State of Oregon Department of Environmental Quality

STANDARD
AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Eastern Region
475 NE Bellevue Dr., Suite 110
Bend, OR 97701
541-388-6146

~~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:

Ochoco Lumber Company
PO Box 160
John Day, OR 97845

PLANT SITE LOCATION:

Malheur Lumber Company
Restoration Fuels, LLC
60339 West Highway 26
John Day, OR 97845

INFORMATION RELIED UPON:

Application No.: 30403/30755
Date Received: 11/01/2018

LAND USE COMPATIBILITY FINDING:

Approving Authority: Grant County & City of John Day
Approval Date: November 1983 and 10/23/2018

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Mark W. Bailey, Eastern Region Air Quality Manager

JUN 2 5 2019
Dated

Source(s) Permitted to Discharge Air Contaminants (OAR 340-216-0020):

Source Description	Activity Type	SIC	NAICS	DEQ Table 1 Category Code
Sawmill and Planing Mill	Primary	2421	321113	Part B, 71
Wood Products, not elsewhere classified	Secondary	2499	321999	Part B, 85
Boiler steam supply	Supporting	4961	221330	Part B, 13

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1.0 GENERAL EMISSION STANDARDS AND LIMITS

1.1. Visible Emissions

The permittee must comply with the following visible emission limits from air contaminant sources other than fugitive emission sources, as applicable. Opacity must be measured as a six-minute block average using EPA Method 9, a continuous opacity monitoring system (COMS) installed and operated in accordance with the DEQ Continuous Monitoring Manual or 40 CFR Part 60, or an alternative monitoring method approved by DEQ that is equivalent to EPA Method 9. [OAR 340-208-0110(2)]

a. Emissions from the two Wellons wood-fired boilers (Boilers 1 and 2) must not equal or exceed 20% opacity with the exception that visible emissions may equal or exceed 20% opacity for up to two independent six-minute blocks in any hour, as long as the average opacity during each of these two six-minute blocks is less than 40%. [OAR 340-208-0110(6)]

b. For all wood-fired boilers installed, constructed or modified after April 16, 2015, no person may emit or allow to be emitted any visible emissions that equal or exceed an average of 20 percent opacity. [OAR 340-208-0110(7)]

c. Emissions from the Hurst wood-fired boiler (Boiler 3) with ESP control must either, 1) not equal or exceed 10% opacity (daily block average), or 2) maintain the 30-day rolling average total secondary electric power of the electrostatic precipitator at or above the minimum total secondary electric power as defined in 40 CFR 63.11237. [40 CFR 63.1120, Table 3]

d. Emissions from all other air contaminant sources must not equal or exceed 20% opacity. [OAR 340-208-0110(4)]

1.2. Particulate Matter Emissions

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

a. Particulate matter emissions from the wood-fired boilers must not exceed 0.10 grains per standard cubic foot, corrected to 12% CO_2. [OAR 340-228-0210(2)(c) & (3)(a)]

b. Particulate matter emissions from any air contaminant source other than the boilers and fugitive emission sources must not exceed 0.10 grains per standard cubic foot. [OAR 340-226-0210(2)(c)]

1.3. 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.

a. Such reasonable precautions must include, but not be limited to the following: [OAR 340-208-0210(1)]
   i. Use, where possible, of 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;
   ii. Application of water, or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;
   iii. Full or partial enclosure of materials stockpiles in cases where application of water or chemicals are not sufficient to prevent particulate matter from becoming airborne;
   iv. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
   v. Adequate containment during sandblasting or other similar operations;
   vi. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; and
   vii. Prompt removal from paved streets of earth or other material that does or may become airborne.

b. Upon request by DEQ, the permittee must develop a fugitive emission control plan for approval by DEQ if the above precautions are not adequate, and implement the plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period. [OAR 340-208-0210(3)]

~~**1.4. 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] This condition is enforceable only by the State.~~

~~**1.5. Nuisance and Odors**~~

~~Applicable Requirement: The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by DEQ personnel. [OAR 340-208-0300] This condition is enforceable only by the State.~~

