a stack, vent, duct, or equivalent opening, use the stack height and distance to the nearest exposure location to identify the appropriate dispersion factor under OAR 340-245-8010 Table 3B. If the TEU is a volume fugitive source that is not emitted from a stack, vent, duct, or equivalent opening, use the area and height of the building and distance to the nearest exposure locations to identify the appropriate dispersion factor under OAR 340-245-8010 Table 3D;

(ii) For each TEU and each toxic air contaminant emitted from the TEU, multiply the maximum daily emission rate by the dispersion factor identified under subparagraph (i) to calculate an air concentration at the nearest exposure location;

(iii) For each TEU, divide the air concentration of each toxic air contaminant calculated under subparagraph (ii) by the acute RBC for that toxic air contaminant under OAR 340-245-8010 Table 2

(iv) For each TEU, add up the risk from each toxic air contaminant calculated under subparagraph (iii); and

(v) For all TEUs, add up all of the risks calculated under subparagraph (iv) to obtain the total acute noncancer Hazard Index for the entire source. Hazard Indices may be calculated by noncancer target organ or organ systems in consultation with DEQ;
(vi) When an existing source emits a mixture of toxic air contaminants assigned noncancer TBACT Risk Action Levels of both a Hazard Index of 3 and a Hazard Index of 5 as identified in OAR 340-247-8010, Table 2, and the combined Hazard Index for all TACs is greater than 3, the owner or operator must calculate a Risk Determination Ratio using the formula in section (5) of this rule.
(C) Instead of using stack height and distance or area and height of the building and distance to the nearest exposure locations to obtain the appropriate dispersion factor under OAR 340-245-8010 Table 3, the owner or operator may instead use, as a default, the most conservative dispersion factor;
(i) For emissions from a stack, vent, duct, or equivalent opening, use the dispersion factor associated with a stack height of five meters and an exposure location distance of 50 meters, which is listed in the upper-left corner of OAR 340-245-8010 Table 3A and 3B;
(ii) For volume fugitive emissions that are not emitted from a stack, vent, duct, or equivalent opening, use the dispersion factor associated with an area of less than or equal to 3,000 square feet, a building height of less than or equal to 20 feet, and an exposure location distance of 50 meters, which is listed in the upper-left corner of OAR 340-245-8010 Table 3C and 3D; and
(iii) Using these default dispersion factors will result in protective calculations of risk. If the risks calculated using these default dispersion factors are less than or equal to the applicable Risk Action Levels, the owner or operator may choose to use the risks calculated in this manner to show compliance with the Source Risk Limits. However, if the actual source characteristics such as terrain features, exposure location distances less than 50m, unusual stack or building configurations, or other factors, invalidate the assumptions used to develop the Level 1 Risk Assessment Dispersion Factor Tables, DEQ at its discretion, may disapprove the Level 1 assessment, as described in OAR 340-245-0050 (8)(c).
(3) Sum of Risk calculation procedure for Level 2, Level 3 and Level 4 Risk Assessments.
(a) An owner or operator that chooses to perform a Level 2, Level 3 or Level 4 Risk Assessment under OAR 340-245-0050, must calculate a separate sum of risk for each of the following risk categories: excess cancer risk, chronic noncancer risk, and acute noncancer risk for the applicable exposure locations;
(b) When making this calculation, the owner or operator must use the following modeled ambient concentrations for each toxic air contaminant at all exposure locations:
(A) For excess cancer risk and chronic noncancer risk, the annual average concentrations must be used; and
(B) For acute noncancer risk, the maximum daily concentrations must be used;
(c) The owner or operator must perform the following calculations for each of the risk categories listed in subsection (a) and using the concentrations in subsection (b):
(A) For each TEU, divide the modeled concentration of each toxic air contaminant by the appropriate RBC of that toxic air contaminant under OAR 340-245-8010 Table 2 ensuring that the concentration is expressed in micrograms per cubic meter;
(B) For each TEU, add up the risk from each toxic air contaminant calculated under paragraph (A); and
(C) For all TEUs at each exposure location, add up all of the risks calculated under paragraph (B) to obtain the total excess cancer risk in one million, the total chronic noncancer Hazard Index, or the total acute noncancer Hazard Index for the entire source. For noncancer risk, Hazard Indices may be calculated by noncancer target organ or organ systems in consultation with DEQ.
(D) When an existing source emits a mixture of toxic air contaminants assigned noncancer TBACT Risk Action Levels of both a Hazard Index of 3 and a Hazard Index of 5 as identified in OAR 340-247-8010, Table 2, and the combined Hazard Index for all TACs is greater than 3, the owner or operator must calculate a Risk Determination Ratio using the formula in section (5) of this rule.
(4) Significant figures and rounding. When a risk is calculated for comparison to a Risk Action Level or Source Risk Limit:
(a) The final risk calculation must be rounded off as follows:

(A) For comparison to the Aggregate TEU Level, Risk Determination Ratio, and the Source Permit Level, round off to one decimal place; and
(B) For comparison to other Risk Action Levels or Source Risk Limits, round off to a whole number;
(b) Round up if the last figure to be rounded off is 5 or greater, otherwise round down.
(c) Use of rounded numbers in making final risk calculations is not allowed. Only the final risk number may be rounded as described in this section.
(5) Calculating a Risk Determination Ratio. The formula for calculating a Risk Determination Ratio is:

Combined Noncancer Risk for HI3 chemicals = (Concentration of HI3 chemical #1 / Risk-Based Concentration for chemical #1) + (Concentration of HI3 chemical #2 / Risk-Based Concentration for chemical #2) + continue for all HI3 chemicals emitted
Combined Noncancer Risk for HI5 chemicals = (Concentration of HI5 chemical #1 / Risk-Based Concentration for chemical #1) + (Concentration of HI5 chemical #2 / Risk-Based Concentration for chemical #2) + continue for all HI5 chemicals emitted
Risk Determination Ratio = (Combined Risk for HI3 chemicals / 3) + (Combined Risk for HI5 chemicals / 5)
HI3 = Toxic air contaminants assigned noncancer TBACT Risk Action Level of 3 (OAR 340-247-8010, Table 2 and OAR 340-245-8010, Table 2.
HI5 = Toxic air contaminants assigned noncancer TBACT Risk Action Level of 5 (OAR 340-247-8010, Table 2 and OAR 340-245-8010, Table 2.
Concentration = monitored or modeled concentrations of toxic air contaminant at exposure location for use in risk assessment.
RBC = risk-based concentrations in OAR 340-245-8010 Table 2.

STATUTORY/OTHER AUTHORITY: ORS 468.020, ORS 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, Or Laws 2018, ch. 102, § 7, 468A.135, 468A.337

STATUTES/OTHER IMPLEMENTED: ORS 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, Or Laws 2018, ch. 102, § 7, 468A.337, 468A.335

AMEND: 340-245-0210

RULE TITLE: Modeling and Risk Assessment Work Plan Requirements

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating statutory authority.

RULE TEXT:

The owner or operator of a source must follow the applicable procedures in this rule when required to perform a risk assessment under OAR 340-245-0050 or 340-245-0060.

(1) Modeling Requirements. All modeled estimates of ambient concentrations required under this division must be based on the applicable air quality models and other requirements as specified in 40 CFR part 51, Appendix W, "Guidelines on Air Quality Models (Revised)," or a substantially equivalent model or requirement approved by DEQ. Any change or substitution from models and procedures specified in 40 CFR part 51, Appendix W must be approved by DEQ in advance and incorporated in the modeling protocol. AERSCREEN and AERMOD are examples of approved air quality models.

(a) When choosing to perform a Level 1 Risk Assessment or modeling for a Level 2, Level 3 or Level 4 Risk Assessment, the owner or operator of a source must first submit a modeling protocol that must be approved by DEQ as required in OAR 340-245-0030. The necessary information to perform any modeling will depend on the risk assessment level and the model being used, if any, and may include but is not limited to:

(A) Toxic air contaminant emission rates based on the emissions inventory submitted under OAR 340-245-0040(1);

(B) Stack parameter and building data, including stack height above ground, stack orientation and configuration, exit diameter, exit velocity, and exit temperature, for all existing and proposed emission points from the source, and dimension data of buildings;

(C) Meteorological and topographical data;

(D) Information about the dispersion models and modeling parameters used;

(E) Exposure locations where ambient concentrations will be modeled;

(F) For determining exposure locations where ambient concentrations will be modeled, an owner or operator may provide documentation to demonstrate an area is not being used in the manner allowed by the land use zoning at the time the modeling is to be performed, and may request that the land use zoning classification of these areas be excluded in determining chronic exposure locations. If DEQ approves an exclusion under this paragraph, then:

(i) The owner or operator must model the approved locations based on their actual use;

(ii) The owner or operator must annually submit to DEQ documentation showing the areas subject to the excluded land use zoning classification continue to not be used in the manner allowed by the land use zoning applicable to the area; and

(iii) If the annual documentation provided under subparagraph (ii) shows the area is being used in the manner allowed by the land use zoning and results in potential exposure to toxic air contaminants from the source, the owner or operator must update the risk assessment based on the change in use and apply for a Toxic Air Contaminant Permit Addendum modification under OAR 340-245-0100(8) or for an operating permit modification under OAR 340 division 216 or 218 using the procedures in this division, if applicable;

(G) Use of other exposure locations where DEQ determines, based on documented evidence, that an area is not being used in the manner allowed by the land use zoning at the time the modeling is to be performed, such area should be considered an exposure location based on its actual use; and

(H) Other information that may be necessary to estimate air quality concentrations and risk at exposure locations;

(b) For the purpose of any risk assessment undertaken by DEQ, the owner or operator of any permitted or unpermitted source must submit the information in subsection (a) within 30 days of the written request from DEQ. DEQ shall use the procedures in OAR 340-245-0030 to review the information in determining its completeness, consider extensions requests, and request additional information, if needed.

(2) Risk assessment work plan requirements. When choosing to conduct a Level 3 or Level 4 Risk Assessment, the owner

or operator of a source must submit a risk assessment work plan that must be approved by DEQ as required in OAR 340-245-0030. The work plan must be developed in consultation with DEQ and include but is not limited to:
(a) A problem formulation step ending with development of a conceptual site model identifying TEUs and exposure locations;
(b) An exposure assessment that models or measures toxic air contaminant concentrations at exposure locations;
(c) A risk characterization presenting a quantitative calculation of excess cancer, chronic noncancer and acute noncancer health risks associated with human exposure to toxic air contaminant emissions from the source;
(d) A quantitative or qualitative uncertainty evaluation of appropriate elements of the risk assessment;
(e) A Level 4 Risk Assessment must also include a toxicity assessment evaluating the carcinogenic effects, noncarcinogenic chronic effects, and noncarcinogenic acute effects of toxic air contaminants to which human populations may be exposed, and determining persistence and bioaccumulation potential. Sources may not consider Toxicity Reference Values other than those listed in OAR 340-247-8010 Table 2; and
(f) In a Level 4 Risk Assessment, the owner or operator may propose modifications to default exposure assumptions, including but not limited to:
(A) Exposure times, frequencies, and durations;
(B) Relative bioavailability of chemicals; and
(C) Multipathway considerations for persistent, and bioaccumulative and toxic chemicals.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.335

AMEND: 340-245-0220

RULE TITLE: TBACT and TLAER Procedures

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating statutory authority.

RULE TEXT:

(1) If required to meet TBACT or TLAER on any significant TEU, the owner or operator of a source must perform a TBACT or TLAER analysis.

(a) The owner or operator of an existing source must conduct a case-by-case TBACT analysis under section (3), except as provided in section (2);

(b) The owner or operator of a new or reconstructed source must conduct a case-by-case TLAER analysis under section (4);

(c) The owner or operator must submit the TBACT or TLAER analysis to DEQ for approval, and the owner or operator must pay the case-by-case TBACT or TLAER fee, as applicable, specified in OAR 340-216-8030 Table 3 and OAR 340-245-0400;

(d) A TEU is determined to meet TBACT if DEQ approves the TBACT analysis for the TEU and the owner or operator has implemented all operational or source modifications required to meet TBACT, or will implement them on an enforceable compliance schedule included in its Toxic Air Contaminant Permit Addendum or operating permit; and

(e) A TEU is determined to meet TLAER if DEQ approves the TLAER analysis for the TEU and the owner or operator has implemented all operational or source modifications required to meet TLAER upon beginning operation of the new or reconstructed source.

(2) Presumptive TBACT. For an existing TEU, compliance with emission control requirements, work practices or limitations established by a major source NESHAP adopted by the EPA after 1993 and before April 10, 2018 is deemed to be TBACT, provided that:

(a) The emission control requirements, work practices or limitations result in an actual reduction to the emissions of the hazardous air pollutants regulated under the NESHAP; and

(b) There are no other toxic air contaminants emitted by the source that:

(A) Are not controlled by the emission control requirements, work practices or limitations established by a major source NESHAP; and

(B) Materially contribute to public health risks;

(c) TEUs that are subject to and comply with OAR 340-244-9000 through 340-244-9090, Colored Art Glass Manufacturing rules, or OAR 340-245-9000 through 340-245-9080, Colored Art Glass Manufacturing rules, meet TBACT and a case-by-case determination is not required for such TEUs.

(3) Case-by-Case TBACT determination. The owner or operator of the TEU must submit a proposed case-by-case TBACT analysis to DEQ for review and approval.

(a) TBACT must be a toxic air contaminant emissions limitation or emissions control measure based on the maximum degree of reduction of toxic air contaminants that is feasible considering:

(A) What has been achieved in practice for:

(i) Sources in the same class as the source to which the toxic air contaminant emissions limitation or control measure will apply, as classified under ORS 468A.050; or

(ii) Processes or emissions similar to the processes or emissions of the source;

(B) Energy, health, and environmental impacts not related to air quality; and

(C) Economic impacts and cost-effectiveness, including the costs of changing existing processes or equipment or adding equipment or controls to existing processes and equipment;

(b) TBACT may be based on a design standard, equipment standard, work practice standard or other operational standard, or a combination thereof; and

(c) In assessing the cost-effectiveness of any measure for purposes of determining TBACT for a source, DEQ will assess

only the economic impacts and benefits associated with controlling toxic air contaminants.
(4) Case-by-Case TLAER determination. The owner or operator of the TEU must submit a proposed case- by-case TLAER analysis to DEQ for review and approval.
(a) DEQ will review a case-by-case TLAER analysis and ensure that it is a toxic air contaminant emissions limitation or emissions control measure that is the maximum degree of reduction technically feasible without regard to energy impacts, health and environmental impacts, or economic impacts; and
(b) TLAER is not considered achievable if the cost of control is so great that a new source could not be built or operated because it was rendered economically infeasible. If some other facility in the same or a comparable industry uses that control technology, then such use constitutes evidence that the cost to the industry of that control is not prohibitive.
(5) Periodic TBACT or TLAER Reviews. If the owner or operator is required to meet TBACT or TLAER, the owner or operator must perform and submit periodic TBACT or TLAER reviews in a TBACT or TLAER update report as follows:
(a) For all significant TEUs for which the most recent TBACT or TLAER determination concluded that no toxic air contaminant emission limits or additional control measure was required, submit a TBACT or TLAER review to DEQ with each permit renewal;
(b) For all significant TEUs that currently meet TBACT or TLAER through toxic air contaminant emission limits or control measures, submit a TBACT or TLAER review when notified by DEQ. If DEQ learns of new technologies, devices or practices that could reduce toxic air contaminant emissions or improve on control measures, DEQ will notify the owner or operator in writing that a TBACT or TLAER review is required and may specify a submittal deadline in the notification;
(c) The TBACT or TLAER update reports must include the following:
(A) A review identifying all new or improved emissions control measures, if any, that can apply to any of the significant TEUs at the source, whether they are currently controlled or not; and
(B) For each new or improved emissions control measure identified, a statement whether or not the owner or operator intends to apply the control measure;
(i) If the owner or operator intends to apply the control measure, then the owner or operator must provide an estimated date by which the control measure will be applied; or
(ii) If the owner or operator does not intend to apply the control method, then the owner or operator must provide justification for not applying it, including at a minimum, a review following the procedures of OAR 340-245-0220(3) or (4);
(d) When a new or improved emissions control measure is identified under subsection (c), DEQ must review the control measure and any justification provided by the owner or operator for not applying the control measure, and will make a preliminary determination with regard to whether or not the owner or operator must apply the control measure
(A) If DEQ's preliminary determination is that the owner or operator must apply the control measure, DEQ shall provide the owner or operator with notice and opportunity to provide input on a final determination. In making the final determination, DEQ shall take into consideration the following:
(i) The remaining service life of any existing emission control system that would be replaced;
(ii) The relative effectiveness of the new or improved control measure to reduce the source risk as compared to the risk using the existing control measure;
(iii) The cost of installation and operation of the new or improved control measure, including the cost of removing any existing control measure; and
(iv) Any other factors that DEQ finds are relevant;
(B) If DEQ's final determination is that the owner or operator must apply the control measure, then DEQ may:
(i) After consultation with the owner or operator, determine the date by which the owner or operator must apply the control measure; and
(ii) Determine a new Source Risk Limit based on information on the amount of toxic air contaminants removed by the control measure and issue a modified Toxic Air Contaminant Permit Addendum or operating permit.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155,

468A.135, 468A.337

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.335

AMEND: 340-245-0230

RULE TITLE: Toxic Air Contaminant Monitoring Requirements

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating statutory authority.

RULE TEXT:

(1) An owner or operator of a source that chooses to perform toxic air contaminant monitoring under OAR 340-245-0050 must submit an application for a Toxic Air Contaminant Permit Addendum and a Toxic Air Contaminant Monitoring Plan, developed in consultation with and approved by DEQ in a Toxic Air Contaminant Permit Addendum, before beginning toxic air contaminant monitoring. Toxic air contaminant monitoring must be conducted for a period of not less than 12 months with at least 12 months of valid data with greater than 75 percent data completeness per quarter.

(2) Public involvement requirements. DEQ shall work with the owner or operator to develop public information concerning an approved Toxic Air Contaminant Monitoring Plan and the timeline for the approved Toxic Air Contaminant Monitoring Plan.

(3) Toxic air contaminant monitoring requirements. The owner or operator must submit a Toxic Air Contaminant Monitoring Plan in accordance with OAR 340-245-0030 that includes but is not limited to:

(a) Identification of all toxic air contaminants that will be monitored;

(b) A description of all proposed monitoring locations;

(c) A description of the monitoring and analysis protocols for each toxic air contaminant to be monitored, including at a minimum:

(A) The monitoring equipment and methods to be used for each toxic air contaminant;

(B) The sampling methods, including sample handling and custody storage requirements;

(C) The frequency of sampling at each monitoring location; the duration of each sample (i.e., the length of time in hours that each sample runs), and time of year;

(D) Analytical methods and the analytical method detection limits and reporting limits to be used for each toxic air contaminant;

(E) Quality assurance and quality control measures to be taken and who will be performing these measures; and

(F) Descriptions of security measures to protect the monitoring equipment;

(d) A description of how to determine and account for the ambient concentration of each toxic air contaminant being monitored that results from all causes other than the source under consideration, including natural and unknown causes;

(e) A description of how and where meteorological monitoring will be performed and the meteorology equipment used; and

(f) A description of how the data will be reduced and how often the results will be reported to DEQ.

(4) Reporting Requirements. The owner or operator of a source that has been issued a Toxic Air Contaminant Permit Addendum or operating permit that includes air monitoring requirements must report to DEQ the following information:

(a) Monthly monitoring result reports, no more than 30 days after all monitoring data becomes available for the month to which the data applies. The reports must include but is not limited to:

(A) Ambient toxic air contaminant concentrations, all daily risks and all monthly average risks from all monitoring locations specified in the Air Monitoring Plan;

(B) Meteorological data summary;

(C) Daily production data; and

(D) A description of any excess emissions or upset conditions that may have affected the ambient toxic air contaminant concentrations monitored, including conditions outside the property boundary that may affect ambient air (i.e., forest fires, house fires, train derailments, accidental spills, etc.);

(b) An air monitoring final report, no more than 60 calendar days after completing all Toxic Air Contaminant Monitoring Plan requirements that also includes a description of any process changes that have occurred during the air monitoring period that may affect the results of the monitoring.
(5) Air monitoring results.
(a) Upon completion of the air monitoring, the owner or operator must submit to DEQ an assessment of risk based on the air monitoring data and other relevant information;
(b) For all toxic air contaminants that are not monitored, or for which monitoring results were inconclusive, the owner or operator must use the modeled concentrations of those toxic air contaminants and add the risk from the modeled concentrations to the risk from the monitored concentrations to arrive at a total risk from the source; and
(c) Upon receipt of air monitoring data and assessment of risk under subsections (a) and (b), DEQ will review the submittal and approve or deny it in accordance with the procedures OAR 340-245-0100(4).

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.335

REPEAL: 340-245-0300

RULE TITLE: Toxicity Reference Values

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Removing rule from Division 245 and moving to Division 247.

RULE TEXT:

(1) This rule lists sources of toxicity information that OHA and DEQ consider authoritative in terms of their scientific rigor and methods for producing toxicity information. OHA and DEQ will recommend adoption and use of Toxicity Reference Values from the toxicity information published by the following authoritative sources:

(a) DEQ Ambient Benchmark Concentrations specified in OAR chapter 340, division 246;

(b) DEQ and OHA Short-term Guideline Concentrations;

(c) EPA Integrated Risk Information System (IRIS) or Office of Superfund Remediation and Technology Innovation (OSRTI);

(d) United States Agency for Toxic Substances and Disease Registry (ATSDR); and

(e) California's Office of Environmental Health Hazard Assessment (OEHHA).

