OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

GENERAL AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Air Quality Division
Air Operations Section
700 NE Multnomah Street, Suite 600
Portland, OR 97232
Telephone: (503) 229-5696

This permit is being issued in accordance with the provisions of ORS 468A.040 and OAR 340-216-0060.

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Signed copy on file with DEQ	2/17/2022
Ali Mirzakhalili, Air Quality Division Administrator	Dated

Prepared feeds manufacturing facilities[1] with 10,000 or more tons per year throughput that may use a material containing chromium or a material containing manganese subject to 40 C.F.R. part 63 subpart DDDDDDD;

and/or

Grain terminal elevators[2] or grain storage elevators[3] which commenced construction, reconstruction, or modification after August 3, 1978 subject to 40 C.F.R. part 60 subpart DD.

Equipment on site may also include:

Gas-fired[4] steam generating units (boilers) for which construction, modification, or reconstruction commenced after June 9, 1989 and that have a maximum design heat input capacity of 30 MMBtu/hr. (8.7 megawatts (MW)) or less, but greater than or equal to 10 MMBtu/hr. (2.9 MW) subject to 40 C.F.R. part 60 subpart Dc.

[1]Prepared feeds manufacturing facility means a facility that is primarily engaged in manufacturing animal feed. A facility is primarily engaged in manufacturing animal feed if the production of animal feed comprises greater than 50 percent of the total production of the facility on an annual basis. Facilities primarily engaged in raising or feeding animals are not prepared feed manufacturing facilities. Facilities engaged in the growing of agricultural crops that are used in the manufacturing of feed are not considered prepared feeds manufacturing facilities.

[2]Grain terminal elevator means any grain elevator which has a permanent storage capacity of more than 88,100 m^3 (ca. 2.5 million U.S. bushels), except those located at animal food manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock feedlots.

[3]Grain storage elevator means any grain elevator located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant which has a permanent grain storage capacity of 35,200 m^3 (ca. 1 million bushels).

[4]Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

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1.0 PERMIT ASSIGNMENT

1.1. Qualifications

The permittee must meet all of the following conditions in order to qualify for assignment to this General Air Contaminant Discharge Permit (ACDP):

a. The permittee is performing grain elevator or storage, or milling and feed operations as described on the cover page of this permit, including supporting activities;
b. Permittees that operate one or more steam generating units (boilers) are operating units that meet the criteria described on the cover page of this permit or are categorically insignificant activities as defined in OAR 340-200-0020;
c. A Simple or Standard ACDP is not required for the source; and
d. The source is not having ongoing, recurring, or serious compliance problems.

1.2. Assignment

DEQ will assign qualifying permittees to this permit that have and maintain a good record of compliance with DEQ's Air Quality regulations and that DEQ determines would be appropriately regulated by a General ACDP. DEQ may rescind assignment if the permittee no longer meets the qualifications in Condition 1.1 above, conditions of OAR 340-216-0060, or the Conditions of this permit.

1.3. Permitted Activities

Until this permit expires, is modified, or is revoked, the permittee is allowed to discharge air contaminants from processes and activities directly related to or associated with the air contaminant source(s) listed on the first page of this permit in addition to any categorically insignificant activities, as defined in OAR 340-200-0020, at the source. Discharge of air contaminants from any other equipment or activity not identified herein is not authorized by this permit.

1.4. Relation to Local Land Use Laws

This permit is not valid in Lane County, or at any location where the operation of the permittee's processes, activities, and insignificant activities would be in violation of any local land use or zoning laws. For operation in Lane County, contact Lane Regional Air Protection Agency for any necessary permits at (541) 736-1056. It is the permittee's responsibility to obtain local land use approvals as, or where, applicable before operating this facility at any location.

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1. Visible Emissions

The permittee must comply with the following visible emission limits:

a. Visible emissions must not equal or exceed 20% opacity;
b. The visible emissions limitation in this condition is based upon a six-minute block average of 24 consecutive observations recorded at 15-second intervals as specified in OAR 340-208-0110(2); and
c. The visible emission standard in this condition does not apply to fugitive emissions from the source.

2.2. Particulate Matter Emissions

Particulate matter emissions from any air contaminant source, other than fugitive emission sources, must not exceed 0.1 grain per dry standard cubic foot.

2.3. Fugitive Emissions

The permittee must comply with the following: [OAR 340-208-0210]

a. The permittee must take reasonable precautions to prevent particulate matter from becoming airborne from all site operations from which it may be generated. Such reasonable precautions include, but are not limited to:
    i. Controlling vehicle speeds on unpaved roads;
    ii. Application of water or other suitable chemicals on unpaved roads, material stockpiles, and other surfaces which can create airborne particulate;
    iii. Full or partial enclosure of material stockpiles in cases where application of water or other suitable chemicals are not sufficient to prevent particulate matter from becoming airborne;
    iv. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
    v. The prompt removal from paved street of earth or other material that may become airborne;
    vi. Alternative precautions approved by DEQ.
b. The permittee must not allow visible fugitive particulate emissions to leave the permittee’s property for a period or periods totaling more than 18 seconds in a six-minute period.
c. Compliance with the fugitive emissions standard in Condition 2.2b is determined by EPA Method 22 at the downwind property boundary.
d. If requested by DEQ, the permittee must develop and implement a fugitive emission control plan to prevent any visible emissions from leaving the property of a source for more than 18 seconds in a six-minute period as determined by EPA Method 22.

2.4. Particulate Matter Fallout

The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person.

2.5. Nuisance and Odors

The permittee must comply with the following nuisance and nuisance odor requirements, as applicable:

a. The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by DEQ personnel.
b. When operating in Clackamas, Columbia, Multnomah, and Washington Counties, control apparatus and equipment, using the highest and best practicable treatment currently available, must be installed and operated to reduce to a minimum odor-bearing gases or odor-bearing particulate matter emitted into the atmosphere.

