**DIVISION 226**

**GENERAL EMISSION STANDARDS**

[

**340-226-0010**

**Definitions**

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

(1) "Refuse" means unwanted matter.

(2) "Refuse burning equipment" means a device designed to reduce the volume of solid, liquid, or gaseous refuse by combustion.

[**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.]

[Publications: The publication referenced in this rule is available from the agency.]

Stat. Auth.: ORS 468 & ORS 468A  
Stats. Implemented: ORS 468.020 & ORS 468A.025  
Hist.: DEQ 16, f. 6-12-70, ef. 7-11-70; DEQ 1-1984, f. & ef. 1-16-84; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 3-1996, f. & cert. ef. 1-29-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-021-0005; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

**Highest and Best Practicable Treatment and Control**

**340-226-0100**

**Policy and Application**

(1) As specified in OAR 340-226-0110 through 340-226-0140 and sections (2) through (5), the highest and best practicable treatment and control of air contaminant emissions must in every case be provided so as to maintain overall air quality at the highest possible levels, and to maintain contaminant concentrations, visibility reduction, odors, soiling and other deleterious factors at the lowest possible levels. In the case of sources installed, constructed, or modified after June 1, 1970, particularly those located in areas with existing high air quality, the degree of treatment and control provided must be such that degradation of existing air quality is minimized to the greatest extent possible.

(2) A source is in compliance with section (1) if the source is in compliance with all other applicable emission standards and requirements contained in divisions 200 through 268.

(3) The EQC may adopt additional rules as necessary to ensure that the highest and best practicable treatment and control is provided as specified in section (1). Such rules may include, but are not limited to, requirements:

(a) Applicable to a source category, regulated pollutant or geographic area of the state;

(b) Necessary to protect public health and welfare for air contaminants that are not otherwise regulated by the EQC; or

(c) Necessary to address the cumulative impact of sources on air quality.

(4) The EQC encourages the owner or operator of a source to further reduce emissions from the source beyond applicable control requirements where feasible.

(5) Nothing in OAR 340-226-0100 through 340-226-0140 revokes or modifies any existing permit term or condition unless or until DEQ revokes or modifies the term or condition by a permit revision.

[**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.]

Stat. Auth.: ORS 468 & ORS 468A  
Stats. Implemented: ORS 468 & ORS 468A  
Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 12-1993, f. & cert. ef. 9-24-93; Renumbered from 340-020-0001; DEQ 19-1993, f. 11-4-93 & cert. ef. 1-1-94; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-028-0600; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

**340-226-0120**

**Operating and Maintenance Requirements**

(1) Operational, Maintenance and Work Practice Requirements:

(a) Where DEQ has determined that specific operational, maintenance, or work practice requirements are appropriate to ensure that the owner or operator of a source is operating and maintaining air pollution control devices and emission reduction processes at the highest reasonable efficiency and effectiveness to minimize emissions, DEQ will establish such requirements by permit condition or notice of construction approval;

(b) Operational, maintenance, and work practice requirements include:

(A) Flow rates, temperatures, pressure drop, ammonia slip, and other physical or chemical parameters related to the operation of air pollution control devices and emission reduction processes;

(B) Monitoring, record-keeping, testing, and sampling requirements and schedules;

(C) Maintenance requirements and schedules; and

(D) Requirements that components of air pollution control devices be functioning properly.

(2) Emission Action Levels:

(a) Where DEQ has determined that specific operational, maintenance, or work practice requirements considered or required under section (1) are insufficient to ensure that the owner or operator is operating and maintaining air pollution control devices and emission reduction processes at the highest reasonable efficiency and effectiveness, DEQ may establish, by permit or Notice of Construction approval, specific emission action levels in addition to applicable emission standards. An emission action level will be established that ensures an air pollution control device or emission reduction process is operated at the highest reasonable efficiency and effectiveness to minimize emissions;

(b) If emissions from a source equal or exceed the applicable emission action level, the owner or operator of the source must:

(A) Take corrective action as expeditiously as practical to reduce emissions to below the emission action level;

(B) Maintain records at the plant site for two years which document the exceedance, the cause of the exceedance, and the corrective action taken;

(C) Make such records available for inspection by DEQ during normal business hours; and

(D) Submit such records to DEQ upon request.