1.6. **Air Pollution Control Devices Operating and Maintenance Requirements** 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]

~~**1.7.** **Operate as a Single Source** The permittee must operate as a single source in accordance with OAR 340-200-0020(166).~~

2.0 SPECIFIC PERFORMANCE AND EMISSION STANDARDS

2.1. **Hurst Boiler – Initial Performance Test Schedule and Emission Limits** The permittee must comply with the following:

a. An initial performance test must be conducted on Boiler 3 within 60 days of achieving maximum production rate, but no later than 180 days of start-up of the boiler, unless the deadline is extended for cause per NSPS 60.8.a. [40 CFR Part 60.11210]

b. On and after the date on which the initial performance test is completed, the following emission limits must be met:

   i. Total PM emissions must not exceed 0.03 lb/MMBtu (13 ng/J) heat input. [NSPS 40 CFR 60.43(c)(e)(1)]

   ii. Filterable PM emissions must not exceed 0.03 lb/MMBtu (13 ng/J) heat input. [NESHAPs 40 CFR 63.11201]

2.2. **Boiler Fuel Requirements** The NESHAP/MACT Standard for Industrial, Commercial and Institutional Boilers - *Boiler Area Source MACT (40 CFR Part 63 Subpart JJJJJJ)* applies to the Hurst and Wellons wood-fired boilers. The permittee may only burn *biomass* in these boilers. *Biomass* means any biomass-based solid fuel that is not a solid waste (or an exempted solid waste) as defined in 40 CFR 241.3. This includes, but is not limited to:

a. Wood residue and wood products, including trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings and shavings;

b. Animal manure, including litter and other bedding materials;

c. Vegetative agricultural and silvicultural materials, including logging residues (slash), nut and grain hulls and chaff , bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds.

2.3. Boiler Tune-Up Requirements The permittee is required to perform biennial performance tune-ups on the boilers as follows: [40 CFR 63.11196(a)(1), 63.11201(b), 63.11214(b) and 63.11223]

a. The first biennial tune-up of the new Hurst boiler, Boiler 3, must be conducted no later than 25 months after initial start-up and every two years thereafter. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up.

b. Biennial performance tune-ups of the Wellons boilers, Boilers 1 and 2, must be conducted every two years and no more than 25 months after the previous tune-up, unless not operated in the biennium..

c. When conducting the tune-ups, the following requirements must be met:

i. Inspect the flame pattern, and adjust the burner as necessary to optimize the flame pattern. Any adjustment must be consistent with the manufacturer's specifications for the burner, if available;

ii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly;

iii. Measure the exhaust concentration of carbon monoxide (ppmv) and oxygen (%), before and after the adjustments are made. Measurements may be made either on a dry or wet basis, as long as it is the same basis before and after any adjustments are made;

iv. Optimize the total emissions of carbon monoxide. This optimization must be consistent with the manufacturer's specifications, if available;

v. If the boiler is not operating on the required date for the tune-up, the tune-up must be conducted within one week of startup; and

vi. The permittee must maintain biennial reports containing the tune-up information as required in Condition 2.3, specifically: [40 CFR 63. 11223(b)(6) (i) through (iii) and 63.11225(c)(2) (i) and (ii)]

2.4. Boiler Tune-Up Reports The permittee must maintain biennial reports containing the tune-up information as required in Condition 2.3, specifically: [40 CFR 63.11223(b)(6) (i) through (iii) and 63.11225(c)(2) (i) and (ii)]

a. Identification of the boiler, date of tune up, the procedures followed for the tune-up, and the manufacturer's specifications to which the boiler was tuned;
b. The CO concentrations in the exhaust in ppmv, and oxygen %, measured before and after the tune-up, as detailed in Condition 2.3.c.iii;
c. A description of any corrective actions taken as part of the tune-up;
d. The type and amount of fuel used each month over the 12 months prior to the biennial tune-up; and
e. These records must be maintained onsite, in a form suitable for inspection and/or submittal upon request.