(2) DEQ will calculate Toxicity Reference Values using one in one million as the target excess cancer risk level or a hazard quotient of one for noncancer Toxicity Reference Values.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, Or Laws 2018, ch. 102, § 3

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, Or Laws 2018, ch. 102, §§ 2 and 3

AMEND: 340-245-0310

RULE TITLE: Process for Updating Risk-Based Concentrations for Toxic Air Contaminants

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating table references and simplifying language. Updating statutory authority.

RULE TEXT:

(1) Purpose. As risk assessment and toxicological sciences advance, it is important that health risk-based standards for air quality continue to reflect the latest practices and science. The list of toxic air contaminants that are regulated and their RBCs represent one area where regulations will need regular updating to accommodate advancing science and practices to ensure that impacts to public health from industrial air emissions are minimized.

(2) Process for updating risk-based concentrations.

(a) DEQ will propose, through a public rulemaking process, to revise, add, or remove risk-based concentrations for toxic air contaminants whenever changes are proposed to their toxicity reference values in OAR 340-247-8010 Table 2.

(b) As needed, DEQ will propose, through a public rulemaking process, to revise risk-based concentrations if new information indicates the need to adjust exposure factors or other adjustment factors for individual toxic air contaminants or groups of toxic air contaminants.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.135, 468A.337

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, 468A.337, 468A.335

AMEND: 340-245-0320

RULE TITLE: Standards and Criteria for Noncancer Risk Action Levels for Existing Contamination Sources

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating table references.

RULE TEXT:

(1) The noncancer Risk Action Levels for existing sources are identified in OAR 340-245-8010, Table 1.

(2) The toxic air contaminants for which an adjusted noncancer Risk Action Level will apply are identified in OAR 340-247-8010, Table 2, and OAR 340-245-8010, Table 2 in the column named “Noncancer TBACT RAL.”

(3) An adjusted Risk Action Level will be applied to existing sources that emit one or more toxic air contaminants identified in OAR 340-247-8010, Table 2, or OAR 340-245-8010, Table 2 with a noncancer TBACT RAL of a Hazard Index of 3. For sources that emit a mixture of toxic air contaminants with noncancer TBACT Risk Action Levels of both a Hazard Index of 3 and a Hazard Index of 5, the Risk Determination Ratio calculation expresses the degree to which the applicable Risk Action Level may be adjusted for each source.

STATUTORY/OTHER AUTHORITY: ORS 468.020, Or Laws 2018, ch. 102, § 7

STATUTES/OTHER IMPLEMENTED: Or Laws 2018, ch. 102, §7

AMEND: 340-245-0400

RULE TITLE: Cleaner Air Oregon Fees

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Adding statutory authority.

RULE TEXT:

(1) Any owner or operator that has been issued or applies for an Oregon Title V Operating Permit under OAR chapter 340, division 218 must submit the annual CAO base fees to DEQ as specified in OAR 340- 220-0050(4).

(2) Any owner or operator that has been issued or applies for a Basic, General, Simple or Standard Air Contaminant Discharge Permit under OAR chapter 340, division 216 must submit the annual CAO base fee to DEQ as specified in OAR 340-216-8020 Table 2 Part 3.

(3) When notified in writing by DEQ, the owner or operator of an existing source that must perform a risk assessment is required to pay the applicable existing source call-in fee in OAR 340-216-8030 Table 3 within 30 days of receiving DEQ notification.

(4) Owners or operators of new or reconstructed sources must pay the applicable new source consulting fee and the applicable specific activity fees in OAR 340-216-8030 Table 3 with the permit application.

(5) Any owner or operator required to apply for a Toxic Air Contaminant Permit Addendum must also submit the applicable Cleaner Air Oregon Specific Activity Fees specified in OAR 340-216-8030 Table 3 to DEQ in accordance with OAR 340-245-0030.

(a) The fees in OAR 340-216-8030 Table 3 are additive in most cases;

(b) A TBACT/TLAER Review fee will be due to DEQ per TEU. When reviewing multiple similar TEUs, DEQ may elect to waive additional TEU review fees for multiple similar TEU reviews if the TEUs have similar emissions and emission rates;

(c) If one TEU requires two different air pollution control devices because it emits different types of toxic air contaminants (e.g., particulate matter and volatile organic compounds), then two TBACT/TLAER Review fees will be due and payable to DEQ;

(d) The individual TEU fees can be additive or charged individually, depending on the situation. If an owner or operator is constructing or modifying multiple, identical TEUs, then one TEU Risk Assessment fee may be charged. If the TEUs were not identical, then multiple TEU Risk Assessment fees will be due and payable to DEQ;

(e) A community engagement fee of high, medium, or low for each meeting, will be due to DEQ based on DEQ's determination of the complexity and nature of the needed outreach and engagement activities; and

(f) A source test fee is required when an owner or operator submits a source test report for DEQ review under this division.

(A) The complex source test review fee is for multiple TEUs and multiple toxic air contaminant test methods;

(B) The moderate source test review fee is for a single TEU and multiple toxic air contaminant test methods; and

(C) The simple source test review fee is for a single TEU and a single toxic air contaminant test method.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.315, Or Laws 2018, ch. 102, § 13, 468A.135

STATUTES/OTHER IMPLEMENTED: ORS 468.065, 468A.010, 468A.015, 468A.025, 468A.035, 468A.040, 468A.050, 468A.070, 468A.155, 468A.315, Or Laws 2018, ch. 102, §§ 13 and 14

AMEND: 340-245-8010

RULE TITLE: Tables

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Combining tables from 340-245-8040 and 8050 into this rule.

RULE TEXT:

(1) Table 1 - Risk Action Levels

(2) Table 2 - Risk-Based Concentrations

(3) Table 3 - Level 1 Risk Assessment Dispersion Factors

STATUTORY/OTHER AUTHORITY: ORS 468.020, ORS 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, Or Laws 2018, ch. 102, § 7, 468A.135

STATUTES/OTHER IMPLEMENTED: ORS 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, Or Laws 2018, ch. 102, § 7

OAR 340-245-8010
Table 1
Risk Action Levels†

Applicability	Risk Action Level	Excess Cancer Risk per Million	Noncancer Hazard Index
New and Reconstructed Source	Aggregate TEU Level	0.5	0.1
	Source Permit Level	0.5	0.5
	Community Engagement Level	5	1
	TLAER Level	10	1
	Permit Denial Level	25	1
Existing Source	Aggregate TEU Level	2.5	0.1
	Source Permit Level	5	0.5
	Community Engagement Level	25	1
	TBACT Level	50	5[a] or 3[b] or Risk Determination Ratio of 1.0[c]
	Risk Reduction Level	200	10[a] or 6[b] or Risk Determination Ratio of 2.0[c]
	Immediate Curtailment Level	500	20[a] or 12[b] or Risk Determination Ratio of 4.0[c]

Footnotes for OAR 340-245-8010 Table 1:

† Facility risk that is equal to or less than the values in the table is considered compliant with the Risk Action Level. Risk Action Levels are considered consistent with benchmarks in Oregon Laws 2018, chapter 102 (Senate Bill (SB) 1541 (2018)).

a) If all toxic air contaminants emitted by the source are identified as HI5 in OAR 340-247-8010, Table 2, and OAR 340-245-8010, Table 2.

b) If all toxic air contaminants emitted by the source are identified as HI3 in OAR 340-247-8010, Table 2, and OAR 340-245-8010, Table 2.

c) If toxic air contaminants emitted by the source include contaminants listed as both HI3 and HI5 in OAR 340-247-8010, Table 2, and OAR 340-245-8010, Table 2, and a Risk Determination Ratio is required to be calculated under OAR 340-245-0200.

OAR 340-245-8010
Table 2
Risk-Based Concentrations

			Non cancer TBACTRAL [m]	Residential Chronic		Non-Residential Chronic				Acute
				Cancer RBC[a]	Non-cancer RBC[a]	Child Cancer RBC[a]	Child Non-cancer RBC[a]	Worker Cancer RBC[a]	Worker Non-cancer RBC[a]	Non-cancer RBC[a]
CASRN[b]	Chemical	Notes		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
75-07-0	Acetaldehyde		HI3	0.45	140	12	620	5.5	620	470
60-35-5	Acetamide			0.050		1.3		0.60		
67-64-1	Acetone		HI3		31,000		140,000		140,000	62,000
75-05-8	Acetonitrile		HI3		60		260		260	
107-02-8	Acrolein		HI5		0.35		1.5		1.5	6.9
79-06-1	Acrylamide	g	HI3	0.0059	6.0	0.062	26	0.12	26	
79-10-7	Acrylic acid		HI3		1.0		4.4		4.4	6,000
107-13-1	Acrylonitrile		HI3	0.015	5.0	0.38	22	0.18	22	220
309-00-2	Aldrin			0.00020		0.0053		0.0024		
107-05-1	Allyl chloride		HI3	0.17	1.0	4.3	4.4	2.0	4.4	
7429-90-5	Aluminum and compounds	l	HI5		5.0		22		22	
7664-41-7	Ammonia		HI3		500		2,200		2,200	1,200
62-53-3	Aniline		HI5	0.63	1.0	16	4.4	7.5	4.4	
7440-36-0	Antimony and compounds	l	HI3		0.30		1.3		1.3	1.0
140-57-8	Aramite			0.14		3.7		1.7		
7440-38-2	Arsenic and compounds	l	HI3	2.4E-05	0.00017	0.0013	0.0024	0.00062	0.0024	0.20
7784-42-1	Arsine		HI3		0.015		0.066		0.066	0.20
1332-21-4	Asbestos	I		4.3E-06		0.00011		5.2E-05		
103-33-3	Azobenzene			0.032		0.84		0.39		
71-43-2	Benzene		HI3	0.13	3.0	3.3	13	1.5	13	29
92-87-5	Benzidine (and its salts)	g		4.2E-06		4.4E-05		8.6E-05		
100-44-7	Benzyl chloride		HI3	0.020	1.0	0.53	4.4	0.24	4.4	240
7440-41-7	Beryllium and compounds	l	HI3	0.00042	0.0070	0.011	0.031	0.0050	0.031	0.020
111-44-4	*Bis*(2-chloroethyl) ether (BCEE)		HI3	0.0014		0.037		0.017		120
542-88-1	*Bis*(chloromethyl) ether		HI5	7.7E-05		0.0020		0.00092		1.4

OAR 340-245-8010
Table 2
Risk-Based Concentrations

			Non cancer TBACTRAL [m]	Residential Chronic		Non-Residential Chronic				Acute
				Cancer RBC[a]	Non-cancer RBC[a]	Child Cancer RBC[a]	Child Non-cancer RBC[a]	Worker Cancer RBC[a]	Worker Non-cancer RBC[a]	Non-cancer RBC[a]
CASRN[b]	Chemical	Notes		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
117-81-7	*Bis*(2-ethylhexyl) phthalate (DEHP)	c		0.080		11		5.0		
75-25-2	Bromoform			0.91		24		11		
74-83-9	Bromomethane (methyl bromide)		HI3		5.0		22		22	3,900
106-94-5	1-Bromopropane (n-propyl bromide)		HI3	0.48	33	12	150	5.7	150	1,700
106-99-0	1,3-Butadiene		HI3	0.033	2.0	0.86	8.8	0.40	8.8	660
78-93-3	2-Butanone (methyl ethyl ketone)		HI3		5,000		22,000		22,000	5,000
78-92-2	*sec*-Butyl alcohol		HI3		30,000		130,000		130,000	
7440-43-9	Cadmium and compounds	c, l	HI3	0.00056	0.0050	0.014	0.037	0.0067	0.037	0.030
105-60-2	Caprolactam		HI3		2.2		9.7		9.7	50
75-15-0	Carbon disulfide		HI3		800		3,500		3,500	6,200
56-23-5	Carbon tetrachloride		HI3	0.17	100	4.3	440	2.0	440	1,900
463-58-1	Carbonyl sulfide		HI3		10		44		44	660
57-74-9	Chlordane		HI3	0.010	0.020	0.26	0.088	0.12	0.088	0.20
108171-26-2	Chlorinated paraffins	j		0.040		1.0		0.48		
7782-50-5	Chlorine		HI3		0.15		0.66		0.66	170
10049-04-4	Chlorine dioxide		HI3		0.60		2.6		2.6	2.8
532-27-4	2-Chloroacetophenone		HI5		0.030		0.13		0.13	
108-90-7	Chlorobenzene		HI3		50		220		220	
75-68-3	1-Chloro-1,1-difluoroethane		HI3		50,000		220,000		220,000	
75-45-6	Chlorodifluoromethane (Freon 22)		HI3		50,000		220,000		220,000	
75-00-3	Chloroethane (ethyl chloride)		HI3		30,000		130,000		130,000	40,000
67-66-3	Chloroform		HI3		300		1,300		1,300	490
74-87-3	Chloromethane (methyl chloride)		HI3		90		400		400	1,000

OAR 340-245-8010
Table 2
Risk-Based Concentrations

			Non cancer TBACTRAL [m]	Residential Chronic		Non-Residential Chronic				Acute
				Cancer RBC[a]	Non-cancer RBC[a]	Child Cancer RBC[a]	Child Non-cancer RBC[a]	Worker Cancer RBC[a]	Worker Non-cancer RBC[a]	Non-cancer RBC[a]
CASRN[b]	Chemical	Notes		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
95-83-0	4-Chloro-*o*-phenylenediamine			0.22		5.7		2.6		
76-06-2	Chloropicrin		HI3		0.40		1.8		1.8	29
126-99-8	Chloroprene		HI3	0.0033	20	0.087	88	0.040	88	
95-69-2	*p*-Chloro-*o*-toluidine			0.013		0.34		0.16		
18540-29-9	Chromium VI, chromate and dichromate particulate	c, d	HI3	3.1E-05	0.083	0.00052	0.88	0.0010	0.88	0.30
7738-94-5	Chromium VI, chromic acid aerosol mist and chromium trioxide	c, d	HI3	3.1E-05	0.0021	0.00052	0.022	0.0010	0.022	0.0050
7440-48-4	Cobalt and compounds	l	HI3		0.10		0.44		0.44	
148[†]	Coke oven emissions	g		0.00095		0.0100		0.019		
7440-50-8	Copper and compounds	l	HI3							100
120-71-8	*p*-Cresidine			0.023		0.60		0.28		
1319-77-3	Cresols (mixture), including *m*-cresol, *o*-cresol, *p*-cresol		HI3		600		2,600		2,600	
135-20-6	Cupferron			0.016		0.41		0.19		
74-90-8	Cyanide, hydrogen		HI3		0.80		3.5		3.5	340
110-82-7	Cyclohexane		HI3		6,000		26,000		26,000	
50-29-3	DDT	e		0.010		0.27		0.12		
615-05-4	2,4-Diaminoanisole			0.15		3.9		1.8		
95-80-7	2,4-Diaminotoluene (2,4-toluene diamine)			0.00091		0.024		0.011		
333-41-5	Diazinon		HI3							10
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	g	HI3	9.8E-05	0.20	0.0010	0.88	0.0020	0.88	1.9
106-46-7	*p*-Dichlorobenzene (1,4-dichlorobenzene)		HI3	0.091	60	2.4	260	1.1	260	12,000
91-94-1	3,3'-Dichlorobenzidine			0.0029		0.076		0.035		
75-34-3	1,1-Dichloroethane (ethylidene dichloride)			0.63		16		7.5		

OAR 340-245-8010
Table 2
Risk-Based Concentrations

			Non cancer TBACTRAL [m]	Residential Chronic		Non-Residential Chronic				Acute
				Cancer RBC[a]	Non-cancer RBC[a]	Child Cancer RBC[a]	Child Non-cancer RBC[a]	Worker Cancer RBC[a]	Worker Non-cancer RBC[a]	Non-cancer RBC[a]
CASRN[b]	Chemical	Notes		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
156-60-5	*trans*-1,2-dichloroethene		HI3							790
75-09-2	Dichloromethane (methylene chloride)		HI3	59	600	620	2,600	1,200	2,600	2,100
78-87-5	1,2-Dichloropropane (propylene dichloride)		HI3		4.0		18		18	230
542-75-6	1,3-Dichloropropene		HI3	0.25	32	6.5	140	3.0	140	36
62-73-7	Dichlorvos (DDVP)		HI5		0.54		2.4		2.4	18
60-57-1	Dieldrin			0.00022		0.0057		0.0026		
200[†]	Diesel particulate matter		HI3	0.10	5.0	2.6	22	1.2	22	
111-42-2	Diethanolamine		HI3		0.20		0.88		0.88	
112-34-5	Diethylene glycol monobutyl ether		HI3		0.10		0.44		0.44	
111-90-0	Diethylene glycol monoethyl ether		HI5		0.30		1.3		1.3	
75-37-6	1,1-Difluoroethane		HI5		40,000		180,000		180,000	
60-11-7	4-Dimethylaminoazobenzene			0.00077		0.020		0.0092		
68-12-2	Dimethyl formamide		HI3		80		350		350	
57-14-7	1,1-Dimethylhydrazine		HI3							0.49
121-14-2	2,4-Dinitrotoluene			0.011		0.29		0.13		
123-91-1	1,4-Dioxane		HI3	0.20	30	5.2	130	2.4	130	7,200
122-66-7	1,2-Diphenylhydrazine (hydrazobenzene)			0.0045		0.12		0.055		
1937-37-7	Direct Black 38			7.1E-06		0.00019		8.6E-05		
2602-46-2	Direct Blue 6			7.1E-06		0.00019		8.6E-05		
16071-86-6	Direct Brown 95 (technical grade)			7.1E-06		0.00019		8.6E-05		
298-04-4	Disulfoton		HI3							6.0
106-89-8	Epichlorohydrin		HI3	0.043	3.0	1.1	13	0.52	13	1,300
106-88-7	1,2-Epoxybutane		HI5		20		88		88	
140-88-5	Ethyl acrylate		HI3		8.0		35		35	

OAR 340-245-8010
Table 2
Risk-Based Concentrations

			Non cancer TBACTRAL [m]	Residential Chronic		Non-Residential Chronic				Acute
				Cancer RBC[a]	Non-cancer RBC[a]	Child Cancer RBC[a]	Child Non-cancer RBC[a]	Worker Cancer RBC[a]	Worker Non-cancer RBC[a]	Non-cancer RBC[a]
CASRN[b]	Chemical	Notes		(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)
100-41-4	Ethyl benzene		HI3	0.40	260	10	1,100	4.8	1,100	22,000
106-93-4	Ethylene dibromide (EDB, 1,2-dibromoethane)		HI3	0.0017	9.0	0.043	40	0.020	40	
107-06-2	Ethylene dichloride (EDC, 1,2-dichloroethane)		HI3	0.038	7.0	1.0	31	0.46	31	
107-21-1	Ethylene glycol		HI3		400		1,800		1,800	2,000
111-76-2	Ethylene glycol monobutyl ether		HI3		82		360		360	29,000
110-80-5	Ethylene glycol monoethyl ether		HI3		70		310		310	370
111-15-9	Ethylene glycol monoethyl ether acetate		HI3		60		260		260	140
109-86-4	Ethylene glycol monomethyl ether		HI3		60		260		260	93
110-49-6	Ethylene glycol monomethyl ether acetate		HI3		1.0		4.4		4.4	
75-21-8	Ethylene oxide	g	HI3	0.00020	30	0.0021	130	0.0040	130	160
96-45-7	Ethylene thiourea			0.077		2.0		0.92		
239[†]	Fluorides	c	HI3		2.3		20		20	240
7782-41-4	Fluorine gas		HI3							16
50-00-0	Formaldehyde		HI3	0.17	9.0	4.3	40	2.0	40	49
111-30-8	Glutaraldehyde		HI5		0.080		0.35		0.35	4.1
76-44-8	Heptachlor			0.00077		0.020		0.0092		
1024-57-3	Heptachlor epoxide			0.00038		0.010		0.0046		
118-74-1	Hexachlorobenzene			0.0020		0.051		0.024		
87-68-3	Hexachlorobutadiene			0.045		1.2		0.55		
608-73-1	Hexachlorocyclohexanes (mixture) including but not limited to:	c		0.00017		0.018		0.0084		
319-84-6	Hexachlorocyclohexane, *alpha*-	c		0.00017		0.018		0.0084		

OAR 340-245-8010
Table 2
Risk-Based Concentrations

			Non cancer TBACTRAL [m]	Residential Chronic		Non-Residential Chronic				Acute
				Cancer RBC[a]	Non-cancer RBC[a]	Child Cancer RBC[a]	Child Non-cancer RBC[a]	Worker Cancer RBC[a]	Worker Non-cancer RBC[a]	Non-cancer RBC[a]
CASRN[b]	Chemical	Notes		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
319-85-7	Hexachlorocyclohexane, *beta*-	c		0.00017		0.018		0.0084		
58-89-9	Hexachlorocyclohexane, *gamma*- (Lindane)	c		0.00060		0.065		0.030		
77-47-4	Hexachlorocyclopentadiene		HI3		0.20		0.88		0.88	110
67-72-1	Hexachloroethane		HI3		30		130		130	58,000
822-06-0	Hexamethylene-1,6-diisocyanate		HI5		0.069		0.30		0.30	0.21
110-54-3	Hexane		HI3		700		3,100		3,100	
302-01-2	Hydrazine		HI3	0.00020	0.030	0.0053	0.13	0.0024	0.13	5.2
7647-01-0	Hydrochloric acid		HI3		20		88		88	2,100
7664-39-3	Hydrogen fluoride	c	HI3		2.1		19		19	16
7783-06-4	Hydrogen sulfide		HI3		2.0		8.8		8.8	98
78-59-1	Isophorone		HI3		2,000		8,800		8,800	
67-63-0	Isopropyl alcohol		HI3		200		880		880	3,200
98-82-8	Isopropylbenzene (cumene)		HI3		400		1,800		1,800	
7439-92-1	Lead and compounds	c, l	HI3		0.15		0.66		0.66	0.15
108-31-6	Maleic anhydride		HI5		0.70		3.1		3.1	
7439-96-5	Manganese and compounds	l	HI3		0.090		0.40		0.40	0.30
7439-97-6	Mercury and compounds	c, l	HI3		0.077		0.63		0.63	0.60
67-56-1	Methanol		HI3		4,000		18,000		18,000	28,000
101-14-4	4,4'-Methylene *bis*(2-chloroaniline) (MOCA)			0.0023		0.060		0.028		
101-77-9	4,4'-Methylenedianiline (and its dichloride)		HI5	0.00030	20	0.023	88	0.010	88	
101-68-8	Methylene diphenyl diisocyanate (MDI)		HI3		0.080		0.35		0.35	12
108-10-1	Methyl isobutyl ketone (MIBK, hexone)		HI3		3,000		13,000		13,000	
624-83-9	Methyl isocyanate		HI3		1.0		4.4		4.4	

