OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

STANDARD

AIR CONTAMINANT DISCHARGE PERMIT

Eastern Region
475 NE Bellevue Dr., Suite 110
Bend, OR 97701

This permit is being issued in accordance with the provisions of ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Calico Resources USA Corp.
665 Anderson Street
Winnemuca, NV 89445

PLANT SITE LOCATION:

Grassy Mountain Mine
T21S R44E
Malheur County, OR

INFORMATION RELIED UPON:

Application No.: 35224
Date Received: 9/28/2023

LAND USE COMPATIBILITY FINDING:

Approving Authority: Malheur County
Approval Date: 8/6/2021

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

_____ _____
Ania Loyd, Eastern Region Air Quality Manager Date

Source(s) Permitted to Discharge Air Contaminants (OAR 340-216-8010):

Table 1 Code	Source Description	SIC/NAICS
Part B, 68	Primary smelting and/or refining of ferrous and non-ferrous metals	1041/ 212220

TABLE OF CONTENTS

1.0 DEVICE, PROCESS AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION

The devices, processes and pollution control devices regulated by this permit are the following:

Devices and Processes Description	Device ID	Pollution Control Device Description	PCD ID
Ore Crushing	OC1 – OC13	None	NA
Borrow Crushing	BC1 – BC10	None	NA
Cement Plant	CEM1 – CEM5	None	NA
Lime Storage/Slaker	LS1, LS2	None	NA
Electrowinning Cells and Pregnant Solution Tank	EW	Carbon Filter	CF3
Mercury Retort	MR	Condenser/Carbon Filter	CD1/CF3
Melting Furnace	MF	Baghouse/Carbon Filter	BH1/CF2
Carbon Reactivation Kiln	CKD	Venturi scrubber/Carbon Filter	VS1/CF1
Tailings Management Facility	TMF	None	NA
Fuel Tanks	TANKS	None	NA
Building HVAC	HA, HPO, HL, HWW, HMO, HTW	None	NA
Emergency Engines	EDG1, EDFP	None	NA
Analytical Laboratory	LAB	None	NA

2.0 GENERAL EMISSION STANDARDS AND LIMITS

2.1 Visible Emissions

a. Visible emissions from all devices and processes, other than fugitive emission sources, must not equal or exceed 20% opacity. Opacity must be measured as a six-minute block average using EPA Method 9 or an alternative monitoring method approved by DEQ that is equivalent to EPA Method 9. [OAR 340-208-0110(1), (2), and (3)(a)]

b. Visible fugitive emissions from above ground crushers, screens, bucket elevators, conveyor belt transfer points, storage bins and enclosed storage areas must not exceed 10% opacity. [40 CFR 60.382(b), 60.380(a)]

2.2 Fugitive Emissions

The permittee must not allow or permit any materials to be handled, transported or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne. [OAR 340-208-0210]

a. At least weekly, the permittee must conduct a six (6) minute visible emission survey of the property boundary downwind from the fugitive emissions sources using EPA Method 22. For purposes of this survey, excessive fugitive emissions are considered to be any visible emissions that leave the plant site boundaries. [OAR 340-208-0210]
   i. If visible fugitive emissions are detected at the property boundary for more than 5% (18 seconds) of the survey time, the permittee must take corrective action which includes the following:
      A. Using, where possible, water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
      B. Applying water or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;
      C. Enclosing (full or partial) materials stockpiles in cases where application of water or other suitable chemicals are not sufficient to prevent particulate matter, including dust, from becoming airborne;
      D. Installing and using hoods, fans and fabric filters to enclose and vent the handling of dusty materials;
      E. Installing adequate containment during sandblasting or other similar operations;
      F. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; and
      G. Promptly removing earth or other material that does or may become airborne from paved streets.
   ii. If no visible fugitive emissions are detected at the property boundary or visible fugitive emissions are detected for less than or equal to 5% (18 seconds) of the survey time, the permittee may conduct visible emission surveys monthly rather than weekly. If visible fugitive emissions are detected at the property boundary during the monthly surveys, the surveys must be conducted weekly.
   iii. The permittee must record the results of the EPA Method 22 tests and the corrective action taken in a log.
b. If requested by DEQ, the permittee must:
   i. Prepare and submit a fugitive emission control plan within 60 days of the request;
   ii. Implement the DEQ approved plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period; and
   iii. Keep the plan on site and make the plan available upon request. [OAR 340-208-0210]

2.3 Particulate Matter Fallout

The permittee must not cause or permit the deposition 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. [OAR 340-208-0450]

2.4 Nuisance and Odors

The permittee must not cause or allow the emission of odorous or other fugitive emissions so as to create nuisance conditions off the permittee's property. Nuisance conditions will be verified by DEQ personnel. [OAR 340-208-0300]

2.5 Complaint Log

The permittee must maintain a log of all complaints received by the permittee in person, in writing, by telephone or through other means that specifically refer to air pollution, odor or nuisance concerns associated with the permitted facility. Documentation must include: [OAR 340-214-0114]

a. The date the complaint was received;
b. The date and time the complaint states the condition was present;
c. A description of the pollution or odor condition;
d. The location of the complainant/receptor relative to the plant site;
e. The status of plant operation or activities during the complaint's stated time of pollution or odor condition; and
f. A record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

2.6 Fuels and Fuel Sulfur Content

a. The permittee must not use any fuels other than gasoline, propane or ultra-low sulfur diesel (ULSD) with a sulfur content not exceeding 0.0015% sulfur by weight for nonroad diesel fuel.
b. Only propane must be burned in the boilers.

3.0 SPECIFIC PERFORMANCE AND EMISSION STANDARDS

3.1 General Provisions

The permittee must comply with the applicable General Provisions to the NSPS and NESHAP regulations as noted at the end of this permit

3.2 Particulate Matter Emissions

The permittee must comply with the following particulate matter emission limits, as applicable:

a. Particulate emissions in excess of 0.10 grains per dry standard cubic foot (gr/dscf) are not allowed from the stacks or vents of the melting furnace (MF), carbon deactivation kiln (CKD), emergency generator (EDG1), emergency fire pump (EDFP), lime storage silo (LS1), cement silo (CEM1) and cement weigh hopper (CEM4). [OAR 340-226-0210(2)(c)]
b. Particulate emissions in excess of 0.05 grams per dry standard cubic meter (g/dscm) are not allowed from the stack of the mercury retort (MR). [40 CFR 60.382(a)(1)] Opacity from the mercury retort cannot exceed 7% opacity. [40 CFR 60.382(a)(2)]
c. Particulate emissions in excess of 0.10 grains per dry standard cubic foot (gr/dscf), corrected to 50% excess air are not allowed from the boilers (HA, HPO, HL, HWW, HTW, HMO). [OAR 340-228-0210(2)(c), (3)(b)]