2.5. Ongoing Reporting, Notification and General Provision Requirements for Boilers

a. The permittee must prepare biennial compliance reports and include the report with the annual reports specified in Condition 6.2. The reports must include the following: [40 CFR 63.11225(b)]
   i. Company name and address;
   ii. Statement by a responsible official, with the 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 of the relevant standards and other requirements of 40 CFR Part 63, Subpart JJJJJJ; and
   iii. If the source experiences any deviations from the applicable requirements during the reporting period, include a description of the deviations, the time periods during which the deviations occurred, and the corrective action taken.
b. Notification 30 days prior to commencing combustion of solid waste including the following information: [40 CFR 63.11225(f)]
   i. The name of the owner or operator of the affected source, the location of the source, the boilers(s) that will commence burning solid waste, and the date of the notice;
   ii. The currently applicable subcategory under 40 CFR Part 63, Subpart JJJJJJ;
   iii. The date on which the boilers became subject to the currently applicable emission limits; and
   iv. The date upon which combusting solid waste will commence.
c. Notification 30 days prior to switching to a fuel(s) that may result in the applicability of a different subcategory or a switch out of 40 CFR Part 63, Subpart JJJJJJ due to a

switch to 100 percent natural gas, including the following information: [40 CFR 63.11225(g)]

i. The name of the owner or operator of the affected source, the location of the source, the boiler(s) that will switch fuels, and the date of the notice;

ii. The currently applicable subcategory under 40 CFR Part 63, Subpart JJJJJJ;

iii. The date on which the boilers became subject to the currently applicable emission limits; and

iv. The date upon which the fuel switch will commence.

d. The General Provisions of 40 CFR Part 63 are incorporated by reference in accordance with Table 8 of Subpart JJJJJJ. [40 CFR 63.11235]

~~3.0 PLANT SITE EMISSION LIMITS~~

~~3.1. Plant Site Emission Limits (PSEL)~~

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

~~Pollutant~~	~~Limit~~	~~Units~~
~~PM~~	~~42~~	~~tons per year~~
~~PM_{10}~~	~~31~~	~~tons per year~~
~~$PM_{2.5}$~~	~~28~~	~~tons per year~~
~~SO_2~~	~~39~~	~~tons per year~~
~~NO_x~~	~~77~~	~~tons per year~~
~~CO~~	~~99~~	~~tons per year~~
~~VOC~~	~~86~~	~~tons per year~~
~~GHG~~	~~81,900~~	~~tons per year~~

~~3.2. Annual Period~~

~~The annual plant site emission limits apply to any 12-consecutive calendar month period.~~

4.0 COMPLIANCE DEMONSTRATION AND SOURCE TESTING

4.1. Testing Requirements

The permittee must meet the following testing requirements, unless otherwise approved in writing by DEQ:

a. Boiler 3: Within 60 days after achieving the maximum production rate at which Boiler 3 will be operated, but not later than 180 days after initial startup of the boiler, and during a second time prior to the end of the fourth year of the permit, the permittee must conduct performance tests of Boiler 3 in accordance with 40 CFR Part 60.8. The permittee must demonstrate that Boiler 3 is capable of operating at maximum operating capacity in compliance with Conditions 1.1, 1.2 and 2.1. Pollutant parameters to be tested are identified in Condition 4.1.d.

b. Torrefier, Belt Dryer, and the HTC System: Within 6 months of completed construction and start-up of the torrefaction system, and a second time prior to the end of the fourth year of the permit, the permittee must conduct emission tests of the Torrefier, Belt Dryer, and the HTC condenser blow tank vent. The permittee must demonstrate that the Torrefier and Belt Dryer are capable of operating at maximum operating capacity in compliance with Conditions 1.1 and 1.2. If significant levels of sulfuric acid emissions are detected from the HTC system, this permit may be reopened to add requirements to address the emissions. Pollutant parameters to be tested are identified in Condition 4.1 d.

c. Boilers 1 and 2: Within the first two years of the permit, the permittee must conduct emission tests of Boilers 1 and 2 to demonstrate that each is capable of operating at maximum operating capacity in compliance with Conditions 1.1 and 1.2. Pollutant parameters to be tested are identified in Condition 4.1.d.