(c) DEQ will revise an emission action level if it finds that such level does not reflect the highest reasonable efficiency and effectiveness of air pollution control devices and emission reduction processes;

(d) An exceedance of an emission action level that is more stringent than an applicable emission standard is not a violation of such emission standard.

(3) In determining the highest reasonable efficiency and effectiveness for purposes of this rule, DEQ considers operational variability and the capability of air pollution control devices and emission reduction processes. If the performance of air pollution control devices and emission reduction processes during startup or shutdown differs from the performance under normal operating conditions, DEQ determines the highest reasonable efficiency and effectiveness separately for these operating modes.

[**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.]

Stat. Auth.: ORS 468 & ORS 468A  
Stats. Implemented: ORS 468 & ORS 468A  
Hist.: DEQ 19-1993, f. 11-4-93 & cert. ef. 1-1-94; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-028-0620; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

**340-226-0130**

**Typically Achievable Control Technology (TACT)**

For existing sources, the emission limit established will be typical of the emission level achieved by emissions units similar in type and size. For new and modified sources, the emission limit established will be typical of the emission level achieved by well controlled new or modified emissions units similar in type and size that were recently installed. TACT determinations will be based on information known to DEQ while considering pollution prevention, impacts on other environmental media, energy impacts, capital and operating costs, cost effectiveness, and the age and remaining economic life of existing emission control devices. DEQ may consider emission control technologies typically applied to other types of emissions units where such technologies could be readily applied to the emissions unit. If an emission limitation is not feasible, a design, equipment, work practice, operational standard, or combination thereof, may be required.

(1) Existing Sources. An existing emissions unit must meet TACT for existing sources if:

(a) The emissions unit is not already subject to emission standards for the regulated pollutant under OAR 340 division 224, OAR 340-232-0010 through 340-232-0240, OAR 340 divisions 230, 234, 236, or 238, OAR 340-240-0110 through 340-240-0180, 340-240-0310(1), or 340-240-0320 through 340-240-0430;

(b) The source is required to have a permit;

(c) The emissions unit has emissions of criteria pollutants equal to or greater than 5 tons per year of particulate or 10 tons per year of any gaseous pollutant; and

(d) DEQ determines that air pollution control devices and emission reduction processes in use for the emissions unit do not represent TACT, and that further emission control is necessary to address documented nuisance conditions, address an increase in emissions, ensure that the source is in compliance with other applicable requirements, or protect public health or welfare or the environment.

(2) New and Modified Sources. A new or modified emissions unit must meet TACT for new or modified sources if:

(a) The new or modified emissions unit is not subject to New Source Review requirements in OAR 340 division 224, an applicable Standard of Performance for New Stationary Sources in OAR 340 division 238, OAR 340-240-0110 through 340-240-0180, 340-240-0310(1), or 340-240-320 through 340-240-0430, or any other standard applicable only to new or modified sources in OAR 340 divisions 230, 234, 236, or 238 for the regulated pollutant emitted;

(b) The source is required to have a permit;

(c) The emissions unit:

(A) If new, would have emissions of any criteria pollutant equal to or greater than 1 ton per year in any area, or of PM10 equal to or greater than 500 pounds per year in a PM10 nonattainment area; or

(B) If modified, would have an increase in emissions from the permitted level for the emissions unit of any criteria pollutant equal to or greater than 1 ton per year in any area, or of PM10 equal to or greater than 500 pounds per year in a PM10 nonattainment area; and

(d) DEQ determines that the proposed air pollution control devices and emission reduction processes do not represent TACT.

(3) Before making a TACT determination, DEQ will notify the owner or operator of a source that it intends to make such a determination using information known to DEQ. The owner or operator of the source may supply DEQ with additional information by a reasonable date set by DEQ.