3.3 Mercury Emissions

The permittee must emit no more than 0.8 pounds of mercury per ton of concentrate processed at all times. [40 CFR 63.11645(f)] Since the facility utilizes a carbon process with mercury retorts, the mercury standard applies to emissions from the carbon reactivation kiln (CKD), the combined preg tanks, electrowinning cell (EW) and mercury retort (MR) exhaust, and the melting furnace (MF). [40 CFR 63.11651]

3.4 Gasoline Dispensing Facilities (TG1)

a. The permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to the following: [OAR 340-244-0238, -0241]
   i. Minimize gasoline spills;
   ii. Clean up spills as expeditiously as practicable;
   iii. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
   iv. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
b. Gasoline must be loaded into the gas storage tank (TG1) by utilizing a submerged pipe whose discharge is no more than filling no more than 6 inches from the bottom of the storage tank, unless the permittee can document that the liquid level of the tank is always above the entire opening of the fill pipe. [OAR 340-244-0245(2)(b)].
c. Install a Stage I dual-point vapor balance system on TG1. [OAR 340-244-0241(2)]
d. Do not top off or overfill vehicle tanks. [OAR 340-244-0237(1)]
e. Post a sign at the gasoline dispensing facility instructing a person filling up a motor vehicle to not top off the vehicle tank.

3.5 Emergency Generator (EDG1) and Fire Pump (EDFP)

a. The Emergency Generator (EDG1) must meet Tier 2 emission standards of 40 CFR 1039, Appendix I. [40 CFR 60.4205(b)]

b. The fire pump (EDFP) must meet Tier 3 emission standards [40 CFR 60.4205(c), Table 4]
c. Each engine shall be certified to meet the respective Tier requirements and be operated and maintained according to the manufacturer's emission-related written instructions. [40 CFR 60.4211(a)]
d. Both emergency engines shall burn only Ultra-Low Sulfur Diesel (ULSD). [40 CFR 60.4207(b)]
e. Each engine must have a non-resettable hour meter to monitor the hours of operation. [40 CFR 60.4209(a)] The permittee must keep records of non-emergency operating hours, emergency operating hours, and reasons for operation
f. The emergency engines may be operated for maximum of 100 hours per calendar year the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required maintenance and testing of such units is limited to 50 hours per year. [40 CFR 60.4211(f)]
g. There is no time limit on the use of emergency engines in emergency situations. [40 CFR 60.4211(f)]

4.0 OPERATION AND MAINTENANCE REQUIREMENTS

4.1 Highest and Best Practicable Treatment and Control

The permittee must provide the highest and best practicable treatment and control of air contaminant emissions in every case 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 as provided below. [OAR 340-226-0100]

4.2 Operation of Pollution Control Devices and Processes

The permittee must operate and maintain air pollution control devices and emission reduction processes at the highest reasonable efficiency and effectiveness to minimize emissions. Air pollution control devices and components must be in operation and functioning properly at all times when the associated emission source is operating. [OAR 340-226-0120]

4.3 Operation of Carbon Filters

At all times, the permittee must operate and maintain any carbon filters and associated monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to DEQ which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.11646(b)]

5.0 PLANT SITE EMISSION LIMITS

5.1 Plant Site Emission Limits (PSEL)

The permittee must not cause or allow plant site emissions to exceed the following: [OAR 340-222-0040 and/or OAR 340-222-0041, OAR 340-222-0060]

Pollutant	Limit	Units
PM	49	tons per year
PM_{10}	16	tons per year
$PM_{2.5}$	3	tons per year
SO_2	2	ton per year
NO_X	7	tons per year
CO	19	tons per year
VOC	1	tons per year
GHGs (CO_2e)	7,229	tons per year

5.2 Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period. [OAR 340-222-0035]

6.0 COMPLIANCE DEMONSTRATION

6.1 Facility-Wide Monitoring Requirements

At least weekly, the permittee must conduct a visual survey of the site for a minimum period of 30 minutes using EPA Method 22. If visible emissions are detected from the point sources for more than 5% of the survey period (90 seconds) from an emission source, the permittee must either take corrective action to eliminate the visible emissions or conduct a Method 9 test within 24 hours of the survey period. The permittee must maintain records of the surveys, corrective action (if necessary), and Method 9 tests (if conducted).

6.2 Mercury Monitoring Requirements

The permittee must monitor each carbon filter controlling mercury emissions (CF1, CF2, CF3) by either Condition 6.2.a or 6.2.b:

a. Continuously sampling and analyzing the carbon filter exhaust using EPA Method 30B for a duration of at least the minimum sampling time specified in the method and up to one week that includes the period of the annual performance test required in Condition 7.1. [40 CFR 63.11647(f)]

i. Establish an upper operating limit for the process as determined below:

$$OLC = C_{trap} * (EL/CT)$$

Where:

OLC = mercury concentration operating limit as measured using the sorbent trap ($\mu g/m^3$)
C_{trap} = average mercury concentration measured using the sorbent trap during the week that includes the performance test ($\mu g/m^3$)
EL = Emission standard (lb/ton concentrate)
CT = Compliance test results (lb/ton concentrate)

ii. Sample and analyze the carbon filter exhaust for mercury at least monthly using EPA Method 30B. When the mercury concentration reaches 75% of the operating limit, the permittee must begin weekly sampling and analysis. When the mercury concentration reaches 90% of the operating limit, the permittee must replace the carbon in the carbon filter within 30 days. If the mercury concentration exceeds the operating limit, the permittee must change the carbon in the carbon filter within 30 days and report the deviation to DEQ.

b. Conduct an initial sampling of carbon in the carbon filter for mercury 90 days after replacement of the carbon. A representative sample must be collected from the inlet and outlet of the filter and analyzed using SW-846 Method 7471B. The depth to which the sampler is inserted must be recorded. The design capacity is established by calculating the average carbon loading from the inlet and outlet measurements. Sampling and analysis of the carbon filter for mercury must be performed quarterly thereafter. When the carbon loading reaches 50% of the design capacity, monthly sampling must be performed until 90% of the carbon design capacity is reached. The carbon must be removed and replaced with fresh carbon no later than 30 days after reaching 90% of capacity. For carbon filter designs where there may be multiple carbon columns or beds in the filter, a representative sample may be collected from the first and last column or bed instead of the inlet and outlet. If the carbon loading exceeds the design capacity of the carbon, the permittee must change the carbon within 30 days and report the deviation to DEQ.