2.6. Fuels and Fuel Sulfur Content

The permittee must not use any fuel other than natural gas, propane, butane, ASTM grade fuel oils, or on-specification used oil.

a. Fuel oils must not contain more than:
   0.3% sulfur by weight for ASTM Grade 1 distillate oil;
   0.5% sulfur by weight for ASTM Grade 2 distillate oil;
   1.75% sulfur by weight for residual oil;
b. The permittee is allowed to use on-specification used oil that contains no more than 0.5% sulfur by weight. The permittee must obtain analyses from the marketer or, if generated on site, have the used oil analyzed to demonstrate that each shipment or batch of oil does not exceed the used oil specifications contained in 40 CFR Part 279.11, Table 1.

2.7. Particulate Emissions

The permittee must comply with applicable grain loading standard particulate emission limits for non-fugitive emissions pursuant to OAR 340-226-0210.

3.0 NEW SOURCE PERFORMANCE STANDARDS FOR GRAIN STORAGE FACILITIES (SUBPART DD)

3.1. NSPS subpart DD Applicability

Federal New Source Performance Standards subpart DD (40 C.F.R. part 60 subpart DD) requirements apply to grain terminal elevators and grain storage elevators for which construction, modification, or reconstruction commenced after August 3, 1978 and that meet the criteria established in Condition 3.1a or 3.1b, respectively.

Subpart DD and Condition 3.0 are applicable to each truck unloading station, truck loading station, barge and ship unloading station, barge and ship loading station, railcar loading station, railcar unloading station, grain dryer, and all grain handling operations.

a. A grain terminal elevator is subject to NSPS DD if it has a permanent storage capacity of more than 88,100 m^3 (ca. 2.5 million U.S. bushels), except those located at animal food manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock

feedlots.

b. A grain storage elevator is subject to NSPS DD if it is located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant and has a permanent grain storage capacity of 35,200 m^3 (ca. 1 million bushels).
c. The following physical changes or changes in the method of operation are not by themselves considered a modification of any existing facility regarding applicability of NSPS DD or Condition 3.0: The addition of gravity loadout spouts to existing grain storage or grain transfer bins. The installation of automatic grain weighing scales. Replacement of motor and drive units driving existing grain handling equipment. The installation of permanent storage capacity with no increase in hourly grain handling capacity.

3.2. Subpart DD Opacity Limits for Grain Storage Facilities

The permittee must not exceed the following opacity limitations for the specified process, activity, or emissions point:

a. Column or rack dryers - 0%
b. Truck unloading, railcar unloading or loading - 5%
c. Truck loading - 10%
d. Barge or ship loading - 20%
e. Grain handling operations - 0%

3.3. Subpart DD Particulate Matter Limits for Grain Storage Facilities

Process emissions discharged into the atmosphere from any affected facility, except grain dryers, must not contain particulate matter that exceeds 0.01 grains per dry standard cubic foot (gr/dscf) as measured by EPA Method 5.

3.4. Subpart DD Standards for Barge or Ship Unloading

The permittee must comply with the following for barge or ship unloading stations:

a. The unloading leg must be enclosed from the top to the center line of the bottom pulley and ventilation to a control device shall be maintained on both sides of the leg and the grain receiving hopper; and
b. The total rate of air ventilated must be at least 32.1 actual cubic meters per cubic meter of grain handling capacity (40 ft3/Btu).

3.5. Subpart DD Initial Notifications

For new, modified or reconstructed grain processing facilities subject to New Source Performance Standards (NSPS) in 40 C.F.R. Part 60, subpart DD, an initial notification must be submitted to DEQ of the anticipated date construction is commenced, postmarked no later than 30 days after such date.

3.6. Subpart DD Startup Notifications

For new, modified or reconstructed grain processing facilities subject to the NSPS, a notification must be submitted to DEQ of the actual date of startup, postmarked within 15 days of such date.

3.7. Subpart DD Initial Performance Test

For new, modified or reconstructed grain processing facilities subject to the NSPS, the permittee must conduct an initial performance test as required in 40 C.F.R. 60.8, NSPS subpart DD, and Condition 7.1. The initial performance test must be completed no later than 180 days after the initial startup date of the affected facility.

3.8. Where to Send NSPS Notifications and Reports

All notifications and reports must be submitted to DEQ at the address provided in Condition 10.3.

3.9. Performance Testing

Upon request by DEQ, the permittee must conduct a performance test according to 40 C.F.R. §60.303, 40 C.F.R. §60.8, and the DEQ Source Sampling Manual.

4.0 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FROM PREPARED FEEDS MANUFACTURING (NESHAP DDDDDDD)

4.1. NESHAP DDDDDDD Applicability

Federal National Emission Standards for Hazardous Air Pollutants subpart DDDDDDD (40 C.F.R. part 63 subpart DDDDDDD) requirements and this Condition 4.0 apply to permittees that are primarily engaged in manufacturing animal feed and that use a material containing chromium, manganese, or both.

A facility is primarily engaged in manufacturing animal feed if the production of animal feed comprises greater than 50 percent of the total production of the facility on an annual basis. Facilities primarily engaged in raising or feeding animals are not prepared feed manufacturing facilities. Facilities engaged in the growing of agricultural crops that are used in the manufacturing of feed are not considered prepared feeds manufacturing facilities.