(4) The owner or operator of a source subject to TACT must submit, by a reasonable date established by DEQ, compliance plans and specifications for DEQ's approval. The owner or operator of the source must demonstrate compliance in accordance with a method and compliance schedule approved by DEQ.

[**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.]

Stat. Auth.: ORS 468 & ORS 468A  
Stats. Implemented: ORS 468.020 & ORS 468A.025  
Hist.: DEQ 19-1993, f. 11-4-93 & cert. ef. 1-1-94; DEQ 22-1996, f. & cert. ef. 10-22-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-028-0630; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

**340-226-0140**

**Additional Control Requirements for Stationary Sources of Air Contaminants**

In addition to other applicable requirements, DEQ may establish control requirements by permit if necessary as specified in sections (1) through (5):

(1) Requirements will be established to prevent violation of an Ambient Air Quality Standard caused or projected to be caused substantially by emissions from the source as determined by modeling, monitoring, or a combination thereof. For existing sources, DEQ will conduct monitoring to confirm a violation of an ambient air quality standard.

(2) Requirements will be established to prevent significant impairment of visibility in Class I areas caused or projected to be caused substantially by a source as determined by modeling, monitoring, or a combination thereof. For existing sources, DEQ will conduct monitoring to confirm visibility impairment.

(3) A requirement applicable to a major source will be established if it has been adopted by EPA but has not otherwise been adopted by the EQC.

(4) An additional control requirement will be established if requested by the owner or operator of a source.

(5) Requirements will be established if necessary to protect public health or welfare for the following air contaminants and sources not otherwise regulated under OAR 340 divisions 200 through 268:

(a) Chemical weapons; and

(b) Combustion and degradation by-products of chemical weapons.

[**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.]

Stat. Auth.: ORS 468 & ORS 468A  
Stats. Implemented: ORS 468 & ORS 468A  
Hist.: DEQ 19-1993, f. 11-4-93 & cert. ef. 1-1-94; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-028-0640; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01; DEQ 15-2001, f. & cert. ef. 12-26-01

**Grain Loading Standards**

**340-226-0210**

**Particulate Emission Limitations for Sources Other Than Fuel Burning, Refuse Burning Equipment and Fugitive Emissions**

(1) This rule does not apply to fugitive emissions sources, fuel burning equipment, refuse burning equipment, or to solid fuel burning devices certified under OAR 340-262-0500.

(2) No person may cause, suffer, allow, or permit particulate matter emission from any air contaminant source in excess of the following limits:

(a) For sources installed, constructed, or modified before June 1, 1970:

(A) If representative compliance source test data prior to [INSERT DATE OF EQC ADOPTION OF RULES] is less than or equal to 0.080 grains per dry standard cubic foot, then the limit is 0.10 grains per dry standard cubic foot ;

(B) If representative compliance source test data prior to [INSERT DATE OF EQC ADOPTION OF RULES] is greater than 0.080 grains per dry standard cubic foot, then the limit is:

(i) 0.2 grains per dry standard cubic foot prior to December 31, 2019; and

(ii) 0.15 grains per dry standard cubic foot on or after January 1, 2020; and

(C) For equipment or a mode of operation that is used less than 876 hours per calendar year, the limit is 0.20 grains per standard cubic foot on or after January 1, 2020.

(b) For sources installed, constructed, or modified on or after June 1, 1970 but prior to [INSERT DATE OF EQC ADOPTION OF RULES]:

(A) If representative compliance source test data prior to [INSERT DATE OF EQC ADOPTION OF RULES] is less than or equal to 0.080 grains per dry standard cubic foot, then the limit is 0.10 grains per dry standard cubic foot;

(B) If representative compliance source test data prior to [INSERT DATE OF EQC ADOPTION OF RULES] is greater than 0.080 grains per dry standard cubic foot, then the limit is:

(i) 0.1 grains per dry standard cubic foot prior to December 31, 2019; and

(ii) 0.14 grains per dry standard cubic foot on or after January 1, 2020.