OAR 340-245-8010
Table 2
Risk-Based Concentrations

			Non cancer TBACTRAL [m]	Residential Chronic		Non-Residential Chronic				Acute
				Cancer RBC[a]	Non-cancer RBC[a]	Child Cancer RBC[a]	Child Non-cancer RBC[a]	Worker Cancer RBC[a]	Worker Non-cancer RBC[a]	Non-cancer RBC[a]
CASRN[b]	Chemical	Notes		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
80-62-6	Methyl methacrylate		HI5		700		3,100		3,100	
1634-04-4	Methyl *tert*-butyl ether		HI3	3.8	8,000	100	35,000	46	35,000	8,000
90-94-8	Michler's ketone			0.0040		0.10		0.048		
91-20-3	Naphthalene	c	HI3	0.029	3.7	0.76	16	0.35	16	200
365†	Nickel compounds, insoluble	f	HI3	0.0038	0.014	0.10	0.062	0.046	0.062	0.20
368†	Nickel compounds, soluble	f	HI3		0.014		0.062		0.062	0.20
7697-37-2	Nitric acid		HI5							86
98-95-3	Nitrobenzene		HI3	0.025	9.0	0.65	40	0.30	40	
79-46-9	2-Nitropropane		HI3		20		88		88	
924-16-3	N-Nitrosodibutylamine			0.00032		0.0084		0.0039		
55-18-5	N-Nitrosodiethylamine	g		5.9E-05		0.00062		0.0012		
62-75-9	N-Nitrosodimethylamine	g		0.00013		0.0013		0.0026		
86-30-6	N-Nitrosodiphenylamine			0.38		10		4.6		
156-10-5	*p*-Nitrosodiphenylamine			0.16		4.1		1.9		
621-64-7	N-Nitrosodipropylamine			0.00050		0.013		0.0060		
10595-95-6	N-Nitrosomethylethylamine			0.00016		0.0041		0.0019		
59-89-2	N-Nitrosomorpholine			0.00053		0.014		0.0063		
100-75-4	N-Nitrosopiperidine			0.00037		0.0096		0.0044		
930-55-2	N-Nitrosopyrrolidine			0.0017		0.043		0.020		
8014-95-7	Oleum (fuming sulfuric acid)		HI3							120
56-38-2	Parathion		HI3							0.020
87-86-5	Pentachlorophenol			0.20		5.1		2.4		
108-95-2	Phenol		HI3		200		880		880	5,800
75-44-5	Phosgene		HI3		0.30		1.3		1.3	4.0
7803-51-2	Phosphine		HI3		0.80		3.5		3.5	
7664-38-2	Phosphoric acid		HI5		10		44		44	
12185-10-3	Phosphorus, white		HI3		9.0		40		40	20

OAR 340-245-8010
Table 2
Risk-Based Concentrations

			Non cancer TBACTRAL [m]	Residential Chronic		Non-Residential Chronic				Acute
				Cancer RBC[a]	Non-cancer RBC[a]	Child Cancer RBC[a]	Child Non-cancer RBC[a]	Worker Cancer RBC[a]	Worker Non-cancer RBC[a]	Non-cancer RBC[a]
CASRN[b]	Chemical	Notes		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
85-44-9	Phthalic anhydride		HI3		20		88		88	
447[†]	Polybrominated diphenyl ethers (PBDEs)	h	HI3							6.0
1336-36-3	Polychlorinated biphenyls (PCBs)	c		0.00053		0.020		0.0092		
645[†]	Polychlorinated biphenyls (PCBs) TEQ	c	HI3	1.0E-09	1.3E-07	9.0E-08	2.6E-05	4.2E-08	2.6E-05	
32598-13-3	PCB 77 [3,3',4,4'-tetrachlorobiphenyl]	c	HI3	1.0E-05	0.0013	0.00090	0.26	0.00042	0.26	
70362-50-4	PCB 81 [3,4,4',5-tetrachlorobiphenyl]	c	HI3	3.4E-06	0.00042	0.00030	0.085	0.00014	0.085	
32598-14-4	PCB 105 [2,3,3',4,4'-pentachlorobiphenyl]	c	HI3	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
74472-37-0	PCB 114 [2,3,4,4',5-pentachlorobiphenyl]	c	HI3	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
31508-00-6	PCB 118 [2,3',4,4',5-pentachlorobiphenyl]	c	HI3	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
65510-44-3	PCB 123 [2,3',4,4',5'-pentachlorobiphenyl]	c	HI3	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
57465-28-8	PCB 126 [3,3',4,4',5-pentachlorobiphenyl]	c	HI3	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
38380-08-4	PCB 156 [2,3,3',4,4',5-hexachlorobiphenyl]	c	HI3	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
69782-90-7	PCB 157 [2,3,3',4,4',5'-hexachlorobiphenyl]	c	HI3	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
52663-72-6	PCB 167 [2,3',4,4',5,5'-hexachlorobiphenyl]	c	HI3	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
32774-16-6	PCB 169 [3,3',4,4',5,5'-hexachlorobiphenyl]	c	HI3	3.4E-08	4.2E-06	3.0E-06	0.00085	1.4E-06	0.00085	
39635-31-9	PCB 189 [2,3,3',4,4',5,5'-heptachlorobiphenyl]	c	HI3	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
646[†]	Polychlorinated dibenzo-*p*-dioxins (PCDDs) & dibenzofurans (PCDFs) TEQ	c	HI3	1.0E-09	1.3E-07	9.0E-08	2.6E-05	4.2E-08	2.6E-05	

OAR 340-245-8010
Table 2
Risk-Based Concentrations

			Non cancer TBACTRAL [m]	Residential Chronic		Non-Residential Chronic				Acute
				Cancer RBC[a]	Non-cancer RBC[a]	Child Cancer RBC[a]	Child Non-cancer RBC[a]	Worker Cancer RBC[a]	Worker Non-cancer RBC[a]	Non-cancer RBC[a]
CASRN[b]	Chemical	Notes		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
1746-01-6	2,3,7,8-Tetrachlorodibenzo-*p*-dioxin (TCDD)	c	HI3	1.0E-09	1.3E-07	9.0E-08	2.6E-05	4.2E-08	2.6E-05	
40321-76-4	1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin (PeCDD)	c	HI3	1.0E-09	1.3E-07	9.0E-08	2.6E-05	4.2E-08	2.6E-05	
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin (HxCDD)	c	HI3	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin (HxCDD)	c	HI3	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin (HxCDD)	c	HI3	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin (HpCDD)	c	HI3	1.0E-07	1.3E-05	9.0E-06	0.0026	4.2E-06	0.0026	
3268-87-9	Octachlorodibenzo-*p*-dioxin (OCDD)	c	HI3	3.4E-06	0.00042	0.00030	0.085	0.00014	0.085	
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran (TCDF)	c	HI3	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	c	HI3	3.4E-08	4.2E-06	3.0E-06	0.00085	1.4E-06	0.00085	
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	c	HI3	3.4E-09	4.2E-07	3.0E-07	8.5E-05	1.4E-07	8.5E-05	
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	c	HI3	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	c	HI3	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	c	HI3	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	

OAR 340-245-8010
Table 2
Risk-Based Concentrations

			Non cancer TBACTRAL [m]	Residential Chronic		Non-Residential Chronic				Acute
				Cancer RBC[a]	Non-cancer RBC[a]	Child Cancer RBC[a]	Child Non-cancer RBC[a]	Worker Cancer RBC[a]	Worker Non-cancer RBC[a]	Non-cancer RBC[a]
CASRN[b]	Chemical	Notes		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	c	HI3	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	c	HI3	1.0E-07	1.3E-05	9.0E-06	0.0026	4.2E-06	0.0026	
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	c	HI3	1.0E-07	1.3E-05	9.0E-06	0.0026	4.2E-06	0.0026	
39001-02-0	Octachlorodibenzofuran (OCDF)	c	HI3	3.4E-06	0.00042	0.00030	0.085	0.00014	0.085	
401†	Polycyclic aromatic hydrocarbons (PAHs)	c, g, n		4.3E-05		0.0016		0.0030		
191-26-4	Anthanthrene	c, g		0.00011		0.0039		0.0076		
56-55-3	Benz[a]anthracene	c, g		0.00021		0.0078		0.015		
50-32-8	Benzo[a]pyrene	c, g	HI3	4.3E-05	0.0020	0.0016	0.0088	0.0030	0.0088	0.0020
205-99-2	Benzo[b]fluoranthene	c, g		5.3E-05		0.0020		0.0038		
205-12-9	Benzo[c]fluorene	c, g		2.1E-06		7.8E-05		0.00015		
191-24-2	Benzo[g,h,i]perylene	c, g		0.0047		0.17		0.34		
205-82-3	Benzo[j]fluoranthene	c, g		0.00014		0.0052		0.010		
207-08-9	Benzo[k]fluoranthene	c, g		0.0014		0.052		0.10		
218-01-9	Chrysene	c, g		0.00043		0.016		0.030		
27208-37-3	Cyclopenta[c,d]pyrene	c, g		0.00011		0.0039		0.0076		
53-70-3	Dibenz[a,h]anthracene	c, g		4.3E-06		0.00016		0.00030		
192-65-4	Dibenzo[a,e]pyrene	c, g		0.00011		0.0039		0.0076		
189-64-0	Dibenzo[a,h]pyrene	c, g		4.7E-05		0.0017		0.0034		
189-55-9	Dibenzo[a,i]pyrene	c, g		7.1E-05		0.0026		0.0051		
191-30-0	Dibenzo[a,l]pyrene	c, g		1.4E-06		5.2E-05		0.00010		
206-44-0	Fluoranthene	c, g		0.00053		0.020		0.038		
193-39-5	Indeno[1,2,3-cd]pyrene	c, g		0.00061		0.022		0.043		

OAR 340-245-8010
Table 2
Risk-Based Concentrations

			Non cancer TBACTRAL [m]	Residential Chronic		Non-Residential Chronic				Acute
				Cancer RBC[a]	Non-cancer RBC[a]	Child Cancer RBC[a]	Child Non-cancer RBC[a]	Worker Cancer RBC[a]	Worker Non-cancer RBC[a]	Non-cancer RBC[a]
CASRN[b]	Chemical	Notes		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
3697-24-3	5-Methylchrysene	c, g		4.3E-05		0.0016		0.0030		
7496-02-8	6-Nitrochrysene	c, g		4.3E-06		0.00016		0.00030		
7758-01-2	Potassium bromate			0.0071		0.19		0.086		
1120-71-4	1,3-Propane sultone			0.0014		0.038		0.017		
123-38-6	Propionaldehyde		HI5		8.0		35		35	
115-07-1	Propylene		HI5		3,000		13,000		13,000	
6423-43-4	Propylene glycol dinitrate		HI5		0.27		1.2		1.2	20
107-98-2	Propylene glycol monomethyl ether		HI3		7,000		31,000		31,000	
75-56-9	Propylene oxide		HI3	0.27	30	7.0	130	3.2	130	3,100
572[†]	Refractory ceramic fibers	i	HI5		0.030		0.13		0.13	
7783-07-5	Selenide, hydrogen		HI3							5.0
7782-49-2	Selenium and compounds	l	HI3							2.0
7631-86-9	Silica, crystalline (respirable)		HI5		3.0		13		13	
1310-73-2	Sodium hydroxide		HI3							8.0
100-42-5	Styrene		HI3		1,000		4,400		4,400	21,000
7664-93-9	Sulfuric acid		HI5		1.0		4.4		4.4	120
505-60-2	Sulfur mustard		HI3							0.70
7446-11-9	Sulfur trioxide		HI5		1.0		4.4		4.4	120
630-20-6	1,1,1,2-Tetrachloroethane			0.14		3.5		1.6		
79-34-5	1,1,2,2-Tetrachloroethane			0.017		0.45		0.21		
127-18-4	Tetrachloroethene (perchloroethylene)		HI3	3.8	41	100	180	46	180	41
811-97-2	1,1,1,2-Tetrafluoroethane		HI3		80,000		350,000		350,000	
62-55-5	Thioacetamide			0.00059		0.015		0.0071		
7550-45-0	Titanium tetrachloride		HI3		0.10		0.44		0.44	10
108-88-3	Toluene		HI3		5,000		22,000		22,000	7,500

OAR 340-245-8010
Table 2
Risk-Based Concentrations

			Non cancer TBACT RAL [m]	Residential Chronic		Non-Residential Chronic				Acute
				Cancer RBC[a]	Non-cancer RBC[a]	Child Cancer RBC[a]	Child Non-cancer RBC[a]	Worker Cancer RBC[a]	Worker Non-cancer RBC[a]	Non-cancer RBC[a]
CASRN[b]	Chemical	Notes		(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)
26471-62-5	Toluene diisocyanates (2,4- and 2,6-)		HI3	0.091	0.021	2.4	0.092	1.1	0.092	0.071
8001-35-2	Toxaphene (polychlorinated camphenes)			0.0031		0.081		0.038		
71-55-6	1,1,1-Trichloroethane (methyl chloroform)		HI3		5,000		22,000		22,000	11,000
79-00-5	1,1,2-Trichloroethane (vinyl trichloride)			0.063		1.6		0.75		
79-01-6	Trichloroethene (TCE, trichloroethylene)	g	HI3	0.20	2.1	3.5	9.2	2.9	9.2	2.1
88-06-2	2,4,6-Trichlorophenol			0.050		1.3		0.60		
96-18-4	1,2,3-Trichloropropane		HI5		0.30		1.3		1.3	1.8
121-44-8	Triethylamine		HI3		200		880		880	2,800
526-73-8	1,2,3-Trimethylbenzene		HI3		60		260		260	
95-63-6	1,2,4-Trimethylbenzene		HI3		60		260		260	
108-67-8	1,3,5-Trimethylbenzene		HI3		60		260		260	
51-79-6	Urethane (ethyl carbamate)	g		0.0020		0.021		0.041		
7440-62-2	Vanadium (fume or dust)		HI3		0.10		0.44		0.44	0.80
1314-62-1	Vanadium pentoxide		HI3	0.00012	0.0070	0.0031	0.031	0.0014	0.031	30
108-05-4	Vinyl acetate		HI3		200		880		880	200
593-60-2	Vinyl bromide		HI5		3.0		13		13	
75-01-4	Vinyl chloride	g, k	HI3	0.11	100	0.22	440	2.7	440	1,300
75-35-4	Vinylidene chloride		HI3		200		880		880	200
1330-20-7	Xylene (mixture), including *m*-xylene, *o*-xylene, *p*-xylene		HI3		220		970		970	8,700

Footnotes for OAR 340-245-8010 Table 2:

† Chemical designated by DEQ ID number.
a) RBC = Risk-Based Concentration
b) CASRN = Chemical Abstracts Service Registry Number, or DEQ ID if there is no CASRN.
c) Chronic RBCs include factors for multipathway risk.

d) The RBCs presented for chromium are applicable to hexavalent chromium. In the absence of data indicating otherwise, assume that any total chromium (i.e., unspeciated) that is measured or modeled is entirely in the hexavalent form. Determine, based on information about the source of emissions, whether hexavalent chromium is emitted in aerosol or particulate form, and apply the corresponding RBC. Because there are no RBCs for trivalent chromium, a source determined to be emitting only trivalent chromium cannot be shown to pose an unacceptable risk, so the risk in this case will be considered acceptable.

e) DDT RBCs apply to the sum of DDT, DDE, and DDD compounds.

f) As recommended by DEQ's Air Toxics Science Advisory Committee (ATSAC) in 2018, the two categories of nickel compounds contain the following specific nickel compounds:
Soluble nickel compounds are considered to be emitted mainly in aerosol form, to be less potent carcinogens than insoluble nickel compounds, and include nickel acetate, nickel chloride, nickel carbonate, nickel hydroxide, nickelocene, nickel sulfate, nickel sulfate hexahydrate, nickel nitrate hexahydrate, nickel carbonate hydroxide.
Insoluble nickel compounds are considered to be emitted mainly in particulate form, to be more potent carcinogens than soluble nickel compounds, and to include nickel subsulfide, nickel oxide, nickel sulfide, nickel metal.

g) RBCs adjusted to protect early-life exposure to infants and children because chemical is carcinogenic by a mutagenic mode of action.

h) RBCs apply to octabrominated diphenyl ethers (CASRN 32536-52-0) and pentabrominated diphenyl ethers (CASRN 32534-81-9), including BDE-99.

i) RBCs for asbestos and refractory ceramic fibers are in units of fibers/cm^3.

j) Chlorinated paraffins of average chain length of C12, approximately 60% chlorine by weight.

k) DEQ followed the ATSAC recommendation to develop a vinyl chloride TRV that already includes early-life exposure.

l) An inorganic chemical designated with "and compounds" indicates that the RBC applies to the sum of all forms of the chemical, expressed as the inorganic element.

m) Noncancer TBACT RAL = noncancer Toxics Best Available Control Technology Risk Action Level, OAR 340-245-8010, Table 1.

n) Because RBCs for PAHs were developed using TRVs for benzo[a]pyrene, apply PAH RBCs to summed benzo[a]pyrene toxicity equivalents for carcinogenic PAHs. If individual PAHs are not evaluated, apply PAH RBCs to total PAH concentrations.

