

United States Environmental Protection Agency
Region 10, Office of Air, Waste and Toxics
AWT-150
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Permit Number: R10T5120000
Issued: September 29, 2015
Effective: September 29, 2015
Expiration: September 29, 2020
AFS Plant I.D. Number: 53-077-00072

Title V Air Quality Operating Permit Initial Permit

In accordance with the provisions of Title V of the Clean Air Act (42 U.S.C. 7401 *et seq.*), 40 CFR Part 71 and other applicable rules and regulations,

Yakama Forest Products

is authorized to operate air emission units and to conduct other air pollutant emitting activities in accordance with the conditions listed in this permit. This source is authorized to operate in the following location:

Location: Yakama Reservation
251 Medicine Valley Road
White Swan, Washington

Responsible Official: Ron Holen, General Manager
Yakama Forest Products
3191 Wesley Road
P.O. Box 489
White Swan, Washington 98952
Phone: 509-874-2901 Ext 101, Fax: 509-874-8884
rholen@yakama-forest.com

The United States Environmental Protection Agency has also developed a statement of basis that describes the bases for conditions contained in this permit.


 Donald A. Dossett, P.E., Manager Air Permits and Diesel Unit Office of Air, Waste and Toxics U.S. EPA, Region 10	<u>SEPT. 29, 2015</u> Date
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1. Source Information and Emission Units

The Yakama Forest Products facility is made up of two sawmills (large log mill and small log mill) that produce dry dimensional lumber from logs. The emission units are listed in Table 1.

Table 1: Emission Units & Control Devices

EU ID	Emission Unit Description	Control Device
SLM Boilers	In the small log mill, two propane fired boilers supply steam to the small log mill kilns: Superior Model No. 6-5-3000, Serial No. 13796; Superior Model No. 7-4-2500, Serial No. 14159. Boiler 1 was installed in August 1998; boiler 2 was installed in 2001. Heat input capacity is 24.92 million Btu/hr each and maximum steam production is 20,700 and 21,562 lb/hr, respectively. Both will be converted from oil-firing to propane-firing prior to restarting.	None
LLM Boilers	In the large log mill, two propane fired boilers supply steam to the large log mill kilns: Superior Model No. 6-5-5000 and Serial Nos. 14921 and 14922. Both were installed in 2002. Heat input capacity is 29.1 million Btu/hr each (after de-rating in February 2009) and maximum steam production is approximately 23,252 lb/hr each. Both were converted from oil to propane firing in 2014.	None
SLM Kilns	In the small log mill, four indirectly heated Coe brand kilns dry lumber. Kilns #1-3 are 65-foot long single track kilns installed in 1997; kiln #4 is 100-foot long double track kiln installed in 2001. Approximate total annual capacity per wood species for all small log mill kilns is 88.8 mmbf (Grand Fir), 80.6 mmbf (Douglas Fir) and 61.9 mmbf (pine).	None
LLM Kilns	In the large log mill, seven indirectly heated Coe brand kilns dry lumber. Kilns #5-9 are 100-foot long single track kilns installed in 2002; kilns #10-11 are 100-foot long double track kilns installed in 2005. Approximate total annual capacity per wood species for all large log mill kilns is 116.5 mmbf (Grand Fir), 116.4 mmbf (Douglas Fir) and 77.2 mmbf (pine).	None
SLM Cyclone	In the small log mill, Cyclone C-1 separates shavings from a pneumatic handling system into Bin SH-1.	None
LLM Cyclones	In the large log mill, Cyclones C-2, C-3 and C-4 separate sawdust, green chips and shavings, respectively, from pneumatic handling systems onto the hogged fuel conveyor, into Bin GC-2 and into Bin SH-2, respectively. Approximately 2% of the sawdust produced in the large log mill is moved pneumatically.	None
SLM Bins	In the small log mill, Bins HF-1, SD-1, GC-1, DC-1 store hog fuel, sawdust, green chips and dry chips, respectively, received from conveyor belts; Bin SH-1 stores shavings received from Cyclone C-1. All five bins unload to trucks.	None