d. Following are the emission source pollutant test parameters unless otherwise approved by DEQ in writing:

Emission Sources	Pollutant Parameters
Boilers 1 and 2 with multiclone control	PM, NO_x, CO, VOC, and Visible Emissions (VE)
Boiler 3 with ESP control	PM, Filterable PM, NO_x, CO, VOC, and VE
Torrefier	PM, NO_x, CO, VOC, Methanol, and VE
Belt Dryer	PM, VOC, and VE
HTC Condenser Blow Tank Vent	VOC and H_2SO_4

e. The following test methods must be used for the emission parameters unless other methods are approved by DEQ in writing:

i. VE – EPA Method 9;
ii. PM emissions – ODEQ Methods 5 (Boilers and Torrefier) and 7 (Belt Dryer);
iii. Filterable PM emissions – ODEQ Method 5;
iv. NO_x emissions – EPA Method 7E;
v. CO emissions – EPA Method 10;
vi. VOC emissions – EPA Method 25A;
vii. Methanol emissions – NCASI Method 9801; and
viii. H_2SO_4 Emissions – EPA Method 8.

f. Each Method 5 and 7 test run must be conducted using a minimum volume of sample preapproved by DEQ in writing.

g. Each run must be conducted at a minimum of 90% of maximum operating capacity.

h. The following operating data must be monitored and recorded during the source tests unless otherwise preapproved by DEQ:
i. Boilers: Steam production rate, steam temperature, steam pressure rate, fuel species, fuel moisture content and size distribution (percentage less than 1/8-in. size), multiclone pressure drop (Boilers 1 & 2), and ESP operating parameters (amperes and voltage).
ii. Belt Dryer: Species and wood throughput rate and dryer temperatures.
iii. Torrefier: Combustion residence time, torrefier temperatures, and thermal oxidizer temperature.
iv. Bed Dryer: Species and wood throughput rate, dryer and exhaust temperatures.
v. HTC Condenser: Temperature and pressure of batch vessel being tested.

i. Emission factors for all of the emission parameters shall be calculated and reported in units consistent with Condition 11.0.

j. All tests must be conducted in accordance with DEQ's Source Sampling Manual and the approved pretest plan. The pretest plan must be submitted at least 30 days in advance and approved by the Regional Source Test Coordinator. Test data and results must be submitted for review to the Regional Source Test Coordinator within 45 days unless otherwise approved in the pretest plan.

k. Only regular operating staff may adjust the combustion system or production processes and emission control parameters during the source test and within two hours prior to the source test. Any operating adjustments made during the source test, which are a result of consultation with source testing personnel, equipment vendors or consultants, may render the source test invalid.

4.2. Monitoring Plan for Visual Emissions and PM Emissions

Within 60 days of issuance of this permit, the permittee must develop and submit to DEQ for approval, a Site-Specific Monitoring Plan that addresses compliance with the Visual Emissions and Particulate Matter Emissions requirements of Conditions 1.1 and 1.2. Upon DEQ approval of the plan, the permittee must implement the plan.

4.3. Facility-Wide Fugitive Emission Monitoring

The permittee must meet the following facility-wide fugitive emission monitoring requirements:

a. At least once each day, the permittee must inspect areas of potential fugitive particulate emissions and clean up any accumulation of particulate matter.

b. At least once each week for a minimum period of 30 minutes, the permittee must visually survey the plant for any sources of excess fugitive emissions. For the purpose of this survey, excess fugitive emissions are considered visible emissions observed leaving the plant site boundaries. The person conducting the observation must follow the procedures of EPA Method 22.

c. If sources of visible fugitive emissions are identified, the permittee must immediately take corrective action to minimize the fugitive emissions, including but not limited to those actions identified in Condition 1.3.

d. The permittee must maintain a logbook that includes the date and time of the surveys, the results of the surveys, and any corrective actions taken.