OAR 340-245-8010 Table 3

Level 1 Risk Assessment Dispersion Factors

Table 3A: Stack Emission Dispersion Factors for Annual Exposure ($\mu g/m^3$ / pounds/year)

Stack	Exposure Location Distance (meters)												
Ht (m	50	60	70	80	90	100	110	120	130	140	150	160	170
5	0.0033	0.0026	0.0021	0.0017	0.0014	0.0012	0.0010	0.00088	0.00076	0.00066	0.00058	0.00051	0.00046
10	0.0014	0.0012	0.0011	0.00094	0.00084	0.00075	0.00068	0.00062	0.00057	0.00052	0.00048	0.00044	0.00041
15	0.00075	0.00061	0.00054	0.00049	0.00044	0.00040	0.00037	0.00034	0.00031	0.00029	0.00027	0.00025	0.00024
20	0.00072	0.00054	0.00035	0.00031	0.00028	0.00026	0.00023	0.00022	0.00020	0.00019	0.00017	0.00016	0.00015
25	0.00050	0.00041	0.00035	0.00025	0.00019	0.00018	0.00016	0.00015	0.00014	0.00013	0.00012	0.00012	0.00011
30	0.00037	0.00030	0.00026	0.00023	0.00019	0.00013	0.00012	0.00011	0.00010	0.000096	0.000090	0.000085	0.000080
35	0.00030	0.00023	0.00019	0.00017	0.00015	0.00013	0.00011	0.000081	0.000075	0.000071	0.000068	0.000064	0.000061
40	0.00023	0.00019	0.00015	0.00013	0.00012	0.00011	0.000096	0.000081	0.000064	0.000054	0.000051	0.000049	0.000047
45	0.00018	0.00016	0.00013	0.00011	0.000095	0.000085	0.000078	0.000072	0.000063	0.000053	0.000042	0.000038	0.000037
50	0.00014	0.00013	0.00011	0.000090	0.000077	0.000068	0.000062	0.000057	0.000053	0.000048	0.000042	0.000035	0.000029
Stack	Exposure Location Distance (meters)												
Ht (m	180	190	200	250	300	350	400	450	500	600	700	800	1000
5	0.00041	0.00037	0.00034	0.00023	0.00017	0.00013	0.00010	0.000084	0.000071	0.000052	0.000040	0.000032	0.000022
10	0.00038	0.00035	0.00033	0.00023	0.00017	0.00013	0.000098	0.000078	0.000064	0.000047	0.000036	0.000029	0.000021
15	0.00023	0.00021	0.00020	0.00016	0.00013	0.00010	0.000083	0.000069	0.000057	0.000041	0.000032	0.000025	0.000018
20	0.00014	0.00014	0.00013	0.00010	0.000086	0.000073	0.000062	0.000053	0.000046	0.000035	0.000027	0.000021	0.000015
25	0.00010	0.000096	0.000091	0.000072	0.000059	0.000051	0.000044	0.000039	0.000034	0.000027	0.000022	0.000018	0.000013
30	0.000075	0.000071	0.000068	0.000053	0.000044	0.000037	0.000032	0.000028	0.000025	0.000021	0.000017	0.000014	0.000010
35	0.000058	0.000055	0.000052	0.000042	0.000034	0.000029	0.000025	0.000022	0.000019	0.000016	0.000014	0.000011	0.000008
40	0.000045	0.000043	0.000041	0.000033	0.000028	0.000023	0.000020	0.000018	0.000016	0.000013	0.000011	0.000009	0.000007
45	0.000036	0.000034	0.000033	0.000027	0.000023	0.000019	0.000017	0.000015	0.000013	0.000011	0.000009	0.000008	0.000006
50	0.000027	0.000026	0.000026	0.000022	0.000019	0.000016	0.000014	0.000012	0.000011	0.000009	0.000007	0.000006	0.000005

Table 3B: Stack Emission Dispersion Factors for 24 hour Exposure ($\mu g/m^3$ / pounds/day)

Stack	Exposure Location Distance (meters)												
Ht (m	50	60	70	80	90	100	110	120	130	140	150	160	170
5	8.3	7.1	6.1	5.2	4.4	3.8	3.2	2.7	2.4	2.1	1.8	1.6	1.4
10	3.8	3.4	3.1	2.8	2.6	2.4	2.2	2.1	2.0	1.8	1.7	1.6	1.5
15	1.8	1.6	1.6	1.5	1.4	1.3	1.2	1.1	1.1	1.00	0.95	0.91	0.87
20	1.6	1.3	0.91	0.86	0.82	0.77	0.73	0.69	0.65	0.62	0.59	0.56	0.54
25	0.97	0.93	0.85	0.64	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.38	0.36
30	0.62	0.59	0.57	0.55	0.49	0.34	0.32	0.31	0.30	0.29	0.28	0.27	0.26
35	0.42	0.41	0.39	0.38	0.37	0.34	0.29	0.22	0.21	0.21	0.20	0.20	0.19
40	0.30	0.29	0.28	0.28	0.27	0.26	0.25	0.22	0.17	0.15	0.15	0.15	0.14
45	0.22	0.22	0.21	0.21	0.20	0.20	0.19	0.19	0.17	0.16	0.12	0.11	0.11
50	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.14	0.14	0.13	0.12	0.10	0.082
Stack	Exposure Location Distance (meters)												
Ht (m	180	190	200	250	300	350	400	450	500	600	700	800	1000
5	1.3	1.2	1.1	0.72	0.55	0.44	0.36	0.30	0.26	0.20	0.16	0.13	0.092
10	1.4	1.3	1.3	0.91	0.67	0.50	0.38	0.30	0.25	0.18	0.14	0.12	0.088
15	0.83	0.80	0.77	0.64	0.53	0.43	0.36	0.30	0.25	0.18	0.13	0.10	0.075
20	0.52	0.49	0.48	0.40	0.35	0.31	0.27	0.23	0.20	0.16	0.12	0.096	0.064
25	0.35	0.34	0.32	0.27	0.23	0.21	0.19	0.17	0.15	0.12	0.100	0.082	0.057
30	0.25	0.24	0.23	0.19	0.17	0.15	0.13	0.12	0.11	0.095	0.078	0.066	0.048
35	0.18	0.18	0.17	0.15	0.13	0.11	0.099	0.090	0.083	0.072	0.062	0.053	0.040
40	0.14	0.14	0.13	0.11	0.10	0.088	0.078	0.070	0.064	0.056	0.049	0.044	0.033
45	0.11	0.11	0.10	0.092	0.081	0.072	0.065	0.058	0.053	0.045	0.040	0.036	0.028
50	0.081	0.080	0.079	0.072	0.065	0.059	0.053	0.048	0.044	0.037	0.032	0.029	0.024

Use of stack emission dispersion factors in a Level 1 screening risk assessment:

For each Toxics Emissions Unit, select the appropriate stack height and distance from the stack to nearest exposure locations approved by DEQ. For each exposure location, find the corresponding annual dispersion factor in Table 3A. For each toxic air contaminant, multiply the annual toxic air contaminant emission rate (in pounds/year) by the dispersion factor. Divide the product by the RBC for all the toxic air contaminants for the appropriate exposure location in OAR 340-245-8010 Table 2. Add up the resulting ratios for all Toxic Emissions Units for each exposure location. Compare the results with the Risk Action Levels in OAR 340-245-8010 Table 1. Repeat the process for daily emission rates (in pounds/day) using Table 3B at the acute exposure location.
For a stack height between the values shown in the table, either use the next lowest stack height, or interpolate the dispersion factor. For an exposure location distance between the values shown in the table, either use the next lowest distance, or interpolate the dispersion factor. For stack heights greater than 50 meters, use the appropriate dispersion factor for 50 meters. For exposure locations greater than 1,000 meters from the stack, use the appropriate dispersion factor at 1,000 meters. In the absence of a known stack height and exposure location distance, use as a default the annual dispersion factor (0.0033 $\mu g/m^3$ / pounds/year) and daily dispersion factor (8.3 $\mu g/m^3$ / pounds/day) for a stack height of 5 meters and an exposure location distance of 50 meters.
A Level 1 Risk Assessment will not be approved if the source is located near elevated terrain that DEQ determines could invalidate the assumptions used to develop the Level 1 Risk Assessment tool.

Stat. Auth.: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155
Stats. Implemented: ORS 468.065, 468A.010, 468A.015, 468A.025, 468A.035, 468A.040, 468A.050, 468A.070, and 468A.155

OAR 340-245-8010 Table 3

Level 1 Risk Assessment Dispersion Factors

Table 3C: Fugitive Emission Dispersion Factors for Annual Exposure ($\mu g/m^3$ / pounds/year)

Building Area	Building	Exposure Location Distance (meters)												
(1,000 ft2)	Height (ft)	50	60	70	80	90	100	110	120	130	140	150	160	170
≤3	≤20	0.0045	0.0033	0.0026	0.0020	0.0017	0.0014	0.0012	0.0010	0.00089	0.00078	0.00069	0.00062	0.00056
>3 to 6	≤20	0.0044	0.0032	0.0025	0.0020	0.0016	0.0014	0.0012	0.0010	0.00088	0.00077	0.00069	0.00061	0.00055
>3 to 6	>20	0.0041	0.0031	0.0024	0.0019	0.0016	0.0013	0.0011	0.0010	0.00086	0.00076	0.00067	0.00060	0.00054
>6 to 10	≤20	0.0044	0.0033	0.0025	0.0020	0.0017	0.0014	0.0012	0.0010	0.00088	0.00077	0.00069	0.00062	0.00055
>6 to 10	>20	0.0037	0.0028	0.0022	0.0018	0.0015	0.0013	0.0011	0.0010	0.00083	0.00074	0.00066	0.00059	0.00053
>10 to 15	≤20	0.0044	0.0033	0.0025	0.0020	0.0017	0.0014	0.0012	0.0010	0.00088	0.00077	0.00069	0.00062	0.00055
>10 to 15	>20	0.0034	0.0027	0.0021	0.0018	0.0015	0.0012	0.0011	0.00093	0.00081	0.00072	0.00064	0.00058	0.00052
>15 to 30	≤20	0.0043	0.0032	0.0025	0.0020	0.0016	0.0014	0.0012	0.0010	0.00088	0.00077	0.00069	0.00061	0.00055
>15 to 30	>20	0.0034	0.0027	0.0021	0.0018	0.0015	0.0012	0.0011	0.00093	0.00082	0.00072	0.00065	0.00058	0.00052
>30	>20	0.0022	0.0018	0.0015	0.0013	0.0011	0.0010	0.00086	0.00076	0.00068	0.00061	0.00055	0.00050	0.00046
Building Area	Building	Exposure Location Distance (meters)												
(1,000 ft2)	Height (ft)	180	190	200	250	300	350	400	450	500	600	700	800	1000
≤3	≤20	0.00050	0.00046	0.00042	0.00029	0.00021	0.00016	0.00013	0.00010	0.000087	0.000064	0.000049	0.000039	0.000027
>3 to 6	≤20	0.00050	0.00046	0.00042	0.00028	0.00021	0.00016	0.00013	0.00010	0.000087	0.000064	0.000049	0.000039	0.000027
>3 to 6	>20	0.00049	0.00045	0.00041	0.00028	0.00021	0.00016	0.00013	0.00010	0.000087	0.000064	0.000049	0.000039	0.000027
>6 to 10	≤20	0.00050	0.00046	0.00042	0.00028	0.00021	0.00016	0.00013	0.00010	0.000087	0.000064	0.000049	0.000039	0.000027
>6 to 10	>20	0.00048	0.00044	0.00041	0.00028	0.00020	0.00016	0.00013	0.00010	0.000086	0.000064	0.000049	0.000039	0.000027
>10 to 15	≤20	0.00050	0.00046	0.00042	0.00028	0.00021	0.00016	0.00013	0.00010	0.000087	0.000064	0.000049	0.000039	0.000027
>10 to 15	>20	0.00048	0.00044	0.00040	0.00028	0.00020	0.00016	0.00012	0.00010	0.000086	0.000063	0.000049	0.000039	0.000027
>15 to 30	≤20	0.00050	0.00046	0.00042	0.00028	0.00021	0.00016	0.00013	0.00010	0.000087	0.000064	0.000049	0.000039	0.000027
>15 to 30	>20	0.00048	0.00044	0.00040	0.00028	0.00020	0.00016	0.00013	0.00010	0.000086	0.000063	0.000049	0.000039	0.000027
>30	>20	0.00042	0.00039	0.00036	0.00025	0.00019	0.00015	0.00012	0.00010	0.000083	0.000061	0.000048	0.000038	0.000027

Table 3D: Fugitive Emission Dispersion Factors for 24 hour Exposure ($\mu g/m^3$ / pounds/day)

Building Area	Building	Exposure Location Distance (meters)												
(1,000 ft2)	Height (ft)	50	60	70	80	90	100	110	120	130	140	150	160	170
≤3	≤20	4.8	3.7	2.9	2.4	2.0	1.7	1.4	1.2	1.1	0.97	0.87	0.78	0.71
>3 to 6	≤20	4.1	3.1	2.5	2.0	1.7	1.4	1.2	1.1	0.95	0.84	0.76	0.68	0.62
>3 to 6	>20	3.5	2.8	2.2	1.9	1.6	1.3	1.2	1.0	0.90	0.80	0.72	0.65	0.59
>6 to 10	≤20	4.0	3.1	2.5	2.0	1.7	1.4	1.2	1.1	0.94	0.84	0.75	0.68	0.62
>6 to 10	>20	3.3	2.6	2.1	1.8	1.5	1.3	1.1	0.97	0.86	0.77	0.69	0.63	0.57
>10 to 15	≤20	4.0	3.1	2.4	2.0	1.7	1.4	1.2	1.1	0.94	0.84	0.75	0.68	0.62
>10 to 15	>20	2.9	2.4	2.0	1.6	1.4	1.2	1.1	0.93	0.83	0.74	0.67	0.61	0.56
>15 to 30	≤20	3.7	2.9	2.3	1.9	1.6	1.4	1.2	1.0	0.92	0.82	0.74	0.67	0.61
>15 to 30	>20	2.9	2.3	1.9	1.6	1.4	1.2	1.0	0.92	0.82	0.74	0.67	0.60	0.55
>30	>20	1.8	1.5	1.3	1.2	1.0	0.92	0.82	0.73	0.66	0.60	0.55	0.51	0.47
Building Area	Building	Exposure Location Distance (meters)												
(1,000 ft2)	Height (ft)	180	190	200	250	300	350	400	450	500	600	700	800	1000
≤3	≤20	0.65	0.59	0.55	0.38	0.29	0.22	0.18	0.15	0.13	0.095	0.074	0.060	0.043
>3 to 6	≤20	0.57	0.52	0.48	0.33	0.25	0.20	0.16	0.13	0.11	0.083	0.065	0.053	0.038
>3 to 6	>20	0.54	0.50	0.46	0.32	0.24	0.19	0.15	0.13	0.11	0.081	0.064	0.052	0.037
>6 to 10	≤20	0.56	0.52	0.48	0.33	0.25	0.20	0.16	0.13	0.11	0.083	0.065	0.053	0.038
>6 to 10	>20	0.53	0.48	0.45	0.31	0.24	0.19	0.15	0.12	0.11	0.080	0.063	0.051	0.036
>10 to 15	≤20	0.56	0.52	0.48	0.33	0.25	0.19	0.16	0.13	0.11	0.083	0.065	0.053	0.038
>10 to 15	>20	0.51	0.47	0.43	0.31	0.23	0.18	0.15	0.12	0.10	0.078	0.062	0.050	0.035
>15 to 30	≤20	0.55	0.51	0.47	0.33	0.25	0.19	0.16	0.13	0.11	0.083	0.065	0.053	0.037
>15 to 30	>20	0.51	0.47	0.43	0.31	0.23	0.18	0.15	0.12	0.10	0.078	0.062	0.050	0.035
>30	>20	0.43	0.40	0.37	0.27	0.21	0.17	0.14	0.12	0.098	0.075	0.059	0.048	0.034

Use of fugitive emission dispersion factors in a Level 1 screening risk assessment:

For each Toxics Emissions Unit, select the appropriate building dimensions and distance from building to nearest exposure locations approved by DEQ. For each exposure location, find the corresponding annual dispersion factor in Table 3C. For each toxic air contaminant, multiply the annual toxic air contaminant emission rate (in pounds/year) by the dispersion factor. Divide the product by the RBC for all the toxic air contaminants for the appropriate exposure location in OAR 340-245-8010 Table 2. Add up the resulting ratios for all Toxic Emissions Units for each exposure location. Compare the results with the Risk Action Levels in OAR 340-245-8010 Table 1. Repeat the process for daily emission rates (in pounds/day) using Table 3D at the acute exposure location.

For an exposure location distance between the values shown in the table, either use the next lowest distance, or interpolate the dispersion factor. For exposure locations greater than 1,000 meters from the building, use the appropriate dispersion factor at 1,000 meters. In the absence of known building dimensions and exposure location distance, use as a default, the annual dispersion factor (0.0045 $\mu g/m^3$ / pounds/year) and daily dispersion factor (4.8 $\mu g/m^3$ / pounds/day) for a building area of ≤3,000 ft2, height of ≤20 ft, and exposure location distance of 50 meters.

A Level 1 Risk Assessment will not be approved if the source is located near elevated terrain that DEQ determines could invalidate the assumptions used to develop the Level 1 Risk Assessment Dispersion Factors.

Stat. Auth.: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155
Stats. Implemented: ORS 468.065, 468A.010, 468A.015, 468A.025, 468A.035, 468A.040, 468A.050, 468A.070, and 468A.155

REPEAL: 340-245-8020

RULE TITLE: Table 2 - Toxic Air Contaminant Reporting List

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Moving table to 340-247-8010.

RULE TEXT:

Table 2 - Toxic Air Contaminant Reporting List

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035

REPEAL: 340-245-8030

RULE TITLE: Table 3 - Toxicity Reference Values

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Moving table to 340-247-8010.

RULE TEXT:

Table 3 - Toxicity Reference Values

STATUTORY/OTHER AUTHORITY: ORS 468.020, ORS 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, Or Laws 2018, ch. 102, § 7

STATUTES/OTHER IMPLEMENTED: ORS 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, Or Laws 2018, ch. 102, § 7

REPEAL: 340-245-8040

RULE TITLE: Table 4 - Risk-Based Concentrations

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Moving table to 340-245-8010.

RULE TEXT:
Table 4 - Risk-Based Concentrations

STATUTORY/OTHER AUTHORITY: ORS 468.020, ORS 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, Or Laws 2018, ch. 102, § 7

STATUTES/OTHER IMPLEMENTED: ORS 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035, Or Laws 2018, ch. 102, § 7

REPEAL: 340-245-8050

RULE TITLE: Table 5 - Level 1 Risk Assessment Tool Dispersion Factors

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Moving table to 340-245-8010.

RULE TEXT:

Table 5 - Level 1 Risk Assessment Tool Dispersion Factors

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155

STATUTES/OTHER IMPLEMENTED: 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155, 468A.010, 468A.015, 468A.035

AMEND: 340-246-0010

RULE TITLE: Policy and Purpose

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Updating policy and purpose statement and statutory authority.

RULE TEXT:

The purpose of Oregon's state Toxic Air Contaminant Program is to address threats to public health and the environment from toxic air pollutants that remain after implementing the state delegated technology-based strategies of the federal Hazardous Air Pollutants Program in OAR 340-244-0010 through 340-244-0252, Cleaner Air Oregon in OAR 340-245-0005 through 340-245-8050, and OAR 340-244-9000 through 340-244-9090. It also addresses cases of elevated health risks from toxic air contaminant emissions at stationary sources and source categories of toxic air contaminant emissions. In the future, it is also intended to address human exposures to toxic air contaminant emissions from stationary sources that are not addressed by other regulatory programs or the Geographic Program through a Safety Net Program. It is expected that the Safety Net Program will apply only rarely.

STATUTORY/OTHER AUTHORITY: 468A.015, ORS 468A.135, 468.020, 468.035, 468A.025

STATUTES/OTHER IMPLEMENTED: 468A.010(1), ORS 468A.015, 468A.025, ORS 468A.135, 468.035

AMEND: 340-246-0030

RULE TITLE: Definitions

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Removing definitions for "Air Toxics", "Bio accumulation" and "Toxics Best Available Retrofit Technology"

RULE TEXT:

The definitions in OAR 340-200-0020, 340-218-0030, 340-244-0030, OAR 340-247-0020 and this rule apply to this division. If the same term is defined in this division and elsewhere, the definition in this division applies.

(1) "Ambient benchmark concentration" means the concentration of a toxic air contaminant in outdoor air that would result in an excess lifetime cancer risk level of one in a million (1 x 10-6) or a non-cancer hazard quotient of one and is numerically equivalent to the “Toxicity Reference Value” as defined under OAR 340 247-0020.

(2) "Geographic area" means an area identified by DEQ where toxic air contaminant concentrations are estimated or measured at levels that exceed ambient benchmark concentrations.

(3) "Hazard quotient" means the ratio of the potential exposure to a single toxic air contaminant to the reference concentration for that pollutant. If the hazard quotient is calculated to be less than or equal to 1, then no adverse health effects are expected as a result of exposure. If the hazard quotient is greater than 1, then adverse health effects are possible.

(4) "High priority geographic area" means an area identified by DEQ where toxic air contaminant concentrations are estimated or measured at levels that exceed ambient benchmark concentrations and pose excess cancer risk above ten in a million, or non-cancer risk above a hazard quotient of one with the potential for serious adverse health effects.

(5) "Public receptor" means any outdoor area where members of the public have unrestricted access, including but not limited to residences, institutions (e.g. schools, hospitals), industrial, commercial, or office buildings, parks, recreational areas, public lands, streets or sidewalks.

(6) "Reference concentration" means an estimate of a continuous exposure or a daily exposure to the human population (including sensitive populations) that is likely to be without an appreciable risk of adverse non-cancer effects during a lifetime. The reference concentration can be derived from various types of human or animal data, with uncertainty factors generally applied to reflect limitations of the data used.

(7) "Sensitive human populations" means humans with increased susceptibility to the adverse effects of toxic air contaminants, including humans in prenatal or postnatal periods of development.

(8) "Source" means:

(a) An activity conducted by a person at a point, area, on-road mobile, or off-road mobile operation that emits toxic air contaminants; or

(b) Any building, structure, facility, installation or combination thereof that emits or is capable of emitting air contaminants to the atmosphere, is located on one or more contiguous or adjacent properties and is owned or operated by the same person or by persons under common control. The term includes all pollutant emitting activities that belong to a single major industrial group (i.e., that have the same two-digit code) as described in the Standard Industrial Classification Manual, (U.S. Office of Management and Budget, 1987) or that support the major industrial group.

(9) "Source Category" means:

(a) A source or group of sources that emit toxic air contaminants due to the use of the same or similar processes, including commercial, residential, public or private processes, which as a group can reduce toxic air contaminant emissions by employing similar control or prevention strategies or;

(b) All the pollutant emitting activities that belong to the same industrial grouping (i.e., that have the same two-digit code) as described in the Standard Industrial Classification Manual, (U.S. Office of Management and Budget, 1987).

[Publications: Publications referenced are available from the agency.]

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468.035, 468A.010(1), 468A.015, 468A.025, 468A.135

STATUTES/OTHER IMPLEMENTED: ORS 468.035, 468A.010(1), 468A.015, 468A.025, 468A.135

AMEND: 340-246-0050

RULE TITLE: Pollution Prevention

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Changing "air toxics" to "toxic air contaminants" and updating statutory authority.

RULE TEXT:

The Environmental Quality Commission encourages the use of pollution prevention for all sources of toxic air contaminants statewide. The Commission encourages use of the following hierarchy to reduce toxic air contaminants:

(1) Modify the process, raw materials, or product to reduce the quantity and toxicity of air contaminants generated;

(2) Capture and reuse air contaminants;

(3) Treat to reduce the quantity and toxicity of air contaminants released; or

(4) Otherwise control toxic air contaminant emissions.