The part of the permittee's operations subject to this Condition 4.0 is the collection of all equipment and activities necessary to produce animal feed from the point in the process where a material containing chromium or a material containing manganese is added, to the point where the finished animal feed product leaves the facility. This includes, but is not limited to, areas where materials containing chromium and manganese are stored, areas where materials containing chromium and manganese are temporarily stored prior to addition to the feed at the mixer, mixing and grinding processes, pelleting and pellet cooling processes, packing and bagging processes, crumblers and screens, bulk loading operations, and all conveyors and other equipment that transfer the feed materials throughout the manufacturing facility.

The permittee is no longer subject to the NESHAP and this Condition 4.0 if the permittee stops using materials containing chromium and manganese.

4.2. Subpart DDDDDDD Definitions

Existing source means commenced construction or reconstruction of the facility on or before July 27, 2009.

Material containing chromium means a material that contains chromium (Cr) in amounts greater than or equal to 0.1 percent by weight.

Material containing manganese means a material that contains manganese (Mn) in amounts greater than or equal to 1.0 percent by weight.

New source means commenced construction or reconstruction of the facility after July 27, 2009.

4.3. Subpart DDDDDDD Compliance Dates

a. Existing source. If the facility is existing, the permittee must have achieved compliance with the applicable provisions of NESHAP DDDDDDD by no later than January 5, 2012.

b. New source. If the facility is new, the permittee must achieve compliance with the applicable provisions of NESHAP DDDDDDD and Condition 4.0 upon startup.

c. A permittee becomes subject to NESHAP DDDDDDD and Condition 4.0 when the permittee begins to use a material containing chromium or a material containing manganese. If the permittee becomes subject after the applicable compliance date in Condition 4.3a, the permittee must achieve compliance with the applicable provisions of NESHAP DDDDDDD by the date that the permittee begins using a material containing manganese or a material containing chromium.

d. If the **average daily feed production level** exceeds 50 tons per day for a calendar year for a facility not complying with the requirement to install and operate a cyclone to control emissions from pelleting operations, the permittee must comply with Condition 4.6 and all associated requirements by July 1 of the year following the one-year period.

    i. *Average daily feed production level* means the average amount of animal feed products produced each day over an annual period. The initial determination is based on the design rate for new sources. Subsequent average daily feed production levels are determined annually and are based on the amount of animal feed products produced in a calendar year divided by the number of days in which the production processes were in operation.

4.4. Subpart DDDDDDD Notifications

The permittee must submit the following notifications according to 40 C.F.R. part 63 subpart DDDDDDD, as applicable:

a. Initial Notification. If subject to NESHAP DDDDDDD and Condition 4.0, the permittee must submit an Initial Notification no later than 120 days after the permittee becomes subject to the NESHAP. The Initial Notification must include the following information:

    i. The name, address, phone number, and e-mail address of the owner and operator;
    ii. The address (physical location) of the affected source;
    iii. An identification of the relevant standard (i.e., the Prepared Feeds NESHAP); and
    iv. A brief description of the operation.

b. Notification of Compliance Status Sources. Permittees subject to NESHAP DDDDDDD and Condition 4.0 must submit a Notification of Compliance Status according to the following, as applicable:

i. Existing sources. Permittees operating an existing source must have submitted a Notification of Compliance Status in accordance with 40 CFR 63.9(h) on or before May 4, 2012;
ii. New source. Permittees operating a new affected source must submit a Notification of Compliance Status within 120 days of initial startup;
iii. Change in Operations. Permittees that own or operate a source that becomes an affected source after the applicable compliance dates in Condition 4.3, must submit a Notification of Compliance Status within 120 days of the date that the permittee commenced using materials containing manganese or chromium.

c. The Notification of Compliance Status required by Condition 4.4b must include the following information:
i. The permittee's company name and address;
ii. A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of the NESHAP;
iii. If the permittee owns or operates an affected source required by Condition 4.6 to install and operate a cyclone to control emissions from pelleting operations, the inlet flow rate, inlet velocity, pressure drop, or fan amperage range that constitutes proper operation of the cyclone determined in accordance with Condition 4.6.
iv. If the permittee owns or operates an affected source that is not subject to the requirement in Condition 4.6 to install and operate a cyclone to control emissions from pelleting operations because the permittee's initial average daily feed production level was 50 tons per day or less, documentation of the initial average daily feed production level determination.

d. Stopping use of chromium and manganese. Permittees that no longer use materials that contain manganese or chromium after January 5, 2010, must submit a Notification which includes the following information:
i. The permittee's company name, address, and permit number;
ii. A statement by a responsible official certifying that the facility no longer uses materials that contain chromium or manganese. This statement must also include an effective date on which the use of materials that contain chromium and manganese was terminated;
iii. The responsible official's name, title or relation to the permitted entity, phone number, e-mail address and signature; and
iv. The notification must be submitted within 120 days of the date on which materials containing manganese or chromium are no longer used.

4.5. Subpart DDDDDDD Management Practices

In all areas of the facility where materials containing chromium or manganese are stored, used, or handled, the permittee must comply with the following management practices to minimize excess dust at all times:

a. The permittee must use either an industrial vacuum system or manual sweeping to reduce the amount of dust;

b. At least once per month, the permittee must remove dust from walls, ledges, and equipment using low pressure air or by other means, and then sweep or vacuum the area;
c. The permittee must keep doors shut except during normal ingress and egress;
d. The permittee must maintain and operate all process equipment in accordance with manufacturer's specifications and in a manner to minimize dust creation;
e. The permittee must store any raw materials containing chromium or manganese in closed containers;
f. The mixer where materials containing chromium or manganese are added must be covered at all times when mixing is occurring, except when the materials are being added to the mixer. Materials containing chromium or manganese must be added to the mixer in a manner that minimizes emissions; and
g. For the bulk loading process where prepared feed products containing chromium or manganese are loaded into trucks or railcars, the permittee must use a device at the loadout end of each bulk loader to lessen fugitive emissions by reducing the distance between the loading arm and the truck or railcar.