4.4. Other Facility-Wide Monitoring

The permittee must monitor the following:

a. Pollution control device operating parameters.

b. All maintenance of pollution control devices, recorded per occurrence.

c. Excess emissions, recorded per occurrence.

d. All operation and production parameters to be reported to DEQ annually as required in Condition 6.2.

~~**4.5. PSEL Compliance Monitoring**~~

~~The permittee must demonstrate compliance with the PSEL for each 12-consecutive calendar month period based on the following calculation for each pollutant except GHGs:~~

~~E = Σ(EF x P)/2000 lbs~~

~~Where,~~

~~E = Pollutant Emissions (ton/yr);~~
~~EF = Pollutant Emission Factor (see Condition 11.0);~~
~~P = Process Production (see Condition 12.0)~~

~~**4.6. Emission Factors**~~

~~The permittee must use the default emission factors provided in Condition 11.0 for calculating pollutant emissions, unless alternative emission factors are approved by DEQ in writing. 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.~~

5.0 RECORDKEEPING REQUIREMENTS

5.1. Operation and Maintenance

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

a. Logs of any repairs or maintenance to all pollution control devices, per occurence.
b. All monthly and annual process/production records identified in Condition 12.0.
c. Monthly emissions calculated in accordance with Condition 4.5.

5.2. 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 as a six-minute block average. If there is an ongoing excess emission caused by an upset or breakdown, the permittee must cease operation, unless continued operation is approved by DEQ in accordance with OAR 340-214-0330(4).

5.3. Complaint Log

The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

5.4. 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.

6.0 REPORTING REQUIREMENTS

6.1. Excess Emissions

The permittee must notify DEQ of excess emissions events if the excess emission is of a nature that could endanger public health.

a. Such notice must be provided 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 9.3 by email, telephone, facsimile or in person.

b. Unless otherwise directed by DEQ, the permittee must notify 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.

6.2. Annual Report

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

a. Operating parameters:
   i. Annual sawmill production (Mbdft/yr).
   ii. Annual quantity of lumber dried in kilns by species (Mbdft/yr).
   iii. Monthly and annual steam production for each boiler (Mlb-steam/mo and Mlb-steam/yr).
   iv. Torrefier annual wood throughput (tons at finished moisture content) and annual hours operated (hr/yr).
   v. Belt Dryer annual wood throughput (dried tons/yr) and annual hours operated (hr/yr).
   vi. HTC system annual green wood throughput (tons/yr) and annual hours operated (hr/yr).
   vii. Annual white wood pellet production (tons/yr).
   viii. Annual Planer Shavings throughput (BDT/yr).

b. Biennial performance tune-up report of boilers in accordance with Condition 2.5.a.

c. Number and duration of visible emission excursions and corrective actions taken.

d. Any proposed updates or revisions to the site-specific monitoring plan identified in Condition 4.2.

e. Monthly and annual days of water dust suppression applied to unpaved roads.

f. A summary of annual pollutant emissions determined each month in accordance with Condition 4.5.

g. Summary of annual greenhouse gases (CO_2e) in accordance with Condition 6.3.
h. Records of all planned and unplanned excess emissions events.
i. Summary of complaints relating to air quality received by permittee during the year.
j. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.
k. List major maintenance performed on pollution control equipment.

~~**6.3. Greenhouse Gas Registration and Reporting**~~ ~~If the calendar year emission rate of greenhouse gases (CO_2e) is greater than or equal to 2,756 tons (2,500 metric tons), the permittee must register and report its greenhouse gas emissions with DEQ in accordance with OAR 340-215.~~

~~**6.4. Notice of Change of Ownership or Company Name**~~ ~~The permittee must notify DEQ in writing using a Departmental "Transfer Application" form 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.~~

~~**6.5. Construction or Modification Notices**~~ ~~The permittee must notify DEQ in writing using a Departmental "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 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.~~

~~**6.6. Completed Construction or Modification Notices**~~ ~~The permittee must notify DEQ in writing within seven (7) days of start-up following completion of construction of new or modification of an existing stationary pollution source.~~

Pages 15 - 20 redacted -- outside the scope of the SIP