STATUTORY/OTHER AUTHORITY: ORS 468.035, 468A.010(1), 468A.015, 468A.135, 468A.025, 468.020

STATUTES/OTHER IMPLEMENTED: ORS 468.035, 468A.010(1), 468A.015, 468A.135, 468A.025

REPEAL: 340-246-0070

RULE TITLE: Air Toxics Science Advisory Committee

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: This rule is being moved and amended under 340-247-0050

RULE TEXT:

(1) Purpose. The Commission recognizes the many scientific uncertainties associated with the effects of air toxics, and the continuing development of new information in this field. An Air Toxics Science Advisory Committee (ATSAC), will advise DEQ, and in its jurisdiction, the Lane Regional Air Pollution Authority, on technical issues and evaluation of the state air toxics program. The ATSAC will provide advice on the technical aspects of risk assessment. It will not provide risk management or policy recommendations. The ATSAC will perform the following functions:

(a) Review ambient benchmarks for the state air toxics program;

(b) Advise DEQ on developing a risk assessment methodology to be used in the Safety Net Program in OAR 340-246-0190 (5) and (6);

(c) Advise DEQ on selecting sources for the Safety Net program. The ATSAC will evaluate potential Safety Net sources identified by DEQ to determine whether they qualify for the Safety Net Program, as specified in OAR 340-246-0190 through 0230;

(d) Evaluate overall progress in reducing emissions of and exposure to air toxics by considering trends in emissions and ambient concentrations of air toxics. The ATSAC will periodically advise DEQ on air toxics program effectiveness and make technical recommendations for program development concerning the possible adverse environmental effects of air toxics and risk from exposure to multiple air toxics; and

(e) Provide advisory opinions on questions requiring scientific expertise, as requested by DEQ.

(2) Membership. The ATSAC will be composed of highly qualified members with experience relevant to air toxics. There will be at least five but no more than seven members. The following disciplines will be represented on the ATSAC:

(a) Toxicology;

(b) Environmental Science or Environmental Engineering;

(c) Risk Assessment;

(d) Epidemiology/Biostatistics;

(e) Medicine (Physician) with training or experience in Public Health; and

(f) Air Pollution Modeling, Monitoring, Meteorology or Engineering.

(3) Appointment. DEQ's Air Quality Division Administrator will nominate potential members to the Director. Before making these nominations, the Administrator will develop a list of candidates by consulting with government, public, and private organizations involved in work relevant to air toxics. The Director will appoint ATSAC members with concurrence by the Commission.

(4) Term. Air Toxics Science Advisory Committee members will serve a three-year term. Initial terms will be staggered for continuity and transfer of work so that members of the first ATSAC may serve more or less than three years.

(5) Operation.

(a) No member may have an actual or potential conflict of interest, as those terms are defined by ORS 244.020.

(b) The ATSAC will meet as necessary.

(6) Procedures, Bylaws, and Decision-making Process. At a minimum, the ATSAC will observe the procedures specified below. The ATSAC will develop other necessary procedures and bylaws in consultation with DEQ.

(a) Final decisions must be made by a quorum of members, based on consensus when possible. If consensus is not possible, decisions will be made by majority vote with a quorum present.

(b) If necessary, DEQ may obtain a facilitator to assist the ATSAC.

(c) The bylaws will include provisions for removing a member for cause, with concurrence by the Commission.

STATUTORY/OTHER AUTHORITY: ORS 468.035, 468A.010(1), 468A.015

STATUTES/OTHER IMPLEMENTED: ORS 468A.015, 468A.025

AMEND: 340-246-0090

RULE TITLE: Ambient Benchmark Concentrations for Toxic Air Contaminants

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Removing ambient benchmark criteria from this rule and referencing 340-247-0020. Updating statutory authority.

RULE TEXT:

Purpose. Ambient benchmark concentrations are concentrations of toxic air contaminants that serve as goals in the Oregon Toxic Air Contaminants Program. They are based on human health risk and hazard levels considering sensitive populations. Ambient benchmark concentrations are not regulatory standards, but reference values by which toxic air contaminant problems can be identified, addressed and evaluated and are numerically equivalent to the “Toxicity Reference Value” as defined under OAR 340 247-0020. DEQ will use ambient benchmark concentrations as indicated in these rules, to implement the Geographic and Source Category Programs. Ambient benchmark concentrations set by the procedures described in this rule apply throughout Oregon, including that area within the jurisdiction of the Lane Regional Air Protection Agency.

STATUTORY/OTHER AUTHORITY: ORS 468.035, 468A.010(1), 468A.015, 468A.135, 468A.025, 468.020

STATUTES/OTHER IMPLEMENTED: ORS 468.035, 468A.010(1), 468A.015, 468A.135, 468A.025

AMEND: 340-246-0110

RULE TITLE: Source Category Rules and Strategies

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Removing references to safety net program and changing "air toxics" to "toxic air contaminants". Updating statutory authority.

RULE TEXT:

(1) DEQ may identify the need for source category rules and strategies through the following methods:

(a) The emissions inventory, modeling or monitoring, shows toxic air contaminant emissions from point, area, or mobile sources associated with public health risk at public receptors;

(b) Development of a local toxic air contaminant reduction plan provides source category controls that could be effectively applied to sources existing in other parts of the state; or

(2) Subject to the requirements in this rule, the Lane Regional Air Pollution Authority is designated by the Commission as the agency responsible for implementing Source Category Rules and Strategies within its area of jurisdiction. The requirements and procedures contained in this rule must be used by the Regional Authority to implement Source Category Rules and Strategies unless the Regional Authority adopts superseding rules that are at least as restrictive as the rules adopted by the Commission.

(3) DEQ will consider the following criteria in determining whether to propose source category strategies under this division:

(a) Whether toxic air contaminant emissions from the source category are not, or will not, be addressed by other regulations or strategies, including emissions reduction requirements under the Geographic Program (OAR 340-246-0130 through 340-246-0170);

(b) Whether toxic air contaminant emissions from the source category can be effectively reduced through regulations or voluntary strategies; and

(c) Whether the source category contributes to ambient benchmark concentration exceedances at public receptors statewide, in multiple geographic areas, or in multiple counties.

STATUTORY/OTHER AUTHORITY: ORS 468.035, 468A.010(1), 468A.015, 468A.135, 468A.025, 468.020

STATUTES/OTHER IMPLEMENTED: ORS 468.035, 468A.010(1), 468A.015, 468A.135, 468A.025

AMEND: 340-246-0130

RULE TITLE: Geographic Program (0130 through 0170)

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Changing "air toxics" to "toxic air contaminants" and updating statutory authority.

RULE TEXT:

(1) Purpose. The Geographic Program addresses emissions from multiple sources of toxic air contaminants. It requires prioritizing and selecting geographic areas of concern, forming a local advisory committee, developing a specific local plan to control toxic air contaminants, a public participation and comment process, EQC adoption or approval, implementing reduction strategies, and periodically evaluating the effectiveness by DEQ.

(2) Subject to the requirements in OAR 340-246-0130 through 0170, the Lane Regional Air Pollution Authority is designated by the Commission as the agency to implement the Geographic Program within its area of jurisdiction. The requirements and procedures contained in this rule must be used by the Regional Authority to implement the Geographic Program unless the Regional Authority adopts superseding rules which are at least as restrictive as state rules. The Regional Authority will address geographic areas as resources allow, considering the prioritization criteria in 340-246-0150.

STATUTORY/OTHER AUTHORITY: ORS 468.035, 468A.010(1), 468A.015, 468A.135, 468A.025, ORS 468.020

STATUTES/OTHER IMPLEMENTED: ORS 468.035, 468A.010(1), 468A.015, 468A.135, 468A.025

AMEND: 340-246-0150

RULE TITLE: Prioritizing and Selecting Geographic Areas

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Changing "air toxics" to "toxic air contaminants" and "ambient benchmarks" to "ambient benchmark concentrations". Updating statutory authority.

RULE TEXT:
(1) DEQ will prioritize geographic areas by considering the total cancer and non-cancer risk from toxic air contaminants to the population in the area, as indicated by:
(a) The number and degree of ambient benchmark concentration exceedances;
(b) The toxicity or potency of toxic air contaminants exceeding ambient benchmark concentrations;
(c) The level of exposure and number of people at risk in areas of concern;
(d) The presence of sensitive populations;
(e) The effectiveness of local control strategies; and
(f) To the extent known, the risk posed by multiple pollutants and pollutant mixtures.
(2) Not later than 18 months after the first set of benchmarks is adopted, DEQ will select the first geographic area for toxic air contaminants reduction planning. DEQ will base selection on representative monitoring compared to the ambient benchmark concentrations at public receptors. To the extent possible, geographic areas will be identified using monitoring data generated following EPA monitoring guidelines. Subsequent geographic areas will be selected after completion of monitoring. A geographic area is formally selected upon publication of a notice in the Oregon Secretary of State's Bulletin. Once an area is selected for toxic air contaminants reduction planning, it will retain the status of a selected geographic area until DEQ determines through an evaluation of data that a reduction plan is no longer necessary for the area to meet all toxic air contaminant ambient benchmark concentrations.
(3) DEQ will first select for emissions reduction planning the high priority geographic areas, where concentrations of toxic air contaminants are more than ten times above the ambient benchmark concentrations or above a hazard quotient of one with the potential for serious adverse health effects. DEQ will select all other geographic areas, where toxic air contaminant concentrations are above benchmarks, after toxic air contaminant emissions reduction plans have been approved for the high priority geographic areas.
(4) Geographic Area Boundaries. DEQ will establish general geographic area boundaries on a neighborhood or urban area scale. DEQ will consider feasibility of administration when setting the boundaries of a geographic area. In setting geographic area boundaries, DEQ will consider criteria including but not limited to the following:
(a) Areas of impact (where people are exposed);
(b) Population density;
(c) Areas of influence (where sources are located);
(d) Meteorology;
(e) Geography and topography;
(f) Including all toxic air contaminants exceeding ambient benchmark concentrations; and
(g) Coordination with criteria pollutant boundaries for attainment of the National Ambient Air Quality Standards (NAAQS).
[NOTE: Publications referenced are available from the agency.]

STATUTORY/OTHER AUTHORITY: ORS 468.035, 468A.010(1), 468A.015, ORS 468.020, 468A.025, 468A.135

STATUTES/OTHER IMPLEMENTED: ORS 468.035, 468A.010(1), 468A.015, 468A.025, 468A.135

AMEND: 340-246-0170

RULE TITLE: Local Toxic Air Contaminant Emissions Reduction Planning

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Changing "air toxics" to "toxic air contaminants" and "ambient benchmarks" to "ambient benchmark concentrations". Updating statutory authority.

RULE TEXT:

(1)(a) DEQ will develop toxic air contaminant reduction plans for selected geographic areas with the advice of local advisory committees. The main role of a local advisory committee is to consider toxic air contaminant reduction options and to recommend a specific toxic air contaminant reduction plan for their geographic area. The Director will appoint a local toxic air contaminants advisory committee.

(b) Local advisory committees will generally be composed of a balanced representation of members from affected local government, local health departments, the public, small businesses (50 or fewer employees), larger businesses (if present in the area), and interest groups represented in the area.

(2) Local Advisory Committee Tasks.

(a) Within 18 months of their first meeting, the committee will evaluate options for reducing emissions of toxic air contaminants that exceed ambient benchmark concentrations, and recommend a local toxic air contaminant reduction plan to DEQ.

(b) DEQ may grant an extension of time to the local committee if requested by the committee, if DEQ believes the extension is technically justified and the committee is making reasonable progress in developing a local toxic air contaminant reduction plan.

(c) If the committee is unable to recommend a local toxic air contaminant reduction plan to DEQ within 18 months, or the date of an extension, DEQ will formulate a plan for the area within six months.

(d) DEQ and the local advisory committee will seek local government support for the proposed local toxic air contaminant emissions reduction plan.

(e) The local advisory committee will evaluate the plan's effectiveness as it is implemented and recommend changes to DEQ.

(f) At DEQ's request, the local advisory committee will reconvene to implement contingency planning and recommend contingency measures as specified by OAR 340-246-0170(4)(l).

(g) If the committee is unable to recommend contingency measures within 18 months, DEQ will formulate contingency measures for the area within 6 months.

(3) Public Notice, Comment, Approval and Adoption by the Environmental Quality Commission. DEQ will provide an opportunity for public notice and comment on proposed local emissions reduction plans. After the public notice and comment process is complete, DEQ will present local toxic air contaminant reduction plans to the Commission for approval, including adoption of appropriate administrative rules. The Environmental Quality Commission may delegate the approval of plans that do not contain administrative rules to the Director of DEQ.

(4) Elements of a Toxic Air Contaminant Reduction Plan:

(a) Local toxic air contaminant reduction plans must focus on the toxic air contaminant or toxic air contaminants measured or modeled above the ambient benchmark concentrations.

(b) Local toxic air contaminant reduction plans must be based on sound data analysis. This includes developing enhanced emissions inventory information for the local area using source-specific information to the extent possible. This may also include enhanced modeling and monitoring to better characterize ambient concentrations. Plans also must rely on sound analysis of the effectiveness and cost of toxic air contaminant emissions reduction options. Where needed to fill specific information gaps, DEQ may require toxic air contaminant emissions reporting for specific sources or source categories within the geographic area on a case-by-case basis.

(c) The emissions reduction goals for individual toxic air contaminants are ambient benchmark concentrations in local toxic air contaminant reduction plans.

(d) Local toxic air contaminant reduction plans must be designed to reduce toxic air contaminant emissions in a timely manner.
(A) When feasible, local toxic air contaminant reduction plans will be designed to reach levels that are equal to or below ambient benchmark concentrations. Plans will be designed to achieve emissions reductions within ten years, beginning at the date the Commission approves the plan. Local plans must provide for the timeliest reductions possible for each toxic air contaminant exceeding ambient benchmark concentrations.
(B) Local toxic air contaminant reduction plans must include specific three-year milestones that DEQ and the local advisory committee will evaluate every three years, in coordination with DEQ's toxic air contaminant emissions inventory update.
(e) Every three years, DEQ will assess the effectiveness of local plans and make recommendations for plan revision based on progress meeting milestones or new information. If DEQ finds lack of progress at year three, it will work with the local advisory committee to provide corrective measures. If DEQ finds lack of progress at year six and projects that ten-year goals in OAR 340-246-0170(4)(d)(A) will not be met, it will implement the contingency plan in 340-246-0170(4)(l). If at year nine DEQ projects that ten year goals in 340-246-0170(4)(d)(A) will not be met, it will work with the local advisory committee to propose and seek adoption of measures necessary to reach these goals.
(f) Local toxic air contaminant reduction plans must evaluate toxic air contaminant emissions from all types of sources, including point, area, and mobile sources. Plans must require emissions reductions from the most significant sources of toxic air contaminants. Mandatory emissions reduction strategies will be commensurate with source contributions, considering relative emissions, toxicity, technical feasibility, cost-effectiveness and equity.
(g) Local toxic air contaminant reduction plans must include strategies to reduce high concentrations of toxic air contaminants that are limited to smaller portions of a geographic area as well as pollutants causing public health risk throughout the area.
(h) Local toxic air contaminant reduction plans may include a variety of mandatory and voluntary approaches to reducing emissions of toxic air contaminants. Depending on the type of source, local toxic air contaminant reduction plans may include public education, pollution prevention alternatives, economic incentives and disincentives, technical assistance and regulatory requirements.
(i) DEQ will ensure the opportunity for public involvement during the plan development process. This includes involving those affected by the toxic air contaminant emissions and those affected by the proposals to reduce toxic air contaminant emissions. Proposed local toxic air contaminant reduction plans must be available for public hearing and comment.
(j) Local toxic air contaminant reduction plans must be coordinated with other local, state, and federal requirements to the extent possible. This includes considerations of any ozone or particulate control requirements for the area, any federal standard applicable to sources in the area, any strategies that are federally pre-empted, and any impacts on water or land, such as water pollution or hazardous waste.
(k) Local toxic air contaminant reduction plans will include specific recommendations for developing ongoing emissions inventory or ambient air monitoring to track local trends in toxic air contaminants.
(l) Local toxic air contaminant reduction plans must include a contingency plan that will be implemented if evaluation at year six shows that an area is not meeting milestones and will not achieve the ten year goals established under OAR 340-246-0170(4)(d)(A). The contingency plan, like the original plan, must require emissions reductions from the most significant sources of toxic air contaminants. Mandatory emissions reduction strategies will be commensurate with source contributions, considering relative emissions, toxicity, technical feasibility cost-effectiveness and equity. Contingency plans must include but are not limited to:
(A) Re-evaluation of planning assumptions, such as emissions factors, motor vehicle data and background pollutants;
(B) Evaluation of existing conditions and effectiveness of emissions reduction strategies, including reasons for success or failure; and
(C) New or progressively more mandatory strategies that will be considered.

STATUTORY/OTHER AUTHORITY: ORS 468.035, 468A.010(1), 468A.015, ORS 468.020, 468A.025, 468A.135

STATUTES/OTHER IMPLEMENTED: ORS 468.035, 468A.010(1), 468A.015, 468A.025, 468A.135

AMEND: 340-246-0190

RULE TITLE: Air Toxics Safety Net Program (0190 through 0230)

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Reserving rule for future use.

RULE TEXT:

Reserved for Safety Net Program.

STATUTORY/OTHER AUTHORITY: ORS 468.035, 468A.010(1), 468A.015

STATUTES/OTHER IMPLEMENTED: ORS 468A.015, 468A.025

AMEND: 340-246-0210

RULE TITLE: Air Toxics Safety Net Program (0190 through 0230)

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Reserving rule for future use.

RULE TEXT:

Reserved for Safety Net Program.

STATUTORY/OTHER AUTHORITY: ORS 468.035, 468A.010(1), 468A.015

STATUTES/OTHER IMPLEMENTED: ORS 468A.015, 468A.025

AMEND: 340-246-0230

RULE TITLE: Air Toxics Safety Net Program (0190 through 0230)

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: Reserving rule for future use.

RULE TEXT:

Reserved for Safety Net Program.

STATUTORY/OTHER AUTHORITY: ORS 468.020, 468A. 025, 468A.040, 468A.310

STATUTES/OTHER IMPLEMENTED: ORS 468A.025, 468A.040, 468A.310

ADOPT: 340-247-0010

RULE TITLE: Purpose and Overview

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: New Purpose and Overview rule for division 247.

RULE TEXT:

Purpose and Overview. Division 247 lists air contaminants that are a priority for investigation in Oregon (Table 1), lists health risk-based standards for toxic air contaminants in Oregon (Table 2) and establishes the process for setting and updating these values. These scientific standards, also called toxicity reference values (TRVs), are used to help analyze public health risk from toxic air contaminants. These standards may be used by programs including, but not limited to, Cleaner Air Oregon (OAR-340-245) and the Oregon State Toxic Air Contaminants Program (OAR-340-246). Subject to the requirements in this division and OAR 340-200-0010(3), Lane Regional Air Protection Agency is designated by the EQC to implement the rules in this division within its area of jurisdiction.

STATUTORY/OTHER AUTHORITY: ORS 468.020, ORS 468A.025, ORS 468A.135

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

ADOPT: 340-247-0020

RULE TITLE: Definitions

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: New Definitions rule for division 247.

RULE TEXT:

The definitions in OAR 340-200-0020 and 340-245-0020 and this rule apply to this division. If the same term is defined in this division and elsewhere, the definition in this division applies.

(1) “Toxic air contaminant” means an air pollutant that has been determined by the EQC to cause, or reasonably be anticipated to cause, adverse effects to human health and is listed in OAR 340-247-8010 Table 1.

(2) “Toxicity Reference Value” or “TRV” means the following:

(a) For carcinogens, the air concentration corresponding to a one in one million excess cancer risk, calculated by dividing one in one million (0.000001) by the inhalation unit risk specific to that toxic air contaminant as established by the authoritative body that establishes the value, and as approved by the EQC; and

(b) For noncarcinogens, the air concentration above which relevant effects might occur to humans following environmental exposure, and below which it is reasonably expected that effects will not occur.

(c) For the purposes of these rules, DEQ will use the term toxicity reference value when referring to any similarly derived health-based toxicity value developed by other governmental agencies. Examples of names of values that DEQ will refer to as toxicity reference values include, but are not limited to reference concentrations (RfCs), reference exposure levels (RELs), or minimal risk levels (MRLs).

STATUTORY/OTHER AUTHORITY: ORS 468.020, ORS 468A.025, ORS 468A.135

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

ADOPT: 340-247-0030

RULE TITLE: Toxicity Reference Values

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: New rule containing Toxicity Reference Values resources.

RULE TEXT:

(1) This rule lists sources of toxicity information that the Oregon Health Authority (OHA) and the Department of Environmental Quality (DEQ) consider authoritative in terms of their scientific rigor and methods for producing toxicity information. OHA and DEQ will recommend adoption and use of Toxicity Reference Values from the toxicity information published by the following authoritative sources:

(a) DEQ in consultation with the Air Toxics Science Advisory Committee (ATSAC);

(b) United States Environmental Protection Agency (EPA);

(c) United States Agency for Toxic Substances and Disease Registry (ATSDR); and

(d) California Environmental Protection Agency (CalEPA).

(2) DEQ will calculate Toxicity Reference Values using one in one million as the target excess cancer risk level or a hazard quotient of one for noncancer Toxicity Reference Values.

STATUTORY/OTHER AUTHORITY: ORS 468.020, ORS 468.025, ORS 468A.135

STATUTES/OTHER IMPLEMENTED: ORS 468.025

ADOPT: 340-247-0040

RULE TITLE: Process for Updating the Lists of Priority Toxic Air Contaminants and Toxicity Reference Values

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: New rule describing Process for Updating the Lists of Priority Toxic Air Contaminants and Toxicity Reference Values

RULE TEXT:

(1) Purpose.

(a) As risk assessment and toxicological sciences advance, it is important that TRVs and priority toxic air contaminants continue to reflect the latest practices and science;

(b) These rules include two lists of toxic air contaminants:

(A) OAR 340-247-8010 Table 1 contains toxic air contaminants that are considered a priority for investigation in Oregon. The purpose of OAR 340-247-8010 Table 1 is to maintain a current and broad understanding of statewide toxic air contaminant emissions and ambient concentrations over time; and

(B) OAR 340-247-8020 Table 2 contains toxic air contaminants for which TRVs are readily available. The purpose of OAR 340-247-8020 Table 2 is to evaluate the public health impacts from toxic air contaminants.