EU ID	Emission Unit Description	Control Device
LLM Bins	In the large log mill, Bins HF-2, SD-2 and DC-2 store hog fuel and sawdust, only sawdust, and dry chips, respectively, received from conveyors belts; Bins GC-2 and SH-2 store green chips and shavings, respectively, received from Cyclones C-3 and C-4. Bin HF-2 receives approximately 2% of the sawdust produced in the large log mill while Bin SD-2 receives approximately 98%. All five bins unload to trucks.	None
LLM Tanks	In the large log mill, two storage tanks store propane fuel. Capacity is 30,000 gallon each. Both were installed in 2014.	None
MNFA	In both mills, miscellaneous non-fugitive activities generate emission inside buildings and are not described in other emission units.	Generated inside buildings
MFA	In both mills, miscellaneous fugitive activities generate emissions outside buildings and are not described in other emission units.	None
PT	In both mills, plant traffic by vehicles on paved and unpaved roads generate fugitive dust emissions.	Watering

2. Standard Terms and Conditions

- 2.1. Terms not otherwise defined in this permit have the meaning assigned to them in the referenced regulations. The language of the cited regulation takes precedence over paraphrasing except the text of terms specified pursuant to any of the following sections is directly enforceable: section 304(f)(4) of the Federal Clean Air Act (CAA), 40 CFR §§ 71.6(a)(3)(i)(B) and (C), 71.6(a)(3)(ii), and 71.6(b), or any other term specifically identified as directly enforceable.

Compliance with the Permit

- 2.2. The permittee must comply with all conditions of this Part 71 permit. All terms and conditions of this permit are enforceable by the EPA and citizens under the Clean Air Act. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [40 CFR § 71.6(a)(6)(i)]
- 2.3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [40 CFR § 71.6(a)(6)(ii)]

Permit Shield

- 2.4. Compliance with the terms and conditions of this permit shall be deemed compliance with the applicable requirements specifically listed in this permit as of the date of permit issuance. [40 CFR § 71.6(f)(1)]
- 2.5. Nothing in this permit shall alter or affect the following:
- 2.5.1. The provisions of section 303 of the Clean Air Act (emergency orders), including the authority of the EPA under that section;
 - 2.5.2. The liability of a permittee for any violation of applicable requirements prior to or at the time of permit issuance;

2.5.3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Clean Air Act; or

2.5.4. The ability of the EPA to obtain information under section 114 of the Clean Air Act.

[40 CFR § 71.6(f)(3)]

Other Credible Evidence

2.6. For the purpose of submitting compliance certifications in accordance with Condition 3.49 of this permit, or establishing whether or not a person has violated or is in violation of any requirement of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[Section 113(a) and 113(e)(1) of the CAA, 40 CFR §§ 51.212, 52.12 and 52.33]

Permit Actions

2.7. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

[40 CFR § 71.6(a)(6)(iii)]

2.8. The permit may be reopened by the EPA and the permit revised prior to expiration under any of the circumstances described in 40 CFR § 71.7(f).

[40 CFR § 71.7(f)]

Permit Expiration and Renewal

2.9. This permit shall expire on the expiration date on page one of this permit or on an earlier date if the source is issued a Part 70 or Part 71 permit by a permitting authority under an EPA approved or delegated permit program.

[40 CFR § 71.6(a)(11)]

2.10. Expiration of this permit terminates the permittee's right to operate unless a timely and complete permit renewal application has been submitted at least six months, but not more than 18 months, prior to the date of expiration of this permit.

[40 CFR §§ 71.5(a)(1)(iii), 71.7(b) and 71.7(c)(1)(ii)]

2.11. If the permittee submits a timely and complete permit application for renewal, consistent with 40 CFR § 71.5(a)(2), but the EPA has failed to issue or deny the renewal permit, then all the terms and conditions of the permit, including any permit shield granted pursuant to 40 CFR § 71.6(f) shall remain in effect until the renewal permit has been issued or denied. This permit shield shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the EPA any additional information identified as being needed to process the application.

[40 CFR §§ 71.7(c)(3) and 71.7(b)]

Off-Permit Changes

2.12. The permittee is allowed to make certain changes without a permit revision, provided that the following requirements are met:

2.12.1. Each change is not addressed or prohibited by this permit;

2.12.2. Each change meets all applicable requirements and does not violate any existing permit term or condition;

2.12.3. The changes are not changes subject to any requirement of 40 CFR Parts 72 through 78 or modifications under any provision of Title I of the Clean Air Act;

2.12.4. The permittee provides contemporaneous written notice to the EPA of each change, except for changes that qualify as insignificant activities under 40 CFR § 71.5(c)(11), that

describes each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change;

- 2.12.5. The changes are not covered by a permit shield provided under 40 CFR § 71.6(f) and Conditions 2.4 and 2.5 of this permit; and
- 2.12.6. The permittee keeps a record describing all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes.

[40 CFR § 71.6(a)(12)]

Emissions Trading and Operational Flexibility

- 2.13. The permittee is allowed to make a limited class of changes under section 502(b)(10) of the Clean Air Act within this permitted facility that contravene the specific terms of this permit without applying for a permit revision, provided:
 - 2.13.1. The changes do not exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions);
 - 2.13.2. The changes are not modifications under any provision of Title I of the Clean Air Act;
 - 2.13.3. The changes do not violate applicable requirements;
 - 2.13.4. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;
 - 2.13.5. The permittee sends a notice to the EPA, at least seven days in advance of any change made under this provision, that describes the change, when it will occur and any change in emissions and identifies any permit terms or conditions made inapplicable as a result of the change and the permittee attaches each notice to its copy of this permit; and
 - 2.13.6. The changes are not covered by a permit shield provided under 40 CFR § 71.6(f) and Conditions 2.4 and 2.5 of this permit.

[40 CFR § 71.6(a)(13)(i)]

- 2.14. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

[40 CFR § 71.6(a)(8)]

Severability

- 2.15. The provisions of this permit are severable, and in the event of any challenge to any portion of this permit, or if any portion is held invalid, the remaining permit conditions shall remain valid and in force.

[40 CFR § 71.6(a)(5)]

Property Rights

- 2.16. This permit does not convey any property rights of any sort, or any exclusive privilege.

[40 CFR § 71.6(a)(6)(iv)]

3. General Requirements

General Compliance Schedule

- 3.1. For applicable requirements with which the source is in compliance, the permittee will continue to comply with such requirements.

[40 CFR §§ 71.6(c)(3) and 71.5(c)(8)(iii)(A)]

- 3.2. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. [40 CFR §§ 71.6(c)(3) and 71.5(c)(8)(iii)(B)]

Inspection and Entry

- 3.3. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the EPA or an authorized representative to perform the following:
- 3.3.1. Enter upon the permittee's premises where a Part 71 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
 - 3.3.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
 - 3.3.3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - 3.3.4. As authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

[40 CFR § 71.6(c)(2)]

Open Burning Restrictions

- 3.4. Except as exempted in 40 CFR § 49.131(c), the permittee shall not openly burn, or allow the open burning of, the following materials:
- 3.4.1. Garbage;
 - 3.4.2. Dead animals or parts of dead animals;
 - 3.4.3. Junked motor vehicles or any materials resulting from a salvage operation;
 - 3.4.4. Tires or rubber materials or products;
 - 3.4.5. Plastics, plastic products, or styrofoam;
 - 3.4.6. Asphalt or composition roofing, or any other asphaltic material or product;
 - 3.4.7. Tar, tarpaper, petroleum products, or paints;
 - 3.4.8. Paper, paper products, or cardboard other than what is necessary to start a fire or that is generated at single-family residences or residential buildings with four or fewer dwelling units and is burned at the residential site;
 - 3.4.9. Lumber or timbers treated with preservatives;
 - 3.4.10. Construction debris or demolition waste;
 - 3.4.11. Pesticides, herbicides, fertilizers, or other chemicals;
 - 3.4.12. Insulated wire;
 - 3.4.13. Batteries;
 - 3.4.14. Light bulbs;
 - 3.4.15. Materials containing mercury (e.g., thermometers);
 - 3.4.16. Asbestos or asbestos-containing materials;

- 3.4.17. Pathogenic wastes;
- 3.4.18. Hazardous wastes; or
- 3.4.19. Any material other than natural vegetation that normally emits dense smoke or noxious fumes when