4.6. Subpart DDDDDDD Emission Controls

For pelleting operations at prepared feeds manufacturing facilities with an average daily feed production level exceeding 50 tons per day (see Condition 4.3d.i), the permittee must capture emissions and route them to a cyclone designed to reduce emissions of particulate matter by 95 percent or greater. The permittee must also comply with the following provisions at all times:

a. The permittee must demonstrate that the cyclone is designed to reduce emissions of particulate matter by 95 percent or greater using manufacturer specifications, certification by a professional engineer or responsible official, or a performance test.
b. The permittee must establish an inlet flow rate, inlet velocity, pressure drop, or fan amperage range that represents proper operation of the cyclone in accordance with the following applicable requirement:
    i. If demonstrating the cyclone design efficiency using manufacturer specifications, the inlet flow rate, inlet velocity, pressure drop, or fan amperage range that represents proper operation of the cyclone must be provided by the manufacturer.
    ii. If demonstrating the cyclone design efficiency using certification by a professional engineer or responsible official, this certification must include calculations to establish an inlet flow rate, inlet velocity, pressure drop, or fan amperage range that represents proper operation of the cyclone.
    iii. If demonstrating the cyclone design efficiency using a performance test, the permittee must monitor the inlet flow rate, inlet velocity, pressure drop, or fan amperage during the test and establish a range that represents proper operation of the cyclone based on the data obtained during the test.
c. The permittee must maintain and operate the cyclone in accordance with manufacturer's specifications. If manufacturer's specifications are not available, the permittee must develop and follow standard maintenance and operating procedures that ensure proper operation of the cyclone.

5.0 OPERATION AND MAINTENANCE REQUIREMENTS

5.1. Monthly Inspections

The permittee must perform an inspection of the facility at least once each month to ensure that reasonable precautions are being taken to minimize fugitive emissions and that all pollution control equipment are working properly. The permittee must not operate air contaminant producing processes unless the pollution control equipment controlling the process are on and properly functioning.

5.2. Fugitive Emissions Control Plan

Permittees operating in the Medford-Ashland AQMA must prepare and implement site-specific plans for the control of fugitive emissions in accordance with OAR 340-240-0180 upon request by DEQ.

5.3. O&M Plan

Permittees operating in the Medford-Ashland AQMA must prepare and implement an operation and maintenance (O&M) plan in accordance with OAR 340-240-0190. See Condition 16.0, Table 2.

6.0 PLANT SITE EMISSION LIMITS

6.1. Plant Site Emission Limits (PSEL)

The permittee must not allow plant site emissions to exceed the following:

Pollutant	Limit	Units
PM	24	tons per year
PM10	14	
SO2	39	
NOx	39	
CO	99	
VOC	39	
Single HAP	9	
Combined HAP	24	

6.2. PM10 PSEL for Medford-Ashland AQMA

For sources operating in the Medford-Ashland AQMA, the permittee must not allow plant site emissions of PM10 to exceed the following:

Pollutant	Limit	Units
PM10	4.5	tons per year
	49	pounds per day

6.3. Annual Period

The annual plant site emissions limits apply to each 12-consecutive calendar month period.

7.0 COMPLIANCE DEMONSTRATION

7.1. NSPS subpart DD Performance Test

Permittees subject to NSPS subpart DD must conduct an initial stack test within 60 days of achieving the maximum production rate but not later than 180 days after initial startup to ensure that the grain loading and visible emissions limits in Conditions 3.2 and 3.3 are met. Dryer stacks are exempt.

a. EPA Methods 1-5 must be used to determine the particulate matter concentration and the volumetric flow rate of the effluent gas. Each test run must be at least 60 minutes in duration and the volume of gas sampled must be at least 60 dry standard cubic feet. For Method 5, the probe and filter holder must be operated without heaters.
b. A visible emissions observation test must be conducted in accordance with EPA Method 9 and 40 CFR §60.11(b) (3-hour observation period).

7.2. NESHAP subpart DDDDDDD Testing

a. If the permittee is demonstrating that the cyclone required by Condition 4.6 is designed to reduce emissions of particulate matter by 95 percent or greater by the performance test option, the permittee must conduct a test in accordance with Condition 7.2b and calculate the percent reduction in accordance with Condition 7.2c.
b. The permittee must use Method 5 in Appendix A to 40 CFR Part 60 to determine the particulate matter mass rate at the inlet and outlet of the cyclone. The permittee must conduct at least three runs at the cyclone inlet and three runs at the cyclone outlet. Each run must have a sampling time of at least 60 minutes and a sample volume of at least 0.85 dscm (30 dscf).
c. The permittee must calculate the percent particulate matter reduction using the following equation:

$$PM\ Red = \frac{(M\ INLET - M\ OUTLET)\ X\ 1OO}{M\ INLET}$$

where:
PM Red= particulate matter reduction, percent;
M INLET= mass of particulate matter at the inlet of the cyclone, dry basis, corrected to standard conditions, g/min;
M OUTLET = mass of particulate matter at the outlet of the cyclone, dry basis, corrected to standard conditions, g/min;

7.3. Monitoring Requirements

The permittee must monitor the operation and maintenance of the plant and associated air contaminant control devices as follows:

a. Maintain monthly records of the amount of materials processed for each activity listed in Condition 15.0;
b. Maintain monthly records of amount of fuel burned by type and sulfur content of fuel oils;
c. Maintain reports of the monthly plant inspections; and
d. Maintain a log of complaints received at the facility.