(2) OAR 340-247-8010 Table 1, Priority Toxic Air Contaminants List.

(a) The Priority Toxic Air Contaminants List is comprised of contaminants listed on California Air Resources Board's Toxic Air Contaminant Identification List Appendix A-1; Washington's Table of Acceptable Source Impact Levels, Small Quantity Emission Rate, and de minimis emission values; Oregon's Toxics Focus list; and EPA's Hazardous Air Pollutants list;

(b) Every three years starting from November 16, 2018, DEQ, in consultation with OHA, will begin review of the four lists in subsection (a) for changes and may propose rule amendments to update the Priority Toxic Air Contaminants List in OAR 340-247-8010 Table 1 to capture changes in any of those four lists since the last review;

(c) During the reviews of the Priority Toxic Air Contaminants List, DEQ may also propose rule amendments to add or remove toxic air contaminants based on information gathered from past reporting, industry types in Oregon that differ from those in California or Washington, or OHA's and DEQ's knowledge of toxic air contaminants that may be of potential public health concern in Oregon.

(3) OAR 340-247-8020 Table 2, Toxicity Reference Values. Every three years starting from November 16, 2018, or as necessary, DEQ, in consultation with OHA, will begin review of the toxic air contaminants and Toxicity Reference Values published by the authoritative sources listed in OAR 340-247-0030 for changes since the last review. DEQ will propose rule amendments to implement one or more of the following actions, as appropriate:

(a) Revise Toxicity Reference Values for toxic air contaminants listed in OAR 340-247-8020 Table 2 if Toxicity Reference Values have been revised by authoritative sources listed in OAR 340-247-0030 or if indicated as part of the petition process established in section (4);

(b) Add toxic air contaminants to OAR 340-247-8020 Table 2 if Toxicity Reference Values have been generated by authoritative sources listed in OAR 340-247-0030 for toxic air contaminants on the Priority Toxic Air Contaminants List in OAR 340-247-8010 Table 1; and

(c) Remove or revise toxic air contaminants from OAR 340-247-8010 Table 2 if some or all authoritative sources listed in OAR 340-247-0300 have rescinded Toxicity Reference Values for that toxic air contaminant without providing a replacement;

(4) Interested parties may submit petitions to DEQ to update the lists of toxic air contaminants to add or remove toxic air contaminants from OAR 340-247-8010 Table 1 or revise a TRV in OAR 340-247-8020 Table 2.

(a) All petitions must be made in writing and must be received by DEQ by October 31st of the applicable triennial review year described in section (2) or (3);

(b) A request to add a toxic air contaminant to the Priority Toxic Air Contaminants List in OAR 340-0247-8010 Table 1 must include evidence that:

(A) The chemical is emitted in the state of Oregon at a rate of at least 1 pound per year; and
(B) The chemical is toxic;
(c) A request to remove a toxic air contaminant from the Priority Toxic Air Contaminant List in OAR 340-0247-8010 Table 1, must demonstrate that the chemical is emitted in the state of Oregon at a rate less than 1 pound per year;
(d) A request to remove a toxic air contaminant from the TRV List in OAR 340-247-8020 Table 2, must demonstrate that all authoritative sources listed in OAR 340-247-0030 have rescinded TRVs for that toxic air contaminant without providing a replacement;
(e)(A) If the request to add or revise a TRV applies to a toxic air contaminant for which toxicity information is available from one or more of the authoritative sources listed in OAR 340-247-0300, then only petitions to select a Toxicity Reference Value from one of those authoritative sources will be considered;
(B) If there are no TRVs established by any of the authoritative sources listed in OAR 340-247-0030 for a toxic air contaminant, then a petitioner may still request to add Toxicity Reference Values in OAR 340-247-8020 Table 2. The request must include one or more of the following, in order of preference:
(i) Inhalation Toxicity Reference Values established by a federal agency or by another state;
(ii) Publicly available and peer-reviewed toxicity information for the toxic air contaminant that demonstrates a quantitative dose-response relationship in human or animal studies from which Toxicity Reference Values could be calculated; and
(iii) Publicly available and peer-reviewed new approach methodologies for inferring toxicity information from a well-studied toxic air contaminant to a structurally similar, but less-studied toxic air contaminant on the Priority Toxic Air Contaminants List;
(C) If a toxic air contaminant being requested for review has no available toxicity information as described in paragraph (B) and is emitted at a rate of at least one pound per year in the state of Oregon, then DEQ will put the toxic air contaminant on a formal “Wait List”, to be held there until toxicity information for that toxic air contaminant becomes available;
(f) If DEQ, after consultation with OHA, determines that revisions are warranted as a result of a petition, DEQ will consult with ATSAC and propose rule amendments to revise TRVs or for additions or removals of toxic air contaminants to the Priority Toxic Air Contaminants List in OAR 340-247-8010 Table 1 or the TRV list in OAR 340-247-8020 Table 2; and
(g) If DEQ receives a request to add, remove, or revise a TRV or add or remove a toxic air contaminant from the Priority Toxic Air Contaminants List in OAR 340-247-8010 Table 1, or the TRV list in OAR 340-247-8020 Table 2 and the request is received after October 31st the year of the applicable triennial review described in section (2) or (3), DEQ will review the request during the subsequent triennial review in section (3).

STATUTORY/OTHER AUTHORITY: ORS 468.020, ORS 468A.025, ORS 468A.135

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

ADOPT: 340-247-0050

RULE TITLE: Air Toxics Science Advisory Committee

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: New rule describing the Air Toxics Science Advisory Committee.

RULE TEXT:

(1) Purpose. The Commission recognizes the many scientific uncertainties associated with the effects of toxic air contaminants, and the continuing development of new information in this field. An Air Toxics Science Advisory Committee (ATSAC), will advise DEQ, on the development of TRVs to be recommended to the Commission for use in the state's toxic air contaminant program. The ATSAC will review and provide feedback on TRVs proposed by DEQ.

(2) Staffing. Personnel from both the DEQ and OHA will coordinate the work of ATSAC.

(3) Membership. The ATSAC will be composed of highly qualified members with experience relevant to the development and review of toxicity reference values. There will be at least five but no more than seven members. DEQ will evaluate qualifications of each ATSAC member and the capacity of the committee as a whole by seeking skills and experience relevant to:

(a) Toxicology and/or Toxicity Assessment, with additional consideration for experts with specialization in:

(A) Inhalation toxicology;

(B) Reproductive toxicology; or

(C) Developmental toxicology;

(b) Environmental and/or Atmospheric Chemistry, with additional consideration for experts with specialization in:

(A) Multi-pathway exposure;

(B) Bioaccumulation; and

(c) Epidemiology/Biostatistics, with additional consideration for experts with specialization in:

(A) Environmental public health;

(B) Neonatal and children's health;

(C) Medicine, or

(D) Health of vulnerable populations.

(4) Appointment. DEQ's Air Quality Division Administrator will nominate potential members to the Director. Before making these nominations, the Administrator will develop a list of candidates by consulting with government, public, and private organizations involved in work relevant to toxic air contaminants. The Director will appoint ATSAC members with concurrence by the Commission.

(5) Term. Air Toxics Science Advisory Committee members each will serve a three-year term. Initial terms will be staggered for continuity and transfer of work so that members of the first ATSAC may serve more or less than three years.

(6) Operation.

(a) No member may have an actual or potential conflict of interest, as those terms are defined by ORS 244.020 and must otherwise comply with government ethics requirements in ORS chapter 244.

(b) The ATSAC will meet as determined necessary by DEQ.

(c) The ATSAC members will provide DEQ with findings and recommendations that DEQ will report to the Environmental Quality Commission, including consensus, majority, and minority opinions.

(d) If necessary, DEQ may obtain a facilitator to assist the ATSAC.

(e) ATSAC may remove a member for cause, with concurrence by the Commission.

STATUTORY/OTHER AUTHORITY: ORS 468.035, 468A.010(1), ORS 468A.015, 468A.135

STATUTES/OTHER IMPLEMENTED: ORS 468A.015, 468A.025

ADOPT: 340-247-8010

RULE TITLE: Tables

NOTICE FILED DATE: 06/29/2021

RULE SUMMARY: New rule containing the tables for division 247.

RULE TEXT:

(1) Table 1 – Priority Toxic Air Contaminant List

(2) Table 2 - Toxicity Reference Values

STATUTORY/OTHER AUTHORITY: ORS 468.020, ORS 468A.025, ORS 468A.135

STATUTES/OTHER IMPLEMENTED: ORS 468A.025

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
75-07-0	Acetaldehyde
60-35-5	Acetamide
67-64-1	Acetone
75-05-8	Acetonitrile
98-86-2	Acetophenone
107-02-8	Acrolein
79-06-1	Acrylamide
79-10-7	Acrylic acid
107-13-1	Acrylonitrile
50-76-0	Actinomycin D
1596-84-5	Alar
309-00-2	Aldrin
107-05-1	Allyl chloride
7429-90-5	Aluminum and compounds[b]
1344-28-1	Aluminum oxide (fibrous forms)
97-56-3	*ortho*-Aminoazotoluene
6109-97-3	3-Amino-9-ethylcarbazole hydrochloride
68006-83-7	2-Amino-3-methyl-9H pyrido[2,3-b]indole
82-28-0	1-Amino-2-methylanthraquinone
76180-96-6	2-Amino-3-methylimidazo-[4,5-f]quinoline
712-68-5	2-Amino-5-(5-nitro-2-furyl)-1,3,4-thiadiazole
26148-68-5	A-alpha-c(2-amino-9h-pyrido[2,3-b]indole)
92-67-1	4-Aminobiphenyl
61-82-5	Amitrole
7664-41-7	Ammonia
7803-63-6	Ammonium bisulfate
6484-52-2	Ammonium nitrate
7783-20-2	Ammonium sulfate
62-53-3	Aniline
90-04-0	*o*-Anisidine
134-29-2	*o*-Anisidine hydrochloride
7440-36-0	Antimony and compounds[b]
1309-64-4	Antimony trioxide
140-57-8	Aramite

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
7440-38-2	Arsenic and compounds[b]
7784-42-1	Arsine
1332-21-4	Asbestos
492-80-8	Auramine
115-02-6	Azaserine
446-86-6	Azathioprine
52-24-4	*tris*-(1-Aziridinyl)phosphine sulfide
103-33-3	Azobenzene
7440-39-3	Barium and compounds[b]
71-43-2	Benzene
92-87-5	Benzidine (and its salts)
271-89-6	Benzofuran
98-07-7	Benzoic trichloride (benzotrichloride)
98-88-4	Benzoyl chloride
94-36-0	Benzoyl peroxide
100-44-7	Benzyl chloride
1694-09-3	Benzyl Violet 4B
7440-41-7	Beryllium and compounds[b]
1304-56-9	Beryllium oxide
13510-49-1	Beryllium sulfate
92-52-4	Biphenyl
111-44-4	*Bis*(2-chloroethyl) ether (BCEE)
542-88-1	*Bis*(chloromethyl) ether
103-23-1	*Bis*(2-ethylhexyl) adipate
117-81-7	*Bis*(2-ethylhexyl) phthalate (DEHP)
7726-95-6	Bromine and compounds[b]
7789-30-2	Bromine pentafluoride
75-27-4	Bromodichloromethane
75-25-2	Bromoform
74-83-9	Bromomethane (methyl bromide)
106-94-5	1-Bromopropane (*n*-propyl bromide)
126-72-7	*tris*(2,3-Dibromopropyl)phosphate
106-99-0	1,3-Butadiene
78-93-3	2-Butanone (methyl ethyl ketone)

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
540-88-5	*t*-Butyl acetate
141-32-2	Butyl acrylate
71-36-3	*n*-Butyl alcohol
78-92-2	*sec*-Butyl alcohol
75-65-0	*tert*-Butyl alcohol
85-68-7	Butyl benzyl phthalate
25013-16-5	Butylated hydroxyanisole
3068-88-0	*beta*-Butyrolactone
7440-43-9	Cadmium and compounds[b]
156-62-7	Calcium cyanamide
105-60-2	Caprolactam
2425-06-1	Captafol
133-06-2	Captan
89[†]	Carbon black extracts
75-15-0	Carbon disulfide
56-23-5	Carbon tetrachloride
463-58-1	Carbonyl sulfide
9000-07-1	Carrageenan (degraded)
120-80-9	Catechol
351[†]	Ceramic fibers
133-90-4	Chloramben
305-03-3	Chlorambucil
57-74-9	Chlordane
143-50-0	Chlordecone
115-28-6	Chlorendic acid
76-13-1	Chlorinated fluorocarbon (1,1,2-trichloro-1,2,2-trifluoroethane, CFC-113)
108171-26-2	Chlorinated paraffins
7782-50-5	Chlorine
10049-04-4	Chlorine dioxide
79-11-8	Chloroacetic acid
532-27-4	2-Chloroacetophenone
85535-84-8	Chloroalkanes C10-13 (chlorinated paraffins)
106-47-8	*p*-Chloroaniline
108-90-7	Chlorobenzene

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
510-15-6	Chlorobenzilate (ethyl-4,4'-dichlorobenzilate)
75-68-3	1-Chloro-1,1-difluoroethane
75-45-6	Chlorodifluoromethane (Freon 22)
75-00-3	Chloroethane (ethyl chloride)
67-66-3	Chloroform
74-87-3	Chloromethane (methyl chloride)
107-30-2	Chloromethyl methyl ether (technical grade)
563-47-3	3-Chloro-2-methyl-1-propene
95-57-8	2-Chlorophenol
95-83-0	4-Chloro-*o*-phenylenediamine
76-06-2	Chloropicrin
126-99-8	Chloroprene
1897-45-6	Chlorothalonil
95-69-2	*p*-Chloro-*o*-toluidine
54749-90-5	Chlorozotocin
18540-29-9	Chromium VI, chromate and dichromate particulate
7738-94-5	Chromium VI, chromic acid aerosol mist and chromium trioxide
569-61-9	C.I. Basic Red 9 monohydrochloride
87-29-6	Cinnamyl anthranilate
7440-48-4	Cobalt and compounds[b]
148[†]	Coke oven emissions
7440-50-8	Copper and compounds[b]
150[†]	Creosotes
120-71-8	*p*-Cresidine
1319-77-3	Cresols (mixture), including *m*-cresol, *o*-cresol, *p*-cresol
108-39-4	*m*-Cresol
95-48-7	*o*-Cresol
106-44-5	*p*-Cresol
4170-30-3	Crotonaldehyde
80-15-9	Cumene hydroperoxide
135-20-6	Cupferron
74-90-8	Cyanide, hydrogen
110-82-7	Cyclohexane
108-93-0	Cyclohexanol

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
66-81-9	Cycloheximide
50-18-0	Cyclophosphamide (anhydrous)
6055-19-2	Cyclophosphamide (hydrated)
5160-02-1	D & C Red No. 9
4342-03-4	Dacarbazine
117-10-2	Danthron (chrysazin)
72-54-8	4,4'-DDD (4,4'-dichlorodiphenyldichloroethane)
53-19-0	2,4'-DDD (2,4'-dichlorodiphenyldichloroethane)
3547-04-4	DDE (1-chloro-4-[1-(4-chlorophenyl)ethyl]benzene)
3424-82-6	2,4'-DDE (2,4'-dichlorodiphenyldichloroethene)
72-55-9	4,4'-DDE (4,4'-dichlorodiphenyldichloroethene)
789-02-6	2,4'-DDT (2,4'-dichlorodiphenyltrichloroethane)
50-29-3	DDT
615-05-4	2,4-Diaminoanisole
39156-41-7	2,4-Diaminoanisole sulfate
101-80-4	4,4'-Diaminodiphenyl ether
95-80-7	2,4-Diaminotoluene (2,4-toluene diamine)
334-88-3	Diazomethane
333-41-5	Diazinon
132-64-9	Dibenzofuran
124-48-1	Dibromochloromethane
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)
96-13-9	2,3-Dibromo-1-propanol
84-74-2	Dibutyl phthalate
95-50-1	1,2-Dichlorobenzene
541-73-1	1,3-Dichlorobenzene
106-46-7	*p*-Dichlorobenzene (1,4-dichlorobenzene)
91-94-1	3,3'-Dichlorobenzidine
75-71-8	Dichlorodifluoromethane (Freon 12)
75-43-4	Dichlorofluoromethane (Freon 21)
75-34-3	1,1-Dichloroethane (ethylidene dichloride)
156-60-5	*trans*-1,2-Dichloroethene
75-09-2	Dichloromethane (methylene chloride)
120-83-2	2,4-Dichlorophenol

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
94-75-7	Dichlorophenoxyacetic acid, salts and esters (2,4-D)
78-87-5	1,2-Dichloropropane (propylene dichloride)
542-75-6	1,3-Dichloropropene
62-73-7	Dichlorvos (DDVP)
115-32-2	Dicofol
84-61-7	Di-cyclohexyl phthalate (DCHP)
60-57-1	Dieldrin
200[†]	Diesel particulate matter
111-42-2	Diethanolamine
111-46-6	Diethylene glycol
111-96-6	Diethylene glycol dimethyl ether
112-34-5	Diethylene glycol monobutyl ether
111-90-0	Diethylene glycol monoethyl ether
111-77-3	Diethylene glycol monomethyl ether
84-66-2	Diethylphthalate
64-67-5	Diethyl sulfate
134-62-3	Diethyltoluamide, N,N- (DEET)
75-37-6	1,1-Difluoroethane
101-90-6	Diglycidyl resorcinol ether
94-58-6	Dihydrosafrole
119-90-4	3,3'-Dimethoxybenzidine
60-11-7	4-Dimethylaminoazobenzene
121-69-7	N,N-Dimethylaniline
119-93-7	3,3'-Dimethylbenzidine (*o*-tolidine)
79-44-7	Dimethyl carbamoyl chloride
68-12-2	Dimethyl formamide
57-14-7	1,1-Dimethylhydrazine
131-11-3	Dimethyl phthalate
77-78-1	Dimethyl sulfate
513-37-1	Dimethylvinylchloride
534-52-1	4,6-Dinitro-o-cresol (and salts)
51-28-5	2,4-Dinitrophenol
121-14-2	2,4-Dinitrotoluene
606-20-2	2,6-Dinitrotoluene

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
123-91-1	1,4-Dioxane
630-93-3	Diphenylhydantoin
122-66-7	1,2-Diphenylhydrazine (hydrazobenzene)
25265-71-8	Dipropylene glycol
34590-94-8	Dipropylene glycol monomethyl ether
1937-37-7	Direct Black 38
2602-46-2	Direct Blue 6
16071-86-6	Direct Brown 95 (technical grade)
2475-45-8	Disperse Blue 1
298-04-4	Disulfoton
106-89-8	Epichlorohydrin
106-88-7	1,2-Epoxybutane
227†	Epoxy resins
12510-42-8	Erionite
140-88-5	Ethyl acrylate
100-41-4	Ethyl benzene
74-85-1	Ethylene
106-93-4	Ethylene dibromide (EDB, 1,2-dibromoethane)
107-06-2	Ethylene dichloride (EDC, 1,2-dichloroethane)
107-21-1	Ethylene glycol
629-14-1	Ethylene glycol diethyl ether
110-71-4	Ethylene glycol dimethyl ether
111-76-2	Ethylene glycol monobutyl ether
110-80-5	Ethylene glycol monoethyl ether
111-15-9	Ethylene glycol monoethyl ether acetate
109-86-4	Ethylene glycol monomethyl ether
110-49-6	Ethylene glycol monomethyl ether acetate
2807-30-9	Ethylene glycol monopropyl ether
151-56-4	Ethyleneimine (aziridine)
75-21-8	Ethylene oxide
96-45-7	Ethylene thiourea
10028-22-5	Ferric sulfate
239†	Fluorides
7782-41-4	Fluorine gas

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
50-00-0	Formaldehyde
110-00-9	Furan
60568-05-0	Furmecyclox
3688-53-7	Furylfuramide
352[†]	Glasswool fibers
111-30-8	Glutaraldehyde
67730-11-4	Glu-P-1
67730-10-3	Glu-P-2
16568-02-8	Gyromitrin
2784-94-3	HC Blue 1
76-44-8	Heptachlor
1024-57-3	Heptachlor epoxide
118-74-1	Hexachlorobenzene
87-68-3	Hexachlorobutadiene
608-73-1	Hexachlorocyclohexanes (mixture) including but not limited to:
319-84-6	*alpha*-Hexachlorocyclohexane
319-85-7	*beta*-Hexachlorocyclohexane
58-89-9	*gamma*-Hexachlorocyclohexane (Lindane)
77-47-4	Hexachlorocyclopentadiene
67-72-1	Hexachloroethane
680-31-9	Hexamethylphosphoramide
822-06-0	Hexamethylene-1,6-diisocyanate
110-54-3	Hexane
302-01-2	Hydrazine
10034-93-2	Hydrazine sulfate
7647-01-0	Hydrochloric acid
10035-10-6	Hydrogen bromide
7664-39-3	Hydrogen fluoride
7783-06-4	Hydrogen sulfide
123-31-9	Hydroquinone
10043-66-0	Iodine-131
13463-40-6	Iron pentacarbonyl
78-59-1	Isophorone
78-79-5	Isoprene, except from vegetative emission sources