c. The permittee must monitor gas stream temperature at the inlet to the carbon filter for each process unit. A maximum value for the inlet temperature must be established either during the compliance test required in Condition 7.1, or according to manufacturer's specifications, or as approved by DEQ. If the temperature is established during the compliance test, the temperature operating limit must be based at either the highest reading during the test, or at 10°F higher than the average temperature measured during the test. The permittee must monitor the temperature once per shift. If an inlet temperature exceeds the temperature operating limit, the permittee must take corrective actions to get the temperature below the limit within 48 hours. If the exceedance persists, within 144 hours of the exceedance the permittee must either sample and analyze the exhaust stream in accordance with Condition 6.2a to compare with the operating limit or must sample the carbon in accordance with Condition 6.2b. If the gas concentration is below 90% of the upper operating limit or the carbon sample is below 90% of the carbon loading capacity, the permittee may set a new temperature operating limit 10°F above the previous operating limit or at an alternative limit approved by DEQ. If the gas concentration is above 90% of the upper operating limit or the carbon

sample is above 90% of the carbon loading capacity, the permittee must change the carbon in the filter within 30 days and report the event to DEQ and reestablish an appropriate maximum temperature limit based on DEQ approval. [40 CFR 63.11647(g)]

d. The permittee may conduct additional compliance tests according to the procedures in Condition 7.1 and re-establish the operating limits required in Conditions a through c at any time. The permittee must submit a request to DEQ for approval to re-establish the operating limits. In the request, the permittee must demonstrate that the proposed change to the operating limit detects changes in levels of mercury emission control. An approved change to the operating limit under this condition only applies until a new operating limit is established during the next annual compliance test. [40 CFR 63.11647(h)]

6.3 PSEL Compliance Monitoring

The permittee must calculate the emissions for each 12-consecutive calendar month period, by the last day of the following month, based on the following calculation for each pollutant except GHGs: [OAR 340-222-0080]

$$E = \Sigma (EF \times P) \times 1 \text{ ton}/2000 \text{ pounds}$$

Where:

E	=	pollutant emissions (tons/year);
Σ	=	symbol representing "summation of";
EF	=	pollutant emission factor (see Condition 15.0);
P	=	process production (see Condition 16.0)

6.4 Emission Factors

The permittee must use the default emission factors provided in Condition 15.0 for calculating pollutant emissions. [OAR 340-222-0080]

6.5 Greenhouse Gas Emissions

The permittee must calculate greenhouse gas emissions in metric tons and short tons for each 12-consecutive calendar month period, by the end of the following month, to determine compliance with the GHG PSEL by using the following: [OAR 340-215-0040]

a. DEQ Fuel Combustion Greenhouse Gas Calculator https://www.oregon.gov/deq/FilterDocs/ghgCalculatorFuelCombust.xlsx;
b. https://ccdsupport.com/confluence/display/help/Optional+Calculation+Spreadsheet+Instructions; or
c. An alternative calculation method approved in writing by DEQ.

6.6 PSEL Compliance Monitoring

The permittee must demonstrate compliance with the PSEL by totaling the emissions from all devices and processes calculated under Conditions 6.3 and 6.5. [OAR 340-222-0080]

7.0 SOURCE TESTING

7.1 Mercury Testing

The permittee must conduct an initial compliance test for the mercury limits in Condition 3.2 within 180 days of startup. The compliance test must be repeated annually thereafter, with no two consecutive tests occurring less than 3 months apart or more than 15 months apart. [40 CFR 63.11646(a)]

a. EPA Method 29 must be used to determine the concentration of mercury. Upon DEQ approval, ASTM D6784 (Ontario Hydro Method) or EPA Method 30B could be used as an alternative test method. [40 CFR 11646(a)(1)]
b. A minimum of three test runs must be conducted for each test of each process unit. A minimum of 30 dry standard cubic feet must be collected for Method 29. If the test results for any of the emission points yields a non-detect value, then the minimum detection limit (MDL) must be used to calculate the mass emission rate (lb/hr) used to calculate the emission factor (lb/ton) for that emission point and, in turn, for calculating the sum of the emissions (lb Hg/ton concentrate) for the affected units. If the resulting mercury emissions are greater than the standard in Condition 3.2, the permittee may use procedures that produce lower MDL results and repeat the compliance test one additional time for any emission point below the MDL. The additional test results must be used to determine compliance (no additional opportunities to lower the MDL). [40 CFR 63.11646(a)(2)]
c. Testing shall be conducted under conditions based on representative performance of the affected source for the period being tested. Upon request the permittee shall make available to DEQ such records as may be necessary to determine the conditions of the performance test. Record and report to DEQ the process throughput for each test run. For the combined exhaust of the preg tanks, electrowinning cells and mercury retort, testing must be performed either by conducting a single test with all affected units in operation or by conducting a separate test on each unit. [40 CFR 63.11646(a)(3)]
d. Calculate the mercury emission rate (lb/hr) based on the average of 3 test run values for each process unit (or combination of units) using the following equation: [40 CFR 63.11646(a)(4)]

$$E = C_s * Q_s * K$$

Where:

E	=	mercury emissions (lb/hr)
C_s	=	mercury concentration (gr/dscf)
Q_s	=	volumetric flow in stack (dscf/hr)
K	=	conversion factor 1.43E-04.

e. Monitor and record the number of one-hour periods each process unit operates during each month. [40 CFR 63.11646(a)(5)]
f. For the initial compliance determination, determine the total mercury emissions for all the full calendar months between startup and the date of the initial compliance test by multiplying the emissions rate (lb/hr) for each process unit (or combination of units) by the number of one hour periods each process unit (or the unit that had the greatest total operating hours for combined processes) operated during those full calendar months prior to the initial test. [40 CFR 63.11646(a)(6)]

g. Following the initial compliance determination, determine the total mercury mass emissions for each process unit (or combination of units) for the full 12 calendar months preceding the performance test by multiplying the emissions rate (lb/hr) for each process unit (or combination of units) by the number of one hour periods each process unit (or the unit that had the greatest total operating hours for combined processes) operated during the 12 full calendar months preceding the completion of the most recent performance test. [40 CFR 63.11646(a)(7)]