7.4. PSEL Compliance Monitoring

Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the following calculation for each pollutant: [Note: calculations are not required to be submitted unless requested by DEQ]

$$E = \Sigma(EF \times P)/2000$$

Where,

E = pollutant emissions (ton/yr.);
EF = pollutant emission factor (see Conditions 15.0);
P = process production for each activity (tons) or amounts of fuels burned in the boiler(s).

7.5. NESHAP subpart DDDDDDD Compliance Monitoring

a. Permittees required by Condition 4.5g to use a device at the loadout end of a bulk loader that reduces fugitive emissions from a bulk loading process must perform monthly inspections of each device to ensure it is in proper working condition.
b. Permittees required by Condition 4.6 to install and operate a cyclone to control emissions from pelleting operations must comply with the following inspection and monitoring requirements:
    i. The permittee must perform quarterly inspections of the cyclone for corrosion, erosion, or any other damage that could result in air in-leakage.
    ii. The permittee must monitor inlet flow rate, inlet velocity, pressure drop, or fan amperage at least once per day when the pelleting process is in operation.

7.6. Emission Factors

The permittee must use the default emission factors provided in Condition 15.0 for calculating pollutant emissions unless alternative emission factors are approved by DEQ. The permittee may request or DEQ may require using alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by DEQ.

7.7. Emission Factors for Control Devices

Permittees with add-on pollution control equipment may account for additional capture and control efficiency as follows:

a. The add-on pollution control device must be a baghouse or equivalent fabric filter system; and
b. The permittee must have hoods and vents installed sufficient to route emissions to the baghouse or filter system.

For activities with an add-on pollution control device baghouse or equivalent fabric filter system, the emission factors for the controlled activity are equal to 10% of the factors listed in Condition 15.1.

8.0 RECORKEEPING REQUIREMENTS

8.1. Monitoring Requirements

The permittee must monitor and maintain the following records related to the operation and maintenance of the plant and associated air contaminant control devices:

a. Amount of materials processed on a monthly basis by each activity listed in Condition 15.1;
b. Amount of each fuel burned in boilers;
c. Sulfur content of fuel oil from vendor certification;
d. If on-specification used oil is utilized, the permittee must obtain analyses from the marketer or, if generated on site, have the used oil analyzed, so that the permittee can demonstrate that each shipment or batch of oil does not exceed the used oil specifications contained in 40 CFR Part 279.11, Table 1; and
e. Results of monthly plant inspections.

8.2. NESHAP subpart DDDDDDD Recordkeeping

The permittee must maintain the following records in a form suitable and readily available for expeditious review. The permittee must keep each record for 5 years following the date of each recorded action.

a. The permittee must keep a copy of each notification that the permittee submitted to comply with the NESHAP in accordance with Condition 4.4, and all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted.
b. The permittee must keep a copy of each Annual Compliance Certification prepared in accordance with Condition 9.3.
c. For each device used to comply with the requirements in Condition 4.5g, the permittee must keep the records of all inspections including:
    i. The date, place, and time of each inspection;
    ii. Person performing the inspection; and
    iii. Results of the inspection, including the date, time, and duration of the corrective action period from the time the inspection indicated a problem to the time of the indication that the device was replaced or restored to operation.
d. For each cyclone used to comply with the requirements in Condition 4.6, the permittee must keep the inlet flow rate, inlet velocity, pressure drop, or fan amperage range that represents proper operation of the cyclone, the operation and maintenance procedures to ensure proper operation of the cyclone, and the following:
    i. If the permittee demonstrates that the cyclone is designed to reduce emission of particulate matter by 95 percent or greater by manufacturer's specifications, the permittee must keep information from the manufacturer regarding the design efficiency of the cyclone.
    ii. If the permittee demonstrates that the cyclone is designed to reduce emissions of particulate matter by 95 percent or greater by certification by a professional engineer, the permittee must keep the certification regarding the design efficiency of the cyclone, along with supporting information and calculations.

e. Records of all quarterly inspections including the date, place, and time of each inspection; person performing the inspection; and results of the inspection, including the date, time, and duration of the corrective action period from the time the inspection indicated a problem to the time of the indication that the cyclone was restored to proper operation.
f. Records of the daily inlet flow rate, inlet velocity, pressure drop, or fan amperage measurements, along with the date, time, and duration of the correction action period from the time the monitoring indicated a problem to the time of the indication that the cyclone was restored to proper operation.
g. Permittees that own or operate an affected source that is not subject to the requirement in Condition 4.6 to install and operate a cyclone (to control emissions from pelleting operations because the permittee's average daily feed production level is 50 tons per day or less), must keep records of feed production and days of operations that were used to make the determination of average daily feed production level.

8.3. Complaint Log

The permittee must maintain a log of all complaints received that specifically refer to air pollution, odor, or nuisance concerns associated with the permitted facility. The permittee must investigate the condition within 24 hours, if possible.
The log must include at least the following for each complaint or concern received:

a. The date the complaint was received;
b. The date and time the complaint states the condition was present;
c. A description of the complaint;
d. The location of the complainant or receptor relative to the plant site;
e. The status of plant operations and activities during the complaint's stated time of pollution or odor condition;
f. A description of the permittee's actions to investigate the validity of the complaint; and
g. A description of any actions taken in response to the complaint investigation.

8.4. Excess Emissions

The permittee must maintain records of excess emissions as defined in OAR 340-214-0300 through 340-214-0340 (recorded on occurrence). Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are greater than 20% opacity for 3 minutes or more in any 60-minute period.

8.5. Retention of Records

Unless otherwise specified, the permittee must retain all records for a period of at least five (5) years from the date of each report or record and make them available to DEQ upon request. Records must be retained onsite or otherwise readily available electronically for expeditious review during an on-site inspection.