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
67-63-0	Isopropyl alcohol
98-82-8	Isopropylbenzene (cumene)
80-05-7	4,4'-Isopropylidenediphenol (bisphenol A)
303-34-4	Lasiocarpine
7439-92-1	Lead and compounds[b]
18454-12-1	Lead chromate oxide
108-31-6	Maleic anhydride
7439-96-5	Manganese and compounds[b]
148-82-3	Melphalan
3223-07-2	Melphalan HCl
7439-97-6	Mercury and compounds[b]
627-44-1	Diethylmercury
593-74-8	Dimethylmercury
22967-92-6	Methylmercury
67-56-1	Methanol
72-43-5	Methoxychlor
55738-54-0	*trans*-2[(Dimethylamino)-methylimino]-5-[2-(5-nitro-2-furyl)-vinyl]-1,3,4-oxadiazole
101-14-4	4,4'-Methylene *bis*(2-chloroaniline) (MOCA)
101-77-9	4,4'-Methylenedianiline (and its dichloride)
13552-44-8	4,4’-Methylenedianiline dihydrochloride
838-88-0	4,4’-Methylene *bis*(2-methylaniline)
101-61-1	4,4'-Methylene *bis*(*N*,*N*'-dimethyl)aniline
101-68-8	Methylene diphenyl diisocyanate (MDI)
60-34-4	Methyl hydrazine
540-73-8	1,2-Dimethylhydrazine
74-88-4	Methyl iodide (iodomethane)
108-10-1	Methyl isobutyl ketone (MIBK, hexone)
624-83-9	Methyl isocyanate
75-86-5	2-Methyllactonitrile (acetone cyanohydrin)
80-62-6	Methyl methacrylate
66-27-3	Methyl methanesulfonate
129-15-7	2-Methyl-1-nitroanthraquinone
70-25-7	N-Methyl-N-nitro-N-nitrosoguanidine

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
832-69-9	1-Methylphenanthrene
2381-21-7	1-Methylpyrene
109-06-8	2-Methylpyridine
1634-04-4	Methyl *tert*-butyl ether
56-04-2	Methylthiouracil
90-94-8	Michler's ketone
349†	Mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.
350†	Mineral fibers (fine mineral fibers which are man-made, and are airborne particles of a respirable size greater than 5 microns in length, less than or equal to 3.5 microns in diameter, with a length to diameter ratio of 3:1)
2385-85-5	Mirex
50-07-7	Mitomycin C
1313-27-5	Molybdenum trioxide
315-22-0	Monocrotaline
91-59-8	2-Naphthylamine
91-20-3	Naphthalene
7440-02-0	Nickel and compounds[b]
365†	Nickel compounds, insoluble
7440-02-0	Nickel metal
1313-99-1	Nickel oxide
12035-72-2	Nickel subsulfide
11113-75-0	Nickel sulfide
368†	Nickel compounds, soluble
373-02-4	Nickel acetate
3333-67-3	Nickel carbonate
12607-70-4	Nickel carbonate hydroxide
13463-39-3	Nickel carbonyl
7718-54-9	Nickel chloride
12054-48-7	Nickel hydroxide
7786-81-4	Nickel sulfate
10101-97-0	Nickel sulfate hexahydrate
13478-00-7	Nickel nitrate hexahydrate
1271-28-9	Nickelocene

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
3570-75-0	Nifurthiazole
7697-37-2	Nitric acid
139-13-9	Nitrilotriacetic acid
18662-53-8	Nitrilotriacetic acid, trisodium salt monohydrate
99-59-2	5-Nitro-*o*-anisidine
98-95-3	Nitrobenzene
92-93-3	4-Nitrobiphenyl
1836-75-5	Nitrofen
59-87-0	Nitrofurazone
555-84-0	1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone
531-82-8	N-[4-(5-nitro-2-furyl)-2-thiazolyl]-acetamide
302-70-5	Nitrogen mustard N-oxide
100-02-7	4-Nitrophenol
79-46-9	2-Nitropropane
924-16-3	N-Nitrosodibutylamine
1116-54-7	N-Nitrosodiethanolamine
55-18-5	N-Nitrosodiethylamine
62-75-9	N-Nitrosodimethylamine
86-30-6	N-Nitrosodiphenylamine
156-10-5	*p*-Nitrosodiphenylamine
621-64-7	N-Nitrosodipropylamine
10595-95-6	N-Nitrosomethylethylamine
759-73-9	N-Nitroso-N-ethylurea
615-53-2	N-Nitroso-N-methylurethane
684-93-5	N-Nitroso-N-methylurea
59-89-2	N-Nitrosomorpholine
16543-55-8	N-Nitrosonornicotine
100-75-4	N-Nitrosopiperidine
930-55-2	N-Nitrosopyrrolidine
39765-80-5	*trans*-Nonachlor
104-40-5	Nonylphenol, 4- (& ethoxylates)
8014-95-7	Oleum (fuming sulfuric acid)
56-38-2	Parathion
87-86-5	Pentachlorophenol

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
32534-81-9	Pentabromodiphenyl ether
82-68-8	Pentachloronitrobenzene (quintobenzene)
79-21-0	Peracetic acid
489[†]	Perfluorinated compounds (PFCs)
335-67-1	Perfluorooctanoic acid (PFOA)
1763-23-1	Perfluorooctanesulfonic acid (PFOS)
62-44-2	Phenacetin
94-78-0	Phenazopyridine
136-40-3	Phenazopyridine hydrochloride
3546-10-9	Phenesterin
50-06-6	Phenobarbital
108-95-2	Phenol
59-96-1	Phenoxybenzamine
63-92-3	Phenoxybenzamine hydrochloride
106-50-3	*p*-Phenylenediamine
132-27-4	*o*-Phenylphenate, sodium
90-43-7	2-Phenylphenol
75-44-5	Phosgene
7803-51-2	Phosphine
7664-38-2	Phosphoric acid
7723-14-0	Phosphorus and compounds[b]
10025-87-3	Phosphorus oxychloride
10026-13-8	Phosphorus pentachloride
1314-56-3	Phosphorus pentoxide
7719-12-2	Phosphorus trichloride
12185-10-3	Phosphorus, white
518[†]	Phthalates
85-44-9	Phthalic anhydride
447[†]	Polybrominated diphenyl ethers (PBDEs)
5436-43-1	PBDE-47 [2,2',4,4'-tetrabromodiphenyl ether]
60348-60-9	PBDE-99 [2,2',4,4',5-pentabromodiphenyl ether]
189084-64-8	PBDE-100 [2,2',4,4',6-pentabromodiphenyl ether]
182677-30-1	PBDE-138 [2,2',3,4,4',5'-hexabromodiphenyl ether]
68631-49-2	PBDE-153 [2,2',4,4',5,5'-hexabromodiphenyl ether]

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
207122-15-4	PBDE-154 [2,2’,4,4’,5,6’-hexabromodiphenyl ether]
207122-16-5	PBDE-183 [2,2',3,4,4',5',6-heptabromodiphenyl ether]
1163-19-5	PBDE-209 [decabromodiphenyl ether]
1336-36-3	Polychlorinated biphenyls (PCBs)
645[†]	Polychlorinated biphenyls (PCBs) TEQ[c]
34883-43-7	PCB-8 [2,4'-dichlorobiphenyl]
37680-65-2	PCB 18 [2,2',5-trichlorobiphenyl]
7012-37-5	PCB-28 [2,4,4'-trichlorobiphenyl]
41464-39-5	PCB-44 [2,2',3,5'-tetrachlorobiphenyl]
35693-99-3	PCB-52 [2,2',5,5'-tetrachlorobiphenyl]
32598-10-0	PCB-66 [2,3',4,4'-tetrachlorobiphenyl]
32598-13-3	PCB 77 [3,3',4,4'-tetrachlorobiphenyl]
70362-50-4	PCB 81 [3,4,4',5-tetrachlorobiphenyl]
37680-73-2	PCB-101 [2,2',4,5,5'-pentachlorobiphenyl]
32598-14-4	PCB 105 [2,3,3',4,4'-pentachlorobiphenyl]
74472-37-0	PCB 114 [2,3,4,4',5-pentachlorobiphenyl]
31508-00-6	PCB 118 [2,3',4,4',5-pentachlorobiphenyl]
65510-44-3	PCB 123 [2,3',4,4',5'-pentachlorobiphenyl]
57465-28-8	PCB 126 [3,3',4,4',5-pentachlorobiphenyl]
38380-07-3	PCB-128 [2,2',3,3',4,4'-hexachlorobiphenyl]
35065-28-2	PCB-138 [2,2',3,4,4',5'-hexachlorobiphenyl]
35065-27-1	PCB-153 [2,2',4,4',5,5'-hexachlorobiphenyl]
38380-08-4	PCB 156 [2,3,3',4,4',5-hexachlorobiphenyl]
69782-90-7	PCB 157 [2,3,3',4,4',5'-hexachlorobiphenyl]
52663-72-6	PCB 167 [2,3',4,4',5,5'-hexachlorobiphenyl]
32774-16-6	PCB 169 [3,3',4,4',5,5'-hexachlorobiphenyl]
35065-30-6	PCB-170 [2,2',3,3',4,4',5-heptachlorobiphenyl]
35065-29-3	PCB-180 [2,2',3,4,4',5,5'-heptachlorobiphenyl]
52663-68-0	PCB-187 [2,2',3,4',5,5',6-heptachlorobiphenyl]
39635-31-9	PCB 189 [2,3,3',4,4',5,5'-heptachlorobiphenyl]
52663-78-2	PCB-195 [2,2',3,3',4,4',5,6-octachlorobiphenyl]
40186-72-9	PCB-206 [2,2',3,3',4,4',5,5',6-nonachlorobiphenyl]
2051-24-3	PCB-209 [decachlorobiphenyl]
646[†]	Polychlorinated dibenzo-*p*-dioxins (PCDDs) & dibenzofurans (PCDFs) TEQ[c]

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
1746-01-6	2,3,7,8-Tetrachlorodibenzo-*p*-dioxin (TCDD)
40321-76-4	1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin (PeCDD)
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin (HxCDD)
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin (HxCDD)
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin (HxCDD)
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin (HpCDD)
3268-87-9	Octachlorodibenzo-*p*-dioxin (OCDD)
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran (TCDF)
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)
39001-02-0	Octachlorodibenzofuran (OCDF)
401[†]	Polycyclic aromatic hydrocarbons (PAHs)
83-32-9	Acenaphthene
208-96-8	Acenaphthylene
120-12-7	Anthracene
191-26-4	Anthanthrene
56-55-3	Benz[a]anthracene
50-32-8	Benzo[a]pyrene
205-99-2	Benzo[b]fluoranthene
205-12-9	Benzo[c]fluorene
192-97-2	Benzo[e]pyrene
191-24-2	Benzo[g,h,i]perylene
205-82-3	Benzo[j]fluoranthene
207-08-9	Benzo[k]fluoranthene
86-74-8	Carbazole
218-01-9	Chrysene
27208-37-3	Cyclopenta[c,d]pyrene
226-36-8	Dibenz[a,h]acridine

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
224-42-0	Dibenz[a,j]acridine
194-59-2	7H-Dibenzo[c,g]carbazole
53-70-3	Dibenz[a,h]anthracene
5385-75-1	Dibenzo[a,e]fluoranthene
192-65-4	Dibenzo[a,e]pyrene
189-64-0	Dibenzo[a,h]pyrene
189-55-9	Dibenzo[a,i]pyrene
191-30-0	Dibenzo[a,l]pyrene
206-44-0	Fluoranthene
86-73-7	Fluorene
193-39-5	Indeno[1,2,3-cd]pyrene
91-57-6	2-Methyl naphthalene
198-55-0	Perylene
85-01-8	Phenanthrene
129-00-0	Pyrene
432[†]	Polycyclic aromatic hydrocarbon derivatives [PAH-Derivatives]
53-96-3	2-Acetylaminofluorene
117-79-3	2-Aminoanthraquinone
63-25-2	Carbaryl
57-97-6	7,12-Dimethylbenz[a]anthracene
42397-64-8	1,6-Dinitropyrene
42397-65-9	1,8-Dinitropyrene
56-49-5	3-Methylcholanthrene
3697-24-3	5-Methylchrysene
602-87-9	5-Nitroacenaphthene
7496-02-8	6-Nitrochrysene
607-57-8	2-Nitrofluorene
5522-43-0	1-Nitropyrene
57835-92-4	4-Nitropyrene
3564-09-8	Ponceau 3R
3761-53-3	Ponceau MX
7758-01-2	Potassium bromate
671-16-9	Procarbazine
366-70-1	Procarbazine hydrochloride

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
1120-71-4	1,3-Propane sultone
57-57-8	*beta*-Propiolactone
123-38-6	Propionaldehyde
114-26-1	Propoxur (Baygon)
115-07-1	Propylene
6423-43-4	Propylene glycol dinitrate
107-98-2	Propylene glycol monomethyl ether
108-65-6	Propylene glycol monomethyl ether acetate
75-56-9	Propylene oxide
75-55-8	1,2-Propyleneimine (2-methylaziridine)
51-52-5	Propylthiouracil
110-86-1	Pyridine
91-22-5	Quinoline
106-51-4	Quinone
571[†]	Radon and its decay products
572[†]	Refractory ceramic fibers
50-55-5	Reserpine
353[†]	Rockwool
94-59-7	Safrole
7783-07-5	Selenide, hydrogen
7782-49-2	Selenium and compounds[b]
7446-34-6	Selenium sulfide
7631-86-9	Silica, crystalline (respirable)
7440-22-4	Silver and compounds[b]
354[†]	Slagwool
1310-73-2	Sodium hydroxide
10048-13-2	Sterigmatocystin
18883-66-4	Streptozotocin
100-42-5	Styrene
96-09-3	Styrene oxide
95-06-7	Sulfallate
7664-93-9	Sulfuric acid
505-60-2	Sulfur mustard
7446-11-9	Sulfur trioxide

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
358[†]	Talc containing asbestiform fibers
100-21-0	Terephthalic acid
40088-47-9	Tetrabromodiphenyl ether
630-20-6	1,1,1,2-Tetrachloroethane
79-34-5	1,1,2,2-Tetrachloroethane
127-18-4	Tetrachloroethene (perchloroethylene)
58-90-2	2,3,4,6-Tetrachlorophenol
811-97-2	1,1,1,2-Tetrafluoroethane
7440-28-0	Thallium and compounds[b]
62-55-5	Thioacetamide
139-65-1	4,4'-Thiodianiline
62-56-6	Thiourea
7550-45-0	Titanium tetrachloride
108-88-3	Toluene
26471-62-5	Toluene diisocyanates (2,4- and 2,6-)
584-84-9	Toluene-2,4-diisocyanate
91-08-7	Toluene-2,6-diisocyanate
95-53-4	*o*-Toluidine
636-21-5	*o*-Toluidine hydrochloride
41903-57-5	Total tetrachlorodibenzo-*p*-dioxin
36088-22-9	Total pentachlorodibenzo-*p*-dioxin
34465-46-8	Total hexachlorodibenzo-*p*-dioxin
37871-00-4	Total heptachlorodibenzo-*p*-dioxin
55722-27-5	Total tetrachlorodibenzofuran
30402-15-4	Total pentachlorodibenzofuran
55684-94-1	Total hexachlorodibenzofuran
38998-75-3	Total heptachlorodibenzofuran
8001-35-2	Toxaphene (polychlorinated camphenes)
126-73-8	Tributyl phosphate
120-82-1	1,2,4-Trichlorobenzene
71-55-6	1,1,1-Trichloroethane (methyl chloroform)
79-00-5	1,1,2-Trichloroethane (vinyl trichloride)
79-01-6	Trichloroethene (TCE, trichloroethylene)
75-69-4	Trichlorofluoromethane (Freon 11)

OAR 340-247-8010
Table 1 Toxic Air Contaminant Priority List

CASRN[a]	Chemical Name
95-95-4	2,4,5-Trichlorophenol
88-06-2	2,4,6-Trichlorophenol
96-18-4	1,2,3-Trichloropropane
78-40-0	Triethyl phosphate
121-44-8	Triethylamine
112-49-2	Triethylene glycol dimethyl ether
512-56-1	Trimethyl phosphate
78-30-8	Triorthocresyl phosphate
115-86-6	Triphenyl phosphate
101-02-0	Triphenyl phosphite
1582-09-8	Trifluralin
526-73-8	1,2,3-Trimethylbenzene
95-63-6	1,2,4-Trimethylbenzene
108-67-8	1,3,5-Trimethylbenzene
540-84-1	2,2,4-Trimethylpentane
62450-06-0	Tryptophan-P-1
62450-07-1	Tryptophan-P-2
51-79-6	Urethane (ethyl carbamate)
7440-62-2	Vanadium (fume or dust)
1314-62-1	Vanadium pentoxide
108-05-4	Vinyl acetate
593-60-2	Vinyl bromide
75-01-4	Vinyl chloride
100-40-3	4-Vinylcyclohexene
75-02-5	Vinyl fluoride
75-35-4	Vinylidene chloride
1330-20-7	Xylene (mixture), including *m*-xylene, *o*-xylene, *p*-xylene
108-38-3	*m*-Xylene
95-47-6	*o*-Xylene
106-42-3	*p*-Xylene
7440-66-6	Zinc and compounds[b]
1314-13-2	Zinc oxide

Footnotes for OAR 340-247-8010 Table 1:

† Chemical designated by DEQ ID number.
a) CASRN = Chemical Abstracts Service Registry Number, or DEQ ID if there is no CASRN.
b) Inorganic chemicals designated with "and compounds" should be reported as the sum of all forms of the chemical, expressed as the inorganic element.
c) TEQ = toxic equivalency, relative to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin.

Stat. Auth.: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155
Stats. Implemented: ORS 468.065, 468A.010, 468A.015, 468A.025, 468A.035, 468A.040, 468A.050, 468A.070, and 468A.155

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
75-07-0	Acetaldehyde		HI3	0.45	A	140	O	470	O
60-35-5	Acetamide			0.050	O				
67-64-1	Acetone		HI3			31,000	T	62,000	S
75-05-8	Acetonitrile		HI3			60	I		
107-02-8	Acrolein		HI5			0.35	A	6.9	T
79-06-1	Acrylamide		HI3	0.010	I	6.0	I		
79-10-7	Acrylic acid		HI3			1.0	I	6,000	O
107-13-1	Acrylonitrile		HI3	0.015	A	5.0	O	220	T
309-00-2	Aldrin			0.00020	I				
107-05-1	Allyl chloride		HI3	0.17	O	1.0	I		
7429-90-5	Aluminum and compounds	o	HI5			5.0	P		
7664-41-7	Ammonia		HI3			500	A	1,200	T
62-53-3	Aniline		HI5	0.63	O	1.0	I		
7440-36-0	Antimony and compounds	o	HI3			0.30	T	1.0	T
140-57-8	Aramite			0.14	I				
7440-38-2	Arsenic and compounds	o	HI3	0.00023	A	0.015	O	0.20	S

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
7784-42-1	Arsine		HI3			0.015	O	0.20	O
1332-21-4	Asbestos	k		4.3E-06	I				
103-33-3	Azobenzene			0.032	I				
71-43-2	Benzene	j	HI3	0.13	A	3.0	O	29	T
92-87-5	Benzidine (and its salts)			7.1E-06	O				
100-44-7	Benzyl chloride		HI3	0.020	O	1.0	P	240	O
7440-41-7	Beryllium and compounds	o	HI3	0.00042	A	0.0070	O	0.020	S
111-44-4	*Bis*(2-chloroethyl) ether (BCEE)		HI3	0.0014	O			120	Tint
542-88-1	*Bis*(chloromethyl) ether		HI5	7.7E-05	O			1.4	Tint
117-81-7	*Bis*(2-ethylhexyl) phthalate (DEHP)			0.42	O				
75-25-2	Bromoform			0.91	I				
74-83-9	Bromomethane (methyl bromide)		HI3			5.0	A	3,900	O
106-94-5	1-Bromopropane (*n*-propyl bromide)		HI3	0.48	A	33	T	1,700	T
106-99-0	1,3-Butadiene		HI3	0.033	A	2.0	O	660	O

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
78-93-3	2-Butanone (methyl ethyl ketone)		HI3			5,000	I	5,000	S
78-92-2	*sec*-Butyl alcohol		HI3			30,000	P		
7440-43-9	Cadmium and compounds	o	HI3	0.00056	A	0.010	T	0.030	S
105-60-2	Caprolactam		HI3			2.2	O	50	O
75-15-0	Carbon disulfide		HI3			800	A	6,200	O
56-23-5	Carbon tetrachloride		HI3	0.17	A	100	I	1,900	O
463-58-1	Carbonyl sulfide		HI3			10	O	660	O
57-74-9	Chlordane	j	HI3	0.010	I	0.020	T	0.20	Tint
108171-26-2	Chlorinated paraffins	n		0.040	O				
7782-50-5	Chlorine		HI3			0.15	A	170	T
10049-04-4	Chlorine dioxide		HI3			0.60	O	2.8	Tint
532-27-4	2-Chloroacetophenone		HI5			0.030	I		
108-90-7	Chlorobenzene		HI3			50	P		
75-68-3	1-Chloro-1,1-difluoroethane		HI3			50,000	I		
75-45-6	Chlorodifluoromethane (Freon 22)		HI3			50,000	I		