h. Measure the weight of concentration produced by electrowinning using weigh scales for each batch prior to processing in the mercury retort. The concentrate must be weighed in the same state and condition as it is when fed to the mercury retort. Accurate records of the weights of each batch of concentrate must be kept and the total weight of concentrate processed each month must be recorded. The permittee must maintain the weighing system within ± 5% accuracy. The permittee must describe the specific equipment used to make weight measurements and how the equipment is periodically calibrated. The permittee must also explain, document and maintain written procedures for determining the accuracy of the measurements and make the procedures available to DEQ upon request. The permittee must determine, record, and maintain a record of the accuracy of the measurement system before the beginning of the initial compliance period and during each subsequent quarter of affected source operation. [40 CFR 63.11646(a)(9), (10)]

i. Record the weight of concentrate in tons on a daily and monthly basis. [40 CFR 63.11646(a)(11)]

j. For the initial compliance determination calculate the emissions for the sum of all full months between startup and the date of the initial compliance test in pounds of mercury per tons of concentrate by dividing the sum of mercury mass emissions (in pounds) from all affected units during the full months between startup and the initial compliance test by the total amount of concentrate (in tons) processed during the same time period. [40 CFR 63.11646(a)(12)]

k. After the initial compliance test calculate the emissions from each affected unit for each 12 month period preceding the subsequent compliance test in pounds of mercury per tons of concentrate by dividing the sum of mercury mass emissions (in pounds) from all affected units in the 12 month period preceding a compliance test by the total amount of concentrate (in tons) processed during the same time period. [40 CFR 63.11646(a)(13)]

7.2 Particulate Matter and Visible Emissions Testing

a. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, the permittee must conduct a performance test of the mercury retort (MR) and submit a written report of the results to DEQ. [40 CFR 60.385(a)]

b. The permittee must determine compliance with the particulate matter standards in Condition 3.1.b for mercury retort (MR) as follows: [40 CFR 60.386(b)]

   i. Method 5 or 17 must be used to determine the particulate matter concentration. The sample volume for each run shall be at least 1.70 dscm (60 dscf). The sampling probe and filter holder of Method 5 may be operated without heaters if the gas stream being sampled is at ambient temperature. For gas streams above ambient temperature, the Method 5 sampling train shall be operated with a probe and filter temperature slightly above the effluent temperature (up to a maximum

filter temperature of 121 °C (250 °F)) in order to prevent water condensation on the filter.

ii. Method 9 and the procedures in § 60.11 shall be used to determine opacity from stack emissions and process fugitive emissions. The observer shall read opacity only when emissions are clearly identified as emanating solely from the affected facility being observed. A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval. This option is subject to the following limitations:
   A. No more than three emission points are read concurrently;
   B. All three emission points must be within a 70° viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points; and
   C. If an opacity reading for any one of the three emission points is within 5 percent opacity of the application standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

8.0 SPECIAL CONDITIONS

The permittee must apply for a Title V Permit within 1 year of the start of operations. [40 CFR 63.11640(d), OAR 340-218-0040(1)(a)(A)]

9.0 RECORDKEEPING REQUIREMENTS

9.1 Operation and Maintenance

The permittee must maintain the following records related to the operation and maintenance of the facility and associated air contaminant control devices: [OAR 340-214-0114]

a. Fugitive emissions Method 22 observations and corrective actions in accordance with Condition 2.2a;
b. Monitoring requirements in accordance with Condition 6.1;
c. All operating and production parameters reported to DEQ annually as required in Condition 10.2; and
d. Process records identified in Condition 16.0.

9.2 Mercury Compliance Records

The permittee must maintain a copy of each notification submitted in accordance with Conditions 10.4 and 10.5 and all documentation supporting these notices. The permittee must keep records of operating hours for each process emitting mercury and records of the monthly quantity of concentrate processed. Maintain records of all performance tests, measurements, monitoring data and corrective actions taken under Condition 6.2c including: [40 CFR 63.11648(e)]

a. The date, place and time of carbon filter inlet temperature exceedance requiring corrective action.
b. Technique or method used for monitoring.
c. Operating conditions during the activity.
d. Results, including the date, time and duration of the temperature exceedance period.
e. Maintenance of corrective action taken.

9.3 Excess Emissions

a. The permittee must maintain the records of excess emissions listed below and 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 as a six-minute block average.
   i. The date and time of the beginning of the excess emissions event and the duration or best estimate of the time until return to normal operation;
   ii. The date and time the permittee notified DEQ of the event;
   iii. The equipment involved;
   iv. Whether the event occurred during planned startup, planned shutdown, scheduled maintenance, or as a result of a breakdown, malfunction or emergency;
   v. Steps taken to mitigate emissions and corrective action taken, including whether the approved procedures for a planned startup, shutdown or maintenance activity were followed;
   vi. The magnitude and duration of each occurrence of excess emissions during the course of an event and the increase over normal rates or concentrations as determined by continuous monitoring or best estimate (supported by operating data and calculations); and
   vii. The final resolution of the cause of the excess emissions;
b. If there is an ongoing excess emission caused by an upset or breakdown, the permittee must immediately take action to minimize emissions to the greatest extent practicable by reducing or ceasing operation of the equipment or facility, unless doing so could result in physical damage to the equipment or facility, or cause injury to employees, or result in higher emissions associated with shutdown and subsequent startup that those emissions resulting from continued operation. The permittee may:
   i. Cease operation of the equipment or facility within 8 hours of the beginning of the period of excess emissions;
   ii. Request continued operation by submitting to DEQ a written request to continue operation within 8 hours of the beginning of the period of excess emissions;
   iii. Continue operation only if approved by DEQ in accordance with OAR 340-214-0330(4)(b). Otherwise, the permittee must cease operation within one hour of receiving DEQ's disapproval of continued operation (4).
c. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends or holidays, the permittee must immediately notify DEQ by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.
d. If startups or shutdowns may result in excess emissions, the permittee must submit startup/shutdown procedures used to minimize excess emissions to DEQ for prior authorization, as required in OAR 340-214-0310. New or modified procedures must be

received by DEQ in writing at least 72 hours prior to the first occurrence of the excess emission event. The permittee must abide by the approved procedures and have a copy available at all times.

e. If permittee anticipates that scheduled maintenance may result in excess emissions, the permittee must submit scheduled maintenance procedures used to minimize excess emissions to DEQ for prior authorization, as required in OAR 340-214-0320. New or modified procedures must be received by DEQ in writing at least 72 hours prior to the first occurrence of the excess emission event. The permittee must abide by the approved procedures and have a copy available at all times.
f. The permittee must maintain a log of all excess emissions in accordance with OAR 340-214-0340(3).

9.4 Complaints

The permittee must maintain a log of all complaints received by the permittee in person, in writing, by telephone or through other means according to Condition 2.5. Documentation must include all information identified in Condition 2.5. [OAR 340-214-0114]

9.5 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 the monitoring sample, measurement, report or application and make them available to DEQ upon request. The permittee must maintain the two (2) most recent years of records onsite. [OAR 340-214-0114]

10.0 REPORTING REQUIREMENTS

10.1 Excess Emissions

a. Immediately (within 1 hour of the event) notify DEQ of an excess emissions event by phone, email, or facsimile; and
b. Within 15 days of the excess emissions event, submit a written report that contains the following information via DEQ's 'Your DEQ Online' system : [OAR 340-214-0340(1)]
    i. The date and time of the beginning of the excess emissions event and the duration or best estimate of the time until return to normal operation;
    ii. The date and time the permittee notified DEQ of the event;
    iii. The equipment involved;
    iv. Whether the event occurred during startup, shutdown, maintenance, or as a result of a breakdown, malfunction, or emergency;
    v. Steps taken to mitigate emissions and corrective action taken, including whether the approved procedures for a planned startup, shutdown, or maintenance activity were followed;
    vi. The magnitude and duration of each occurrence of excess emissions during the course of an event and the increase over normal rates or concentrations as determined by continuous monitoring or best estimate (supported by operating data and calculations);

vii. The final resolution of the cause of the excess emissions; and
viii. Where applicable, evidence supporting any claim that emissions in excess of technology-based limits were due to any emergency pursuant to OAR 340-214-0360

c. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, the permittee must immediately notify DEQ by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311

10.2 Annual Report

For each year this permit is in effect, the permittee must submit one (1) electronic copy of the annual report to DEQ using DEQ's 'Your DEQ Online' system, unless otherwise approved in writing by DEQ, and one paper copy of the report to EPA by **February 15** of the following information for the previous calendar year. If February 15 falls on a weekend or Monday holiday, the permittee must submit their annual report on the next business day.

a. Operating parameters:
   i. Amount of ore processed (ton/month, ton/yr)
   ii. Amount of borrow processed (ton/month, ton/yr)
   iii. Hours the carbon reactivation kiln processes spent carbon (hr/month, hr/yr)
   iv. Hours the melting furnace processes concentrate (hr/month, hr/yr)
   v. Heat input to the melting furnace (MMBtu/month, MMBtu/yr)
   vi. Hours of emergency generator operation (hr/yr)
   vii. Hours of non-emergency generator operation (hr/yr)
   viii. Hours of emergency and non-emergency fire pump operation (hr/yr)
   ix. Amount of propane burned in the boilers (MMBtu/month, MMBtu/yr)
   x. Amount of cement delivered to cement plant (ton/month, ton/yr)
   xi. Amount of aggregate used in cement plant (ton/month, ton/yr)
   xii. Amount of emulsion used in mine blasting (ton/month, ton/yr)
   xiii. Amount of ANFO used in borrow blasting (ton/month, ton/yr)
   xiv. Distance travelled by ore trucks underground (VMT/month, VMT/yr)
   xv. Distance travelled by grader underground (VMT/month, VMT/yr)
   xvi. Number of holes drilled for borrow blasting (holes/month, holes/yr)
   xvii. Distance travelled in borrow hauling (VMT/month, VMT/yr)
   xviii. Distance travelled by grader above ground (VMT/month, VMT/yr)
   xix. Distance travelled by water truck above ground (VMT/month, VMT/yr)
b. Calculations of annual pollutant emissions determined each month in accordance with Condition 6.3 and 6.5.
c. A brief summary listing the date, time and the affected device/process for each excess emission that occurred during the reporting period.
d. Summary of complaints relating to air quality received by permittee during the year in accordance with Condition 9.4.
e. List permanent changes made in facility process, production levels and pollution control equipment which affected air contaminant emissions.
f. List major maintenance performed on pollution control equipment.

10.3 Cleaner Air Oregon General Annual Reporting

As part of the annual report, submit CAO Annual Zoning and Exposure Location Verification form AQ540 (https://www.oregon.gov/deq/aq/cao/Documents/AQ540Form.pdf) or other DEQ approved forms that include statements verifying if the following have occurred: [OAR 340-245-0100(7)(c) and (d)]

a. Changes in zoning within 1.5 kilometers of this source and whether those changes increase risk; and
b. Changes in land use near this source and whether those changes increase risk.

10.4 Greenhouse Gas Registration and Reporting

a. If the calendar year greenhouse gas emissions (CO_2e) are ever greater than or equal to 2,756 tons (2,500 metric tons), the permittee must annually register and report its greenhouse gas emissions with DEQ in accordance with OAR 340 Division 215.
b. If the calendar year greenhouse gas emissions (CO_2e) are less than 2,756 tons (2,500 metric tons) for three consecutive years, the permittee may stop reporting greenhouse gas emissions but must retain all records used to calculate greenhouse gas emissions for the five years following the last year that they were required to report. The permittee must resume reporting its greenhouse gas emissions if the calendar year greenhouse gas emissions (CO_2e) are greater than or equal to 2,756 tons (2,500 metric tons) in any subsequent calendar year.

10.5 Notification of Compliance Status

The permittee must submit a notification of compliance status to DEQ and EPA, signed by the responsible official who shall certify its accuracy attesting to whether the source has complied with the standard. The notification must be submitted by the 60th day following any applicable performance test The notification shall list: [40 CFR 63.9(h)(2), 63.11648(b)]

a. The methods that were used to determine compliance.
b. The results of any performance tests, opacity or visible emission observations, continuous monitoring system performance evaluations, and/or other monitoring procedures or methods that were conducted.
c. The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods.
d. Mercury emissions in lb/ton of concentrate as calculated from the most recent compliance test.
e. A description of the air pollution control equipment for the affected units including the control efficiency for each control device.
f. A statement by the responsible official as to whether the permittee has complied with the relevant standard.
g. If there was a malfunction during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee to minimize emissions. [40 CFR 63.11648(d)]

10.6 Mercury Deviation Reporting

If a deviation occurs during a semiannual reporting period (January 1 – June 30 and July 1 – December 31), the permittee must submit a deviation report to DEQ no later than July 31 or January 31, whichever date come first after the end of the semiannual reporting period. The deviation report must contain the following information: [40 CFR 63.11648(c)]

a. Company name and address.
b. Statement by responsible official, with the official's name, title and signature, certifying the truth, accuracy and completeness of the content of the report.
c. Date of the report and beginning and ending dates of the reporting period.
d. Identification of the affected source, the pollutant being monitored, applicable requirement, description of deviation, and corrective action taken.

10.7 Mercury Test Results

Within 60 days after completing each compliance test, the permittee must submit the test data to EPA by entering the data electronically into EPA's WebFIRE data base through EPA's Central Data Exchange. The permittee shall enter the test data into EPA's data base using the Electronic Reporting Tool or other compatible electronic spreadsheet. [40 CFR 11648(g)]

10.8 Notice of Change of Ownership or Company Name

The permittee must notify DEQ in writing using a DEQ 'transfer' permit action submittal within 60 days after 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.

10.9 Construction or Modification Notices

The permittee must notify DEQ in writing using a DEQ "Notice of Intent to Construct" form, or other permit application forms and obtain approval in accordance with OAR 340-210-0205 through 340-210-0250 and OAR 340-245-0060(4)(c) 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 air pollution control equipment.

10.10 Air Toxics Emissions Inventory

The permittee must submit an air toxics emission inventory every three years. DEQ will notify the permittee in writing and provide a reporting form. [OAR 340-245-0040]

11.0 ADMINISTRATIVE REQUIREMENTS

11.1 Permit Renewal Application

The permittee must submit the completed application package for renewal of this permit **180 days prior to the expiration date**. One (1) electronic copy of the application must be submitted to the DEQ using the 'Your DEQ Online' system. Failure to submit a timely renewal application, or obtain a different ACDP prior to the permit expiration date, may result in permit termination. [OAR 340-216-0040]

11.2 Permit Modifications

Application for a modification of this permit must be submitted at least 60 days prior to the source modification. When preparing an application, the applicant should also consider submitting the application 180 days prior to allow DEQ adequate time to process the application and issue a permit before it is needed. The application must be submitted to DEQ using the 'Your DEQ Online' system. A specific activity fee will be assessed after DEQ has reviewed the permit modification application. [OAR 340-216-0040]

11.3 Annual Compliance Fee

The permittee must pay the annual fees specified in OAR 340-216-8020, Table 2, Part 2 and 3 by **December 1** of each year this permit is in effect. An invoice 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.**

11.4 Change of Ownership or Company Name Fee

The permittee must pay the non-technical permit modification fee specified in OAR 340-216-8020, Table 2, Part 4 with an application for changing the ownership or the name of the company. Name changes and ownership changes are processed in the 'Your DEQ Online' system as a 'transfer'.

11.5 Special Activity Fees

The permittee must pay the special activity fees specified in OAR 340-216-8020, Table 2, Part 4 with an application to modify the permit.

12.0 DEQ CONTACTS / ADDRESSES

12.1 Where to Submit Fees

Fees must be paid within DEQ's 'Your DEQ Online' system at https://ydo.oregon.gov. Fees can be paid by ACH, credit card, or check by following the instructions on the invoice or within the 'You DEQ Online' system.

12.2 Report Submittals

Unless otherwise notified, the permittee must submit all reports (annual reports, source test plans and reports, etc.) via DEQ's 'Your DEQ Online' system for this permit.

12.3 Permit Coordinator

If you have questions about your permit, you can contact the permit coordinator

Oregon Dept. of Environmental Quality
Eastern Region Bend Office
Air Quality Permit Coordinator
475 NE Bellevue Dr., Suite 110
Bend, OR 97701-7415
eraqpermits@deq.oregon.gov
phone: (541) 388-6146

12.4 Web Site

Information about air quality permits and DEQ's regulations may be obtained from the DEQ web page at www.oregon.gov/deq/.

13.0 CLEANER AIR OREGON GENERAL CONDITIONS AND DISCLAIMERS

13.1 Risk Reassessment and Permit Modifications

a. The permittee must submit a revised risk assessment and apply for a permit modification as applicable before making any of the following changes: [OAR 340-245-0100(8)(a)(A)]
   i. Construct or modify a TEU that is:
      A. Exempt under OAR 340-245-0060(4)(c)(A);
      B. Aggregated under OAR 340-245-0060(4)(c)(B)(iii); or
      C. Significant under OAR 340-245-0060(4)(c)(C)(i);
   ii. Modify an established Source Risk Limit or any risk limits or conditions required by OAR Chapter 340 Division 245; [OAR 340-245-0100(8)(a)(B)]
   iii. Request an extension to a compliance date as outlined in OAR 340-245-0100(8)(a)(C);
   iv. Modify any physical feature of the source that was used as a modeling parameter in the risk assessment that may affect the results of the Risk Assessment; [OAR 340-245-0100(8)(a)(D)]
   v. Terminate postponement of risk reduction established under OAR 340-245-0150 [OAR 340-245-0100(8)(a)(E)]; or
   vi. Modify air monitoring requirements established under OAR 340-245-0230. [OAR 340-245-0100(8)(a)(G)]

b. The permittee must submit a revised risk assessment and apply for a permit modification as applicable by no later than 60 days after the following:
   i. Zoning changes were approved and made effective within 1.5 kilometers of the source that could increase risk; [OAR 340-245-0100(8)(a)(F)]
   ii. Land use has changed in a way that could increase risk in any area in which land uses were excluded from the permittee's Cleaner Air Oregon risk assessment under OAR 340-245-0210(1)(a)(F) because such area was not used in a manner allowed by the applicable zoning [OAR 340-245-0100(8)(a)(F)]; or
   iii. The permittee becomes aware that corrections or additional information are needed to revise or update the original risk assessment [OAR 340-245-0100(8)(a)(H)].

c. The permittee must submit a revised risk assessment and apply for a permit modification as applicable by no later than 90 days after being notified by DEQ that: [OAR 340-245-0100(8)(c)]
   i. A previous risk assessment contains errors or omissions that, when corrected, could increase the risk; [OAR 340-245-0100(8)(b)(A)]
   ii. A Risk Based Concentration in OAR 340-245-8010 Table 2 for a Toxic Air Contaminant that is emitted by this source has been added or the value lowered, leading to a substantial increase in risk [OAR 340-245-0100(8)(b)(B)]; or
   iii. The risk assessment procedures in OAR Chapter 340 Division 245 have changed in a way that would substantially increase risk, or substantially impact the implementation or effectiveness of the Risk Reduction Plan. [OAR 340-245-0100(8)(b)(C)]

13.2 Procedures and Fees

a. When required to submit a revised risk assessment under Condition 13.1, the permittee must follow the procedures in OAR 340-245-0100(8)(e) and submit fees as required under OAR 340-216-8030 Table 3

b. When a permit modification is required under Condition 13.1, the permittee must apply for an operating permit modification under OAR 340 Division 216 using the procedures in OAR Chapter 340 Division 245 and submit fees as required under OAR 340-245-0100(8)(g).