9.0 REPORTING REQUIREMENTS

9.1. Excess Emissions

The permittee must notify DEQ by telephone or in person of any excess emissions which are of a nature that could endanger public health.

a. The permittee must provide such notice as soon as possible, but never more than one hour after becoming aware of the problem. Notice must be made to the regional office identified in Condition 10.3.
b. If the excess emissions occur during non-business hours, the permittee must notify DEQ by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.
c. The permittee must also submit follow-up reports when required by DEQ.

9.2. Annual Report

The permittee must submit to DEQ by February 15 of each year this permit is in effect, two (2) copies of the following information for the preceding calendar year:

a. Operating parameters:
    i. The amount of materials processed in tons for each activity identified in Condition 15.1;
    ii. The type and amount of fuels burned in boilers;
b. Records of all planned and unplanned excess emissions events.
c. Summary of complaints relating to air quality received by permittee during the year.
d. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.
e. List major maintenance performed on pollution control equipment.
f. List the current plant site contact. Provide name, title, phone number and email address.
g. All reports and certifications submitted to DEQ must accurately reflect the monitoring, record keeping and other documentation held or performed by the owner or operator.

9.3. NESHAP subpart DDDDDDD Annual Compliance Certification Report

Permittees subject to NESHAP DDDDDDD must submit, with the annual report required in Condition 9.2, an annual compliance certification report for the previous calendar year containing the following information:

a. The permittee's company name and address;
b. A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the report and a statement of whether the source has complied with all the relevant standards and other requirements of the NESHAP;
c. If the source was not in compliance, include a description of deviations from the applicable requirements, the time periods during which the deviations occurred, and the corrective actions taken;
d. Identification of all instances when the daily inlet flow rate, inlet velocity, pressure drop, or fan amperage was outside range that constitutes proper operation of the cyclone submitted as part of the permittee's Notification of Compliance Status. For these instances, include the time periods when this occurred and the corrective actions taken;

e. The permittee's average daily feed production level for the previous calendar year. This must include total production and days of operation; and
f. The permittee must modify, according to site specific production and activities during the previous calendar year, and include the following statement regarding applicability of Condition 4.6:
    i. This facility **[did or did not]** have a cyclone installed during operations that took place during the previous calendar year. This facility **[did or did not]** have over 50 tons per day average feed production during the previous calendar year and **[is or is not]** subject to the requirements of Condition 4.6 to install a cyclone.
    ii. Permittees that are installing, removing, or otherwise changing operations on site related to a cyclone must submit a Notice of Intent to Construct according to Condition 9.6.

9.4. Initial Startup Notice
The permittee must notify DEQ in writing of the date a new facility is started up. The notification must be submitted no later than seven (7) days after startup.

9.5. Notice of Change of Ownership or Company Name
The permittee must notify DEQ in writing using a DEQ "Transfer Application Form" within 60 days after any of the following:
a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or
b. Sale or exchange of the activity or facility.

9.6. Construction or Modification Notices
The permittee must notify DEQ in writing using a DEQ "Notice of Intent to Construction Form," or other permit application form, and obtain approval in accordance with OAR 340-210-0205 through 340- 210-0250 before:
a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;
b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or
c. Constructing or modifying any pollution control equipment.

9.7. Where to Send Reports and Notices
Reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the region where the source is located as identified in Condition 10.3, unless otherwise specified.

10.0 ADMINISTRATIVE REQUIREMENTS

10.1. Employee Commute Options Program

Sources located inside the Portland Air Quality Maintenance Area (AQMA) with more than 100 employees at a work site must comply with the Employee Commute Options Program requirements located in OAR 340-242-0020 through 340-242-0390.
For forms (Fact Sheet, Registration, or Survey Guidance documents) or questions regarding ECO, please contact the ECO program directly at 503-229-6154 or ECO@deq.state.or.us.
Additional information is available from DEQ's website for the ECO program located here:
https://www.oregon.gov/deq/aq/programs/Pages/ECO.aspx

10.2. Reassignment to the General ACDP

A permittee that wishes to continue assignment to this General ACDP must submit to DEQ an application for reassignment as follows:

a. The application must be received by DEQ within 30 days prior to the expiration date listed on this permit;
b. The application must be sent to the appropriate regional office identified in Condition 10.3; and
c. The permittee may submit an application for either a Simple or Standard ACDP at any time, but the permittee must continue to comply with the General ACDP until DEQ takes final action on the Simple or Standard ACDP application.

10.3. Permit Coordinator Addresses

All reports, notices, and applications must be directed to the Permit Coordinator for the area where the source is located unless otherwise specified. Please ask for the air quality permit coordinator when calling the general office numbers listed below. The Permit Coordinator addresses are as follows:

Counties	Permit Coordinator Address and Telephone
Statewide	Once DEQ's online portal Environmental Data Management System, 'Your DEQ Online' is available for this permit, the permittee will be directed to submit any reports, notices, applications, or fees required by this permit within the online system or through the addresses and information provided at that time. Until the online portal is available for this permit, the permittee must use the addresses and information identified below.
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 700 NE Multnomah St., Suite 600 Portland, OR 97232-4100 Telephone: (503) 229-5696 NWRaqPermits@deq.state.or.us

Counties	Permit Coordinator Address and Telephone
Benton, Coos, Curry, Douglas, Jackson, Josephine, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Western Region 4026 Fairview Industrial Drive Salem, OR 97302 Telephone: (503) 378-8240 WRaqPermits@deq.state.or.us
Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler	Department of Environmental Quality Eastern Region 475 NE Bellevue, Suite 110 Bend, OR 97701 Telephone: (541) 388-6146 ERaqPermits@deq.state.or.us