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
75-00-3	Chloroethane (ethyl chloride)		HI3			30,000	O	40,000	T
67-66-3	Chloroform		HI3		A2	300	A	490	T
74-87-3	Chloromethane (methyl chloride)		HI3			90	A	1,000	T
95-83-0	4-Chloro-*o*-phenylenediamine			0.22	O				
76-06-2	Chloropicrin		HI3			0.40	O	29	O
126-99-8	Chloroprene		HI3	0.0033	I	20	I		
95-69-2	*p*-Chloro-*o*-toluidine			0.013	O				
18540-29-9	Chromium VI, chromate and dichromate particulate	d	HI3	8.3E-05	A	0.20	O	0.30	S
7738-94-5	Chromium VI, chromic acid aerosol mist and chromium trioxide	d	HI3	8.3E-05	A	0.0050	T	0.0050	S
7440-48-4	Cobalt and compounds	o	HI3		A2	0.10	A		
148[†]	Coke oven emissions			0.0016	I				
7440-50-8	Copper and compounds	o	HI3					100	O
120-71-8	*p*-Cresidine			0.023	O				

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
1319-77-3	Cresols (mixture), including *m*-cresol, *o*-cresol, *p*-cresol		HI3			600	O		
135-20-6	Cupferron			0.016	O				
74-90-8	Cyanide, hydrogen		HI3			0.80	A	340	O
110-82-7	Cyclohexane		HI3			6,000	I		
50-29-3	DDT	e		0.010	I				
615-05-4	2,4-Diaminoanisole			0.15	O				
95-80-7	2,4-Diaminotoluene (2,4-toluene diamine)			0.00091	O				
333-41-5	Diazinon		HI3					10	Tint
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		HI3	0.00017	P	0.20	I	1.9	Tint
106-46-7	*p*-Dichlorobenzene (1,4-dichlorobenzene)		HI3	0.091	A	60	T	12,000	T
91-94-1	3,3'-Dichlorobenzidine			0.0029	O				
75-34-3	1,1-Dichloroethane (ethylidene dichloride)			0.63	O				
156-60-5	*trans*-1,2-dichloroethene		HI3					790	T

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
75-09-2	Dichloromethane (methylene chloride)		HI3	100	A	600	I	2,100	T
78-87-5	1,2-Dichloropropane (propylene dichloride)		HI3			4.0	I	230	T
542-75-6	1,3-Dichloropropene		HI3	0.25	A	32	T	36	Tint
62-73-7	Dichlorvos (DDVP)		HI5			0.54	T	18	T
60-57-1	Dieldrin			0.00022	I				
200[†]	Diesel particulate matter		HI3	0.10	A	5.0	O		
111-42-2	Diethanolamine		HI3			0.20	P		
112-34-5	Diethylene glycol monobutyl ether		HI3			0.10	P		
111-90-0	Diethylene glycol monoethyl ether		HI5			0.30	P		
75-37-6	1,1-Difluoroethane		HI5			40,000	I		
60-11-7	4-Dimethylaminoazobenzene			0.00077	O				
68-12-2	Dimethyl formamide		HI3			80	O		
57-14-7	1,1-Dimethylhydrazine		HI3					0.49	Tint
121-14-2	2,4-Dinitrotoluene			0.011	O				

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
123-91-1	1,4-Dioxane		HI3	0.20	I	30	I	7,200	T
122-66-7	1,2-Diphenylhydrazine (hydrazobenzene)			0.0045	I				
1937-37-7	Direct Black 38			7.1E-06	O				
2602-46-2	Direct Blue 6			7.1E-06	O				
16071-86-6	Direct Brown 95 (technica grade)			7.1E-06	O				
298-04-4	Disulfoton		HI3					6.0	T
106-89-8	Epichlorohydrin		HI3	0.043	O	3.0	O	1,300	O
106-88-7	1,2-Epoxybutane		HI5			20	O		
140-88-5	Ethyl acrylate		HI3			8.0	P		
100-41-4	Ethyl benzene		HI3	0.40	A	260	T	22,000	T
106-93-4	Ethylene dibromide (EDB, 1,2-dibromoethane)		HI3	0.0017	A	9.0	I		
107-06-2	Ethylene dichloride (EDC, 1,2-dichloroethane)		HI3	0.038	A	7.0	P		
107-21-1	Ethylene glycol		HI3			400	O	2,000	T
111-76-2	Ethylene glycol monobutyl ether		HI3			82	O	29,000	T

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
110-80-5	Ethylene glycol monoethyl ether		HI3			70	O	370	O
111-15-9	Ethylene glycol monoethyl ether acetate		HI3			60	P	140	O
109-86-4	Ethylene glycol monomethyl ether		HI3			60	O	93	O
110-49-6	Ethylene glycol monomethyl ether acetate		HI3			1.0	P		
75-21-8	Ethylene oxide		HI3	0.00033	A	30	O	160	Tint
96-45-7	Ethylene thiourea			0.077	O				
239[†]	Fluorides		HI3			13	A	240	O
7782-41-4	Fluorine gas		HI3					16	T
50-00-0	Formaldehyde		HI3	0.17	A	9.0	O	49	T
111-30-8	Glutaraldehyde		HI5			0.080	O	4.1	T
76-44-8	Heptachlor			0.00077	I				
1024-57-3	Heptachlor epoxide			0.00038	I				
118-74-1	Hexachlorobenzene			0.0020	O				
87-68-3	Hexachlorobutadiene			0.045	I				

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
608-73-1	Hexachlorocyclohexanes (mixture) including but not limited to:			0.00091	O				
319-84-6	Hexachlorocyclohexane, *alpha*-			0.00091	O				
319-85-7	Hexachlorocyclohexane, *beta*-			0.00091	O				
58-89-9	Hexachlorocyclohexane, *gamma*- (Lindane)			0.0032	O				
77-47-4	Hexachlorocyclopentadiene		HI3			0.20	I	110	Tint
67-72-1	Hexachloroethane		HI3			30	I	58,000	T
822-06-0	Hexamethylene-1,6-diisocyanate		HI5			0.069	T	0.21	Tint
110-54-3	Hexane		HI3			700	A		
302-01-2	Hydrazine		HI3	0.00020	O	0.030	P	5.2	Tint
7647-01-0	Hydrochloric acid		HI3			20	A	2,100	O
7664-39-3	Hydrogen fluoride		HI3			13	A	16	T
7783-06-4	Hydrogen sulfide		HI3			2.0	A	98	S
78-59-1	Isophorone		HI3			2,000	O		

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
67-63-0	Isopropyl alcohol		HI3			200	P	3,200	O
98-82-8	Isopropylbenzene (c umene)		HI3			400	I		
7439-92-1	Lead and compounds	o	HI3		A2	0.15	A	0.15	S
108-31-6	Maleic anhydride		HI5			0.70	O		
7439-96-5	Manganese and compounds	o	HI3			0.090	A	0.30	S
7439-97-6	Mercury and compounds	o	HI3			0.30	A	0.60	O
67-56-1	Methanol		HI3			4,000	A	28,000	O
101-14-4	4,4'-Methylene *bis*(2-chloroaniline) (MOCA)			0.0023	O				
101-77-9	4,4'-Methylenedianiline (and its dichloride)		HI5	0.0022	O	20	O		
101-68-8	Methylene diphenyl diisocyanate (MDI)		HI3			0.080	O	12	O
108-10-1	Methyl isobutyl ketone (MIBK, hexone)		HI3			3,000	I		
624-83-9	Methyl isocyanate		HI3			1.0	O		
80-62-6	Methyl methacrylate		HI5			700	I		

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
1634-04-4	Methyl *tert*-butyl ether		HI3	3.8	O	8,000	O	8,000	O
90-94-8	Michler's ketone			0.0040	O				
91-20-3	Naphthalene		HI3	0.029	A	3.7	T	200	S
365[†]	Nickel compounds, insoluble	f	HI3	0.0038	A	0.014	O	0.20	O
368[†]	Nickel compounds, soluble	f	HI3		A2	0.014	A	0.20	O
7697-37-2	Nitric acid		HI5					86	O
98-95-3	Nitrobenzene		HI3	0.025	I	9.0	I		
79-46-9	2-Nitropropane		HI3			20	I		
924-16-3	N-Nitrosodibutylamine			0.00032	O				
55-18-5	N-Nitrosodiethylamine			1.0E-04	O				
62-75-9	N-Nitrosodimethylamine			0.00022	O				
86-30-6	N-Nitrosodiphenylamine			0.38	O				
156-10-5	*p*-Nitrosodiphenylamine			0.16	O				
621-64-7	N-Nitrosodipropylamine			0.00050	O				
10595-95-6	N-Nitrosomethylethylamine			0.00016	O				

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
59-89-2	N-Nitrosomorpholine			0.00053	O				
100-75-4	N-Nitrosopiperidine			0.00037	O				
930-55-2	N-Nitrosopyrrolidine			0.0017	O				
8014-95-7	Oleum (fuming sulfuric acid)		HI3					120	O
56-38-2	Parathion		HI3					0.020	Tint
87-86-5	Pentachlorophenol			0.20	O				
108-95-2	Phenol		HI3			200	O	5,800	O
75-44-5	Phosgene		HI3			0.30	A	4.0	O
7803-51-2	Phosphine		HI3			0.80	A		
7664-38-2	Phosphoric acid		HI3			10	A		
12185-10-3	Phosphorus, white		HI3			9.0	A	20	T
85-44-9	Phthalic anhydride		HI3			20	O		
447[†]	Polybrominated diphenyl ethers (PBDEs)	g	HI3					6.0	Tint
1336-36-3	Polychlorinated biphenyls (PCBs)			0.010	A				

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
645[†]	Polychlorinated biphenyls (PCBs) TEQ	h	HI3	2.6E-08	A1	4.E-05	O		
32598-13-3	PCB 77 [3,3',4,4'-tetrachlorobiphenyl]	h	HI3	0.00026	A1	0.40	O		
70362-50-4	PCB 81 [3,4,4',5-tetrachlorobiphenyl]	h	HI3	8.8E-05	A1	0.13	O		
32598-14-4	PCB 105 [2,3,3',4,4'-pentachlorobiphenyl]	h	HI3	0.00088	A1	1.3	O		
74472-37-0	PCB 114 [2,3,4,4',5-pentachlorobiphenyl]	h	HI3	0.00088	A1	1.3	O		
31508-00-6	PCB 118 [2,3',4,4',5-pentachlorobiphenyl]	h	HI3	0.00088	A1	1.3	O		
65510-44-3	PCB 123 [2,3',4,4',5'-pentachlorobiphenyl]	h	HI3	0.00088	A1	1.3	O		
57465-28-8	PCB 126 [3,3',4,4',5-pentachlorobiphenyl]	h	HI3	2.6E-07	A1	0.00040	O		
38380-08-4	PCB 156 [2,3,3',4,4',5-hexachlorobiphenyl]	h	HI3	0.00088	A1	1.3	O		
69782-90-7	PCB 157 [2,3,3',4,4',5'-hexachlorobiphenyl]	h	HI3	0.00088	A1	1.3	O		
52663-72-6	PCB 167 [2,3',4,4',5,5'-hexachlorobiphenyl]	h	HI3	0.00088	A1	1.3	O		

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
32774-16-6	PCB 169 [3,3',4,4',5,5'-hexachlorobiphenyl]	h	HI3	8.8E-07	A1	0.0013	O		
39635-31-9	PCB 189 [2,3,3',4,4',5,5'-heptachlorobiphenyl]	h	HI3	0.00088	A1	1.3	O		
646[†]	Polychlorinated dibenzo-*p*-dioxins (PCDDs) & dibenzofurans (PCDFs) TEQ	h	HI3	2.6E-08	A1	4.0E-05	O		
1746-01-6	2,3,7,8-Tetrachlorodibenzo-*p*-dioxin (TCDD)		HI3	2.6E-08	A	4.0E-05	O		
40321-76-4	1,2,3,7,8-Pentachlorodibenzo-*p*-dioxin (PeCDD)	h	HI3	2.6E-08	A1	4.0E-05	O		
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-*p*-dioxin (HxCDD)	h	HI3	2.6E-07	A1	0.00040	O		
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-*p*-dioxin (HxCDD)	h	HI3	2.6E-07	A1	0.00040	O		
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-*p*-dioxin (HxCDD)	h	HI3	2.6E-07	A1	0.00040	O		

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin (HpCDD)	h	HI3	2.6E-06	A1	0.0040	O		
3268-87-9	Octachlorodibenzo-*p*-dioxin (OCDD)	h	HI3	8.8E-05	A1	0.13	O		
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran (TCDF)	h	HI3	2.6E-07	A1	0.00040	O		
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	h	HI3	8.8E-07	A1	0.0013	O		
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	h	HI3	8.8E-08	A1	0.00013	O		
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	h	HI3	2.6E-07	A1	0.00040	O		
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	h	HI3	2.6E-07	A1	0.00040	O		
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	h	HI3	2.6E-07	A1	0.00040	O		

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	h	HI3	2.6E-07	A1	0.00040	O		
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	h	HI3	2.6E-06	A1	0.0040	O		
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	h	HI3	2.6E-06	A1	0.0040	O		
39001-02-0	Octachlorodibenzofuran (OCDF)	h	HI3	8.8E-05	A1	0.13	O		
401[†]	Polycyclic aromatic hydrocarbons (PAHs)	q		0.0017	A				
191-26-4	Anthanthrene	i		0.0042	A1				
56-55-3	Benz[a]anthracene	i		0.0083	A1				
50-32-8	Benzo[a]pyrene	m	HI3	0.0017	A	0.0020	I	0.0020	I
205-99-2	Benzo[b]fluoranthene	i		0.0021	A1				
205-12-9	Benzo[c]fluorene	i		8.3E-05	A1				
191-24-2	Benzo[g,h,i]perylene	i		0.19	A1				
205-82-3	Benzo[j]fluoranthene	i		0.0056	A1				

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
207-08-9	Benzo[k]fluoranthene	i		0.056	A1				
218-01-9	Chrysene	i		0.017	A1				
27208-37-3	Cyclopenta[c,d]pyrene	i		0.0042	A1				
53-70-3	Dibenz[a,h]anthracene	i		0.00017	A1				
192-65-4	Dibenzo[a,e]pyrene	i		0.0042	A1				
189-64-0	Dibenzo[a,h]pyrene	i		0.0019	A1				
189-55-9	Dibenzo[a,i]pyrene	i		0.0028	A1				
191-30-0	Dibenzo[a,l]pyrene	i		5.6E-05	A1				
206-44-0	Fluoranthene	i		0.021	A1				
193-39-5	Indeno[1,2,3-cd]pyrene	i		0.024	A1				
3697-24-3	5-Methylchrysene	i		0.0017	A1				
7496-02-8	6-Nitrochrysene	i		0.00017	A1				
7758-01-2	Potassium bromate			0.0071	O				
1120-71-4	1,3-Propane sultone			0.0014	O				
123-38-6	Propionaldehyde		HI5			8.0	I		
115-07-1	Propylene		HI5			3,000	O		

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
6423-43-4	Propylene glycol dinitrate		HI5			0.27	T	20	T
107-98-2	Propylene glycol monomethyl ether		HI3			7,000	O		
75-56-9	Propylene oxide		HI3	0.27	O	30	O	3,100	O
572[†]	Refractory ceramic fibers	k	HI5			0.030	T		
7783-07-5	Selenide, hydrogen		HI3					5.0	O
7782-49-2	Selenium and compounds	j, o	HI3				A3	2.0	S
7631-86-9	Silica, crystalline (respirable)		HI5			3.0	O		
1310-73-2	Sodium hydroxide		HI3					8.0	O
100-42-5	Styrene		HI3			1,000	A	21,000	S
7664-93-9	Sulfuric acid		HI5			1.0	O	120	O
505-60-2	Sulfur mustard		HI3					0.70	T
7446-11-9	Sulfur trioxide		HI5			1.0	O	120	O
630-20-6	1,1,1,2-Tetrachloroethane			0.14	I				
79-34-5	1,1,2,2-Tetrachloroethane			0.017	O				
127-18-4	Tetrachloroethene (perchloroethylene)		HI3	3.8	A	41	T	41	T

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
811-97-2	1,1,1,2-Tetrafluoroethane		HI3			80,000	I		
62-55-5	Thioacetamide			0.00059	O				
7550-45-0	Titanium tetrachloride		HI3			0.10	T	10	Tint
108-88-3	Toluene		HI3			5,000	A	7,500	T
26471-62-5	Toluene diisocyanates (2,4- and 2,6-)		HI3	0.091	O	0.021	A	0.071	T
8001-35-2	Toxaphene (polychlorinated camphenes)			0.0031	I				
71-55-6	1,1,1-Trichloroethane (methyl chloroform)		HI3			5,000	A	11,000	T
79-00-5	1,1,2-Trichloroethane (vinyl trichloride)			0.063	O				
79-01-6	Trichloroethene (TCE, trichloroethylene)		HI3	0.24	A	2.1	T	2.1	Tint
88-06-2	2,4,6-Trichlorophenol			0.050	O				
96-18-4	1,2,3-Trichloropropane		HI5			0.30	I	1.8	T
121-44-8	Triethylamine		HI3			200	O	2,800	O
526-73-8	1,2,3-Trimethylbenzene		HI3			60	I		

OAR 340-247-8010
Table 2
Toxicity Reference Values

			Noncancer TBACT RAL [p]	Toxicity Reference Values (TRVs)					
				Chronic Cancer[a]		Chronic Noncancer[b]		Acute Noncancer[c]	
CASRN	Chemical	Notes		(µg/m³)	Notes	(µg/m³)	Notes	(µg/m³)	Notes
95-63-6	1,2,4-Trimethylbenzene		HI3			60	I		
108-67-8	1,3,5-Trimethylbenzene		HI3			60	I		
51-79-6	Urethane (ethyl carbamate)			0.0034	O				
7440-62-2	Vanadium (fume or dust)		HI3			0.10	T	0.80	T
1314-62-1	Vanadium pentoxide		HI3	0.00012	P	0.0070	P	30	O
108-05-4	Vinyl acetate	j	HI3			200	O	200	I
593-60-2	Vinyl bromide		HI5			3.0	I		
75-01-4	Vinyl chloride		HI3	0.11	I	100	I	1,300	T
75-35-4	Vinylidene chloride	j	HI3			200	I	200	I
1330-20-7	Xylene (mixture), including *m*-xylene, *o*-xylene, *p*-xylene		HI3			220	A	8,700	T

Footnotes for OAR 340-247-8010 Table 2:

† Chemical designated by DEQ ID number.

a) TRV based on a 1 in 1 million excess cancer risk.
TRV = $1x10^{-6}$ / IUR, where IUR = chemical-specific inhalation unit risk value [$(\mu g/m^3)^{-1}$].

b) TRV based on chronic noncancer value from authoritative sources ($\mu g/m^3$).

c) TRV based on acute or subchronic noncancer value from authoritative sources ($\mu g/m^3$).

d) The TRVs presented for chromium are applicable to hexavalent chromium.

e) DDT TRVs apply to the sum of DDT, DDE, and DDD compounds.

f) As recommended by the ATSAC in 2018, the two categories of nickel compounds contain the following specific nickel compounds:
Soluble nickel compounds are considered to be emitted mainly in aerosol form, to be less potent carcinogens than insoluble nickel compounds, and include nickel acetate, nickel chloride, nickel carbonate, nickel hydroxide, nickelocene, nickel sulfate, nickel sulfate hexahydrate, nickel nitrate hexahydrate, nickel carbonate hydroxide.
Insoluble nickel compounds are considered to be emitted mainly in particulate form, to be more potent carcinogens than soluble nickel compounds, and to include nickel subsulfide, nickel oxide, nickel sulfide, nickel metal.

g) TRVs apply to octabrominated diphenyl ethers (CASRN 32536-52-0) and pentabrominated diphenyl ethers (CASRN 32534-81-9), including BDE-99.

h) TRV for chronic cancer calculated by applying toxicity equivalency factor to 2,3,7,8-TCDD TRV.

i) TRV for chronic cancer calculated by applying toxicity equivalency factor to benzo[a]pyrene TRV.

j) If the short-term toxicity reference value is lower than the chronic noncancer toxicity reference value, the chronic noncancer toxicity reference value was used for the short-term toxicity reference value because chronic noncancer toxicity reference values are generally more reliable.

k) TRVs for asbestos and refractory ceramic fibers are in units of fibers/cm^3.

m) Because benzo[a]pyrene can cause developmental effects, the chronic noncancer TRV is also used as the acute noncancer TRV.

n) Chlorinated paraffins of average chain length of C12, approximately 60% chlorine by weight.

o) An inorganic chemical designated with "and compounds" indicates that the TRV applies to the sum of all forms of the chemical, expressed as the inorganic element.

p) Noncancer TBACT RAL = noncancer Toxics Best Available Control Technology Risk Action Level, OAR 340-245-8010, Table 1.

q) Cancer TRV for PAHs was developed using benzo[a]pyrene TRV.

Legend:

A = ATSAC, DEQ Air Toxics Science Advisory Committee, 2018.
A1 = ATSAC, 2018. TRV for cancer calculated by applying toxic equivalency factor.
A2 = Because the ATSAC decided it was inappropriate to develop an ABC based on carcinogenic effects, DEQ did not obtain a cancer TRV from the other authoritative sources.
A3 = Because the ATSAC decided it was inappropriate to develop an ABC based on noncarcinogenic effects, DEQ did not obtain a TRV from the other authoritative sources.
CASRN = Chemical Abstracts Service Registry Number, or DEQ ID if there is no CASRN.
I = IRIS, EPA integrated risk information system
O = OEHHA, California Environmental Protection Agency, Office of Environmental Health Hazard Assessment
P = PPRTV, EPA preliminary peer reviewed toxicity value
S = SGC, DEQ short-term guideline concentration
T = ATSDR, U.S. Agency for Toxic Substances and Disease Registry
TEQ = toxic equivalency, relative to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin.
Tint = ATSDR, intermediate minimal risk level
TRV = toxicity reference value