(c) For sources installed, constructed or modified after [INSERT DATE OF EQC ADOPTION OF RULES], the limit is 0.10 grains per dry standard cubic foot.

(d) The owner or operator of a source installed, constructed or modified before [INSERT DATE OF EQC ADOPTION OF RULES] who is unable to comply with the compliance dates specified in subparagraphs (a)(B)(ii) and (b)(B)(ii) may request that DEQ grant an extension allowing the source up to one additional year to comply with the standard. The request for an extension must be submitted no later than October 1, 2019.

(3) Compliance with the emissions standards in section (2) is determined using:

(a) Oregon Method 5;

(b) DEQ Method 8, as approved by DEQ for sources with exhaust gases at or near ambient conditions;

(c) DEQ Method 7 for direct heat transfer sources; or

(d) An alternative method approved by DEQ.

(e) For purposes of this rule, representative source test data is data that is obtained when a source is operating and maintaining air pollution control devices and emission reduction processes at the highest reasonable efficiency and effectiveness to minimize emissions based on the current configuration of the emissions units and pollution control equipment.

[**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.]

Stat. Auth.: ORS 468 & ORS 468A  
Stats. Implemented: ORS 468.020 & ORS 468A.025.  
Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 3-1996, f. & cert. ef. 1-29-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-021-0030; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

**Particulate Emissions from Process Equipment**

**340-226-0310**

**Emission Standard**

No person may cause, suffer, allow, or permit the emissions of particulate matter in any one hour from any process in excess of the amount shown in OAR 340-226-8005, for the process weight rate allocated to such process.

[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.]

Stat. Auth.: ORS 468 & ORS 468A  
Stats. Implemented: ORS 468A.025  
Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-021-0040; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

**340-226-0320**

**Determination of Process Weight**

(1) Process weight is the total weight of all materials introduced into a piece of process equipment. Solid fuels charged are considered part of the process weight, but liquid and gaseous fuels and combustion air are not.

(a) For a cyclical or batch operation, the process weight per hour is derived by dividing the total process weight by the number of hours in one complete operation, excluding any time during which the equipment is idle.

(b) For a continuous operation, the process weight per hour is derived by dividing the process weight by a typical period of time, as approved by DEQ.

(2) Where the nature of any process or operation or the design of any equipment permits more than one interpretation of this rule, the interpretation that results in the minimum value for allowable emission applies.

[**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.]

Stat. Auth.: ORS 468 & ORS 468A  
Stats. Implemented: ORS 468.020 & ORS 468A.025.  
Hist.: DEQ 37, f. 2-15-72, ef. 3-1-72; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 3-1996, f. & cert. ef. 1-29-96; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-021-0045; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

**Alternative Emission Controls**

**340-226-0400**

**Alternative Emission Controls (Bubble)**

(1) DEQ may approve alternative emission controls for VOC and NOx emissions in a Standard ACDP or Oregon Title V Operating Permit for use within a single source such that a specific emission limit is exceeded, provided that:

(a) Such alternatives are not specifically prohibited by a rule or permit condition;

(b) Net total emissions for each regulated pollutant from all emissions units involved (i.e. “under the bubble”) are not increased above the PSEL;

(c) The owner or operator of the source demonstrates net air quality benefit under OAR 340-224-0520;

(d) No other air contaminants including malodorous, toxic or hazardous pollutants are substituted;

(e) BACT and LAER, where required by a previously issued permit pursuant to OAR 340 division 224 (NSR), OAR 340 division 238 (NSPS), and OAR 340 division 244 (NESHAP), where required, are not relaxed;

(f) Specific emission limits are established for each emissions unit involved (“under the bubble”) such that compliance with the PSEL can be readily determined;

(g) The owner or operator of the source applies for a permit modification and such modification is approved by DEQ; and

(h) The emissions unit that reduces its emissions achieves the reductions by reducing its allowable emission rate, and not by reducing production, throughput, or hours of operation.

(2) The permit will include a net emissions limit on total emissions from all emissions units involved (“under the bubble”).