10.4. DEQ Contacts

Information about air quality permits and DEQ's regulations may be obtained from the DEQ web page: http://www.oregon.gov/DEQ/AQ/. All inquiries about this permit should be directed to the regional office for the area where the source is located. DEQ's regional offices are as follows:

Counties	Office Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 700 NE Multnomah St., Suite 600 Portland, OR 97232 Telephone: (503) 229-5696
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 4026 Fairview Industrial Drive Salem, OR 97302 Telephone: (503) 378-8240
Coos, Curry, and Western Douglas	Department of Environmental Quality Coos Bay Office 381 N Second Street Coos Bay, OR 97420 Telephone: (541) 269-2721
Eastern Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 221 Stewart Avenue, Suite 201 Medford, OR 97501 Telephone: (541) 776-6010
Crook, Deschutes, Harney, Hood River, Jefferson, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office 475 NE Bellevue, Suite 110 Bend, OR 97701 Telephone: (541) 388-6146

Counties	Office Address and Telephone
Baker, Gilliam, Grant, Malheur, Morrow, Umatilla, Union, and Wallowa	Department of Environmental Quality Pendleton Office 800 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801 Telephone: (541) 276-4063
Klamath and Lake	Department of Environmental Quality Klamath Falls Office 803 Main Street, Suite 201 Klamath Falls, OR 97604 Telephone: (541) 273-7002

11.0 FEES

11.1. Annual Compliance Fee

The annual fees specified in OAR 340-216-8020, Table 2, are due on or by **December 1** of each year this permit is in effect. Invoices indicating the amount, as determined by DEQ regulations, will be mailed prior to the above date. **Late fees in accordance with Part 5 of the table will be assessed as appropriate.**

11.2. Change of Ownership or Company Name Fee

The Non-Technical Permit Modification specific activity fee specified in OAR 340-216-8020, Table 2, Part 4 is due with an application for changing the ownership or the name of the company of a source assigned to this permit. Forms that require fees must be sent together to the address in Condition 11.3.

11.3. Where to Submit Fees

Fees, with a permit number prominently displayed, must be submitted to:

Department of Environmental Quality
Financial Services – Revenue Section
700 NE Multnomah St. Suite 600
Portland, OR 97232-4100

12.0 GENERAL CONDITIONS AND DISCLAIMERS

12.1. Other Regulations

In addition to the specific requirements listed in this permit, the permittee must comply with all other applicable legal requirements enforceable by DEQ.

12.2. Conflicting Conditions

In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.

12.3. Masking of Emissions

The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.

12.4. DEQ Access
The permittee must allow DEQ's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468.095.
12.5. Permit Availability
The permittee must have a copy of the permit available at the facility at all times.
12.6. Open Burning
The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
12.7. Asbestos
The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.
12.8. Property Rights
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
12.9. Termination, Revocation, Rescission, or Modification
DEQ may modify or revoke this permit as authorized under OAR chapter 340, division 216.

13.0 NEW SOURCE PERFORMANCE STANDARDS FOR BOILERS (NSPS SUBPART DC)

13.1. NSPS subpart Dc - Standards of Performance for Boilers - Applicability
Federal New Source Performance Standards (NSPS) subpart Dc requirements apply to boilers for which construction, modification, or reconstruction commenced after June 9, 1989 and that have a maximum design heat input capacity between 10 million Btu/hr. (MMBtu/hr.) and 100 MMBtu /hour. For purposes of this permit, these Conditions apply to boilers meeting this NSPS criteria, and the criteria on the cover page of this permit, and the qualifications of Condition 1.1.

If applicable to one or more boilers at the source, the permittee must comply with these Conditions in addition to all other applicable requirements. The full text of the federal standards is found in 40 C.F.R. 60, subpart Dc.

13.2. Definitions
Construction means fabrication, erection, or installation of an affected facility (boiler).
Modification means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.
Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (see §60.17), diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (see §60.17), kerosine, as defined by the American Society of Testing and Materials in ASTM D3699 (see §60.17), biodiesel as defined by the American Society of Testing and

Materials in ASTM D6751 (see §60.17), or biodiesel blends as defined by the American Society of Testing and Materials in ASTM D7467 (see §60.17).
Natural gas means (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or (2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (§60.17); or (3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).
Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (see §60.17)

13.3. Natural Gas Fired Boilers and Backup Fuels

There are no applicable emission standards for boilers that are fired exclusively with natural gas. For such units the permittee must comply with NSPS subpart Dc fuel monitoring and recordkeeping requirements.
The permittee must only operate boilers that burn gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel must not exceed a combined total of 48 hours during any calendar year.

13.4. Subpart Dc Applicability of Standards

a. The fuel oil sulfur limits of subpart Dc apply at all times, including periods of startup, shutdown, and malfunction.
b. The opacity standards of subpart Dc apply at all times, except during periods of startup, shutdown, and malfunction.

13.5. Subpart Dc Fuel Oil Sulfur Limit and Compliance Monitoring

The sulfur content of fuel oil burned in a boiler subject to subpart Dc must not exceed 0.5% by weight. The permittee must demonstrate compliance with this limitation by using fuel supplier certification of the sulfur content. Fuel supplier certifications must be obtained and retained with each fuel shipment received.