13.3 CAO Submittal Deadline Extensions

The permittee may request an extension for submittals required under Condition 13.1 in accordance with OAR 340-245-0030(3) by submitting a written request no fewer than 15 days prior to the submittal deadline. [OAR 340-245-0100(8)(d)]

14.0 GENERAL CONDITIONS AND DISCLAIMERS

14.1 Permitted Activities

a. Until this permit expires or is modified or revoked, the permittee is allowed to discharge air contaminants from the following:

i. Processes and activities directly related to or associated with the devices/processes listed in Condition 1.0 of this permit;
ii. Any categorically insignificant activities, as defined in OAR 340-200-0020, at the source;
iii. Any activities designated as exempt toxic emissions units under OAR 340-245-0060(3) at the source;
iv. Processes and activities specifically permitted by an ACDP attachment that has been assigned to the permittee pursuant to OAR 340-216-0068. ACDP attachments are removed when the applicable requirements of the Attachment are incorporated into the permittee's ACDP; and
v. Construction or modification changes that are Type 1 or Type 2 changes under OAR 340-210-0225 that are approved by DEQ in accordance with OAR 340-210-0215 through 0250, if the permittee complies with all of the conditions of DEQ's approval to construct and all of the conditions of this permit.

b. Discharge of air contaminants from any other equipment or activity not identified herein is not authorized by this permit.

14.2 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.

14.3 Conflicting Conditions

In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply. [OAR 340-200-0010]

14.4 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. [OAR 340-208-0400]

14.5 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.

14.6 Permit Availability

The permittee must have a copy of the permit available at the facility at all times. [OAR 340-216-0020(3)]

14.7 Open Burning

The permittee may not conduct any open burning except as allowed by OAR 340, division 264.

14.8 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 limited to, demolition, renovation, repair, construction, and maintenance.

14.9 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.

14.10 Permit Expiration

a. A source may not be operated after the expiration date of the permit, unless any of the following occur prior to the expiration date of the permit: [OAR 340-216-0082]
   i. A timely and complete application for renewal of this permit or for a different ACDP has been submitted; or
   ii. A timely and complete application for renewal or for an Oregon Title V Operating Permit has been submitted, or
   iii. Another type of permit (ACDP or Oregon Title V Operating Permit) has been issued authorizing operation of the source.
b. For a source operating under an ACDP or Oregon Title V Operating Permit, a requirement established in an earlier ACDP remains in effect notwithstanding expiration of the ACDP, unless the provision expires by its terms or unless the provision is modified or terminated according to the procedures used to establish the requirement initially.

14.11 Permit Termination, Revocation, or Modification

DEQ may terminate, revoke, or modify this permit pursuant to OAR chapter 340 division 216. [OAR 340-216-0082].

14.12 Construction Approval

a. The construction of the source must be in strict conformance with the plans and specifications submitted by the applicant and approved by the DEQ, including the dates of commencement and completion of the project. No changes or deviations that would increase the quantity or alter the impacts of emissions may be made without prior written approval from DEQ. [OAR 340-216-0020, 340-216-0040, 340-210-0230]
b. For phased construction projects, the start dates for each phase of construction that were listed in the application and received construction approval from DEQ will be treated as the construction approval date for the applicable phase. [OAR 340-216-0040(1)(Q) & (R)]
c. Construction approval issued by DEQ, including this permit, terminates and is invalid for the following reasons: [OAR 340-216-0082(3)]

i. Construction is not commenced within 18 months after DEQ issues this permit, by an alternative deadline established by DEQ, or by the deadline approved by DEQ in an extension;
ii. Construction is discontinued for a period of 18 months or more; or
iii. Construction is not completed within 18 months of the anticipated date of construction completion included in the application.

d. A written request for an extension to the construction commencement deadline must be submitted to DEQ, detailing why the source could not commence construction within the initial 18-month period. The request: [OAR 340-216-0082(3)]
i. Must be received before the 18 month construction commencement deadline passes in order to avoid termination of the construction approval; or
ii. If the request for an extension is received after the 18 month construction commencement deadline, a new application and new permit application fees are required for reinstatement of the terminated construction approval.

15.0 EMISSION FACTORS

Emissions Device or Activity	Pollutant	Emission Factor (EF)	EF Units
Ore Crushing	PM	6.00E-03	lb/ton
	PM_{10}	2.28E-03	
	$PM_{2.5}$	3.80E-04	
Borrow Crushing	PM	5.68E-02	lb/ton
	PM_{10}	2.12E-02	
	$PM_{2.5}$	3.23E-03	
Carbon Reactivation Kiln	$PM/PM_{10}/PM_{2.5}$	0.06	lb/hr
	CO	1.05	
Melting Furnace	$PM/PM_{10}/PM_{2.5}$	0.66	lb/hr
	CO	3.65E-02	
	SO_2	5.18E-01	lb/MMBtu
	NO_x	1.46E-01	
	VOC	2.50E-03	
Boilers	$PM/ PM_{10}/PM_{2.5}$	7.65E-03	lb/MMBtu
	SO_2	1.74E-02	
	NO_x	1.42E-01	
	CO	8.20E-02	
	VOC	8.74E-03	
	PM	2.04E-02	lb/ton
	PM_{10}	6.18E-03	

Emissions Device or Activity	Pollutant	Emission Factor (EF)	EF Units
Cement Handling (CEM1, CEM2, CEM5)	$PM_{2.5}$	9.00E-04	
Aggregate Handling (CEM3, CEM4)	PM	1.17E-02	lb/ton
	PM_{10}	6.10E-03	
	$PM_{2.5}$	9.00E-04	
Underground Blasting	PM	6.52E-02	lb/blast
	PM_{10}	3.39E-02	
	$PM_{2.5}$	1.96E-03	
	SO_2	3.60E-03	lb/ton emulsion
	NO_x	6.16	
	CO	32.53	
Underground Haul Roads	PM	0.56	lb/VMT
	PM_{10}	0.15	
	$PM_{2.5}$	0.015	
Underground Grading	PM	2.15E-01	lb/VMT
	PM_{10}	6.46E-02	
	$PM_{2.5}$	6.68E-03	
Borrow Drilling	PM	1.30	lb/hole
	PM_{10}	6.76E-01	
	$PM_{2.5}$	3.90E-02	
Borrow Blasting	PM	4.95	lb/blast
	PM_{10}	2.75	
	$PM_{2.5}$	0.148	
	SO_2	3.60E-03	lb/ton ANFO
	NO_x	1.80	
	CO	67	
Borrow Haul Roads	PM	8.51E-01	lb/VMT
	PM_{10}	2.25E-01	
	$PM_{2.5}$	2.25E-02	
Borrow Grader	PM	4.31E-01	lb/VMT
	PM_{10}	1.29E-01	
	$PM_{2.5}$	1.34E-02	
Borrow Water Truck	PM	1.21	lb/VMT
	PM_{10}	3.20E-01	

Emissions Device or Activity	Pollutant	Emission Factor (EF)	EF Units
	$PM_{2.5}$	3.20E-02	

16.0 PROCESS/PRODUCTION RECORDS

Emissions Device or Activity	Process or Production Parameter	Frequency
Ore Crushing	tons ore processed	Monthly
Borrow Crushing	ton borrow mined	Monthly
Carbon Reactivation Kiln	hours of operation	Monthly
Melting Furnace	hours of operation	Monthly
	heat input (MMBtu)	Monthly
Boilers	combined heat input (MMBtu)	Monthly
Cement Received	tons cement received	Monthly
Aggregate Handle (CEM3, CEM4)	tons/ handled	Monthly
Underground Blasting	tons emulsion used	Monthly
Underground Haul Roads	vehicle miles travelled (VMT)	Monthly
Underground Grader	vehicle miles travelled (VMT)	Monthly
Borrow Drilling	number of holes	Monthly
Borrow Blasting	tons ANFO used	Monthly
Borrow Haul Roads	vehicle miles travelled (VMT)	Monthly
Borrow Grader	vehicle miles travelled (VMT)	Monthly
Borrow Water Truck	vehicle miles travelled (VMT)	Monthly

17.0 ABBREVIATIONS, ACRONYMS AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit
ANFO	Ammonium Nitrate Fuel Oil
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
BDT	Bone Dry Ton
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
EU	Emissions Unit
FCAA	Federal Clean Air Act
Gal	Gallon(s)
GHG	Greenhouse Gas
gr/dscf	grains per dry standard cubic foot
g/dscm	grams per dry standard cubit meter
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
I&M	Inspection and Maintenance
lb	Pound(s)
MDL	Minimum Detection Limit
MSF	1,000 Square Feet
MMBtu	Million British thermal units
MMscf	Million Square Feet
NA	Not Applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	Operation and Maintenance
Pb	Lead
PCD	Pollution Control Device
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	parts per million
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
Special Control Area	as defined in OAR 340-204-0070
TACT	Typically Achievable Control Technology
TEU	Toxic Emission Unit
ULSD	Ultra-Low Sulfur Diesel
VE	Visible Emissions
VMT	Vehicle Miles Travelled
VOC	Volatile Organic Compound
Year	A period consisting of any 12-consecutive calendar months

NSPS General Provisions

Citation	Subject	Subpart LL Applicable	Subpart IIII Applicable
§ 60.1	General applicability of the General Provisions	Yes	Yes
§ 60.2	Definitions	Yes	Yes
§ 60.3	Units and abbreviations	Yes	Yes
§ 60.4	Address	Yes	Yes
§ 60.5	Determination of construction or modification	Yes	Yes
§ 60.6	Review of plans	Yes	Yes
§ 60.7	Notification and Recordkeeping	Yes	Yes
§ 60.8	Performance tests	Yes	No
§ 60.9	Availability of information	Yes	Yes
§ 60.10	State Authority	Yes	Yes
§ 60.11	Compliance with standards and maintenance requirements	Yes	No
§ 60.12	Circumvention	Yes	Yes
§ 60.13	Monitoring requirements	Yes	Yes
§ 60.14	Modification		Yes
§ 60.15	Reconstruction		Yes
§ 60.16	Priority list		Yes
§ 60.17	Incorporations by reference		Yes
§ 60.18	General control device requirements		No
§ 60.19	General notification and reporting requirements		Yes

NESHAP General Provisions

Citation	Subject	Subpart ZZZZ Applicable	Subpart EEEEEEE Applicable
§ 63.1	Applicability	Yes	Yes
§ 63.2	Definitions	Yes	Yes
§ 63.3	Units and abbreviations	Yes	Yes
§ 63.4	Prohibited activities and circumvention	Yes	Yes
§ 63.5	Construction and reconstruction	Yes	Yes
§ 63.6(a) - (g)	Compliance with Standards and Maintenance Requirements	Yes	Yes
§ 63.6(h)	Opacity and visible emission standards	No	No
§ 63.6(i), (j)	Compliance extension procedures and criteria	Yes	Yes
§ 63.7(a)-(d)	Performance test	Yes	Yes
§ 63.7(e)(1)	Testing during SSM	No	No
§ 63.7(e)(2) – (h)	Conduct of performance tests and reduction of data	Yes	Yes
§ 63.8(a)(1) – (3)	Applicability of monitoring requirements	Yes	Yes
§ 63.8(a)(4)	Monitoring for control devices	No	Yes
§ 63.8(b)	Monitoring	Yes	Yes
§ 63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Yes
§ 63.8(c)(5)	COMS minimum procedures	No	No
§ 63.8(c)(6)-(g)	CMS requirements	Yes	Yes
§ 63.9(a)-(e)	Notification requirements	Yes	Yes
§ 63.9(f)	Notification of visible emission (VE)/opacity test	No	No
§ 63.9(g)-(k)	Notification of performance evaluation	Yes	Yes
§ 63.10(a)	Recordkeeping/reporting requirements	Yes	Yes
§ 63.10(b)(1)	Record retention	Yes	Yes
§ 63.10(b)(2)(i)-(v)	Records related to SSM	No	No
§63.10(b)(2)(vi)-(xiv)	Other records	Yes	Yes

Citation	Subject	Subpart ZZZZ Applicable	Subpart EEEEEEE Applicable
§ 63.10(b)(3)	Records of applicability determination	Yes	Yes
§ 63.10(c)	Additional records for sources using CMS	Yes	Yes
§ 63.10(d)(1), (2)	General reporting requirements	Yes	Yes
§ 63.10(d)(3)	Reporting opacity or VE observations	No	Yes
§ 63.10(d)(4)	Progress reports	Yes	Yes
§ 63.10(d)(5)	Startup, shutdown, and malfunction reports	No	No
§ 63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes	Yes
§ 63.10(e)(2)(ii)	COMS-related report	No	Yes
§ 63.10(e)(3)	Excess emission and parameter exceedances reports	No	Yes
§ 63.10(e)(4)	Reporting COMS data	No	No
§ 63.10(f)	Waiver for recordkeeping/reporting	Yes	Yes
§ 63.11	Control device requirements	No	No
§ 63.12	State authority and delegations	Yes	Yes
§ 63.13-16	Addresses, Incorporation by reference, availability of information, performance track provisions	Yes	Yes