(3) Alternative emission controls, in addition to those allowed in (1) above, may be approved by DEQ and EPA as a source specific SIP amendment.

[**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.]

Stat. Auth.: ORS 468 & ORS 468A  
Stats. Implemented: ORS 468 & ORS 468A  
Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 12-1993, f. & cert. ef. 9-24-93; Renumbered from 340-020-0315; DEQ 22-1995, f. & cert. ef. 10-6-95; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-028-1030; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

**340-226-8005**

**Particulate Matter Emissions Standards for Process Equipment**

|  | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Process  lbs/hr | Emissions  lbs/hr | Process  lbs/hr | Emissions  lbs/hr | Process  lbs/hr | Emissions  lbs/hr |  |
| 50 | 0.24 | 2300 | 4.44 | 7500 | 8.39 |  |
| 100 | 0.46 | 2400 | 4.55 | 8000 | 8.71 |  |
| 150 | 0.66 | 2500 | 4.64 | 8500 | 9.03 |  |
| 200 | 0.85 | 2600 | 4.74 | 9000 | 9.36 |  |
| 250 | 1.03 | 2700 | 4.84 | 9500 | 9.67 |  |
| 300 | 1.20 | 2800 | 4.92 | 10000 | 10.00 |  |
| 350 | 1.35 | 2900 | 5.02 | 11000 | 10.63 |  |
| 400 | 1.50 | 3000 | 5.10 | 12000 | 11.28 |  |
| 450 | 1.63 | 3100 | 5.18 | 13000 | 11.89 |  |
| 500 | 1.77 | 3200 | 5.27 | 14000 | 12.50 |  |
| 550 | 1.89 | 3300 | 5.36 | 15000 | 13.13 |  |
| 600 | 2.01 | 3400 | 5.44 | 16000 | 13.74 |  |
| 650 | 2.12 | 3500 | 5.52 | 17000 | 14.36 |  |
| 700 | 2.24 | 3600 | 5.61 | 18000 | 14.97 |  |
| 750 | 2.34 | 3700 | 5.69 | 19000 | 15.58 |  |
| 800 | 2.43 | 3800 | 5.77 | 20000 | 16.19 |  |
| 850 | 2.53 | 3900 | 5.85 | 30000 | 22.22 |  |
| 900 | 2.62 | 4000 | 5.93 | 40000 | 28.30 |  |
| 950 | 2.72 | 4100 | 6.01 | 50000 | 34.30 |  |
| 1000 | 2.80 | 4200 | 6.08 | 60000 | 40.00 |  |
| 1100 | 2.97 | 4300 | 6.15 | 70000 | 41.30 |  |
| 1200 | 3.12 | 4400 | 6.22 | 80000 | 42.50 |  |
| 1300 | 3.26 | 4500 | 6.30 | 90000 | 43.60 |  |
| 1400 | 3.40 | 4600 | 6.37 | 100000 | 44.60 |  |
| 1500 | 3.54 | 4700 | 6.45 | 120000 | 46.30 |  |
| 1600 | 3.66 | 4800 | 6.52 | 140000 | 47.80 |  |
| 1700 | 3.79 | 4900 | 6.60 | 160000 | 49.00 |  |
| 1800 | 3.91 | 5000 | 6.67 | 200000 | 51.20 |  |
| 1900 | 4.03 | 5500 | 7.03 | 1000000 | 69.00 |  |
| 2000 | 4.14 | 6000 | 7.37 | 2000000 | 77.60 |  |
| 2100 | 4.24 | 6500 | 7.71 | 6000000 | 92.70 |  |
| 2200 | 4.34 | 7000 | 8.05 |  |  |  |

Interpolation and extrapolation of the data for process unit weight rates in excess of 6,000,000 pounds/hour shall be accomplished by the use of the equation:

E = 55.0P0.11 - 40

where:  E = rate of process unit emission in pounds/hour, and

P = process weight in tons/hour

[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.]

Stat. Auth.: ORS 468 & ORS 468A  
Stats. Implemented: ORS 468A.025  
[See history of this table under OAR 340-226-0310.]