13.6. Subpart Dc Recordkeeping and Reporting Requirements

The permittee must monitor and keep the following subpart Dc related records and submit reports:

a. Record and maintain records of the amount of each fuel combusted in each subject boiler either
    i. During each operating day; or
    ii. During each calendar month.
b. Record and maintain records of the hours of operation in which each subject boiler was burning liquid fuels. For each boiler this must include each date (mm/dd/yyyy) as well as the start and end time during which liquid fuels were burned.

c. **Boilers with back-up liquid fuel must submit semiannual reports.**
   i. Semiannual report periods are the periods January 1 – June 30 and July 1 - December 31st.
   ii. Each semiannual report for the first period (1/1 – 6/30) must be postmarked by July 30th. The semiannual report for the second period (7/1 – 12/31) is due each January 30th but may be submitted with the permittee's regular annual report submittal (Condition 9.2), due February 15th.
   iii. Semiannual reports must include information for each NSPS subpart Dc-subject boiler that burned liquid fuel during the reporting period.

d. **Semiannual Report Requirements.** Permittees subject to the semiannual reporting of Condition 13.6c must retain the following records and include them with each semiannual report:
   i. The calendar dates covered in the reporting period (January 1 through June 30 or July 1 through December 31);
   ii. Records of all fuel supplier certifications.
   iii. A certified statement signed by the permittee that the records of fuel supplier certifications submitted represent all the fuel combusted during the reporting period.

e. **Fuel Supplier Certification records** must include the following:
   i. For distillate oil:
      A. The name of the oil supplier; and
      B. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR §60.4lc;
      C. The sulfur content or maximum sulfur content of the oil.
   ii. For residual oil:
      A. The name of the oil supplier;
      B. The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;
      C. The sulfur content of the oil from which the shipment came (or of the shipment itself); and
      D. The method used to determine the sulfur content of the oil.

13.7. Subpart Dc Record Retention

The permittee must maintain subpart Dc required records onsite, for a period of at least five (5) years.

13.8. NSPS subpart Dc Initial Notifications

For new, modified or reconstructed boilers subject to New Source Performance Standards (NSPS) in 40 CFR Part 60, subparts Dc, notification must be submitted to DEQ of the anticipated date construction is commenced, postmarked no later than 30 days after such date. The notification must include the following:

a. The design heat input capacity of the boilers and identification of fuels to be combusted.
b. The annual capacity at which the permittee anticipates operating the boilers based on all fuels combusted and based on each individual fuel combusted.

13.9. NSPS subpart Dc Startup Notifications
For new, modified or reconstructed boilers subject to the NSPS, notification must be submitted to DEQ and the EPA Administrator of the actual date of startup, postmarked within 15 days of such date.

13.10. NSPS subpart Dc Initial Performance Test
For new, modified or reconstructed boilers subject to the NSPS, the permittee must conduct an initial performance test as required in 40 CFR 60.8 and the applicable NSPS subpart. The initial performance test shall be completed no later than 180 days after the date of initial startup of the affected facility.

13.11. Where to Send NSPS Notifications and Reports
All notifications and quarterly reports must be submitted to DEQ at the address provided in Condition 9.3.

14.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit
ASTM	American Society for Testing and Materials
AQMA	Air Quality Maintenance Area
calendar year	The 12-month period beginning January 1st and ending December 31st
CAO	Cleaner Air Oregon
CFR	Code of Federal Regulations
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act
Gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
lb	pound(s)
MMBtu	million British thermal units
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
$PM_{2.5}$	particulate matter less than 2.5 microns in size
ppm	part per million
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
Scf	standard cubic foot
SER	Significant Emission Rate
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

15.0 TABLE 1: EMISSION FACTORS

15.1. Prepared Feeds Emission Factors

Activity	Emission Factor	
	PM (lb/ton)	PM10 (lb/ton)
Grain Receiving	0.017	0.0025
Grain Cleaning:		
No Control	0.5	0.125
Cyclone	0.075	0.0187
Grain Milling:		
Hammermill - Cyclone	0.067	0.033
Hammermill - Baghouse	0.012	0.012
Rollermill (wheat) No Control	70	35
Flaker - No Control	1	0.5
Flaker - Cyclone	0.15	0.075
Grain Cracker - No Control	0.16	0.08
Grain Cracker - Cyclone	0.024	0.012
Pelletizing:		
No Control	2.4	1.2
Cyclone	0.36	0.18
High Efficiency Cyclone	0.15	0.075
Bulk Shipping	0.0033	0.0008

15.2. Fuel Burning Emission Factors

Pollutant	Emission factors by fuel type		
	#1&2 oil ($lb/10^3$ gal)	**#3, 4, 5&6 oil ($lb/10^3$ gal)**	**natural gas/ propane ($lb/10^6$ ft3)**
PM	3.3	11.5	2.5
PM10	2.3	8.2	2.5
SO2	142S[1]	157S[1]	1.7
NOx	20	55	100
CO	5	5	84
VOC	0.2	0.28	5.5

[1]Calculate emission factor based on sulfur content of fuel. For example, if the fuel contains 0.5% sulfur by weight, the factor would be 142x0.5 = 71 lb/1000 gallons of oil for #2 fuel oil.

16.0 TABLE 2: OPERATION & MAINTENANCE PLANS

Operations & Maintenance Plans required pursuant to OAR 340-240-0190 or Condition 5.3:

The purpose of the plan must be to:	Reduce the number of upsets and breakdowns in particulate control equipment.
	Reduce the duration of upsets and downtimes.
	Improve the efficiency of control equipment during normal operations.
The plans must consider and include, but is not limited to:	Personnel training in operation and maintenance.
	Preventative maintenance procedures, schedule and records.
	Logging of the occurrence and duration of all upsets, breakdowns and malfunctions which result in excessive emissions.
	Routine follow-up evaluation of upsets to identify the cause of the problem and changes needed to prevent a recurrence.
	Inspection of internal wear points of pollution control equipment during scheduled shutdowns.
	Inventory of key spare parts.

db/ka/msf: 08/30/01:
gg/wk/jce: 07/15/11;
drd: 6/25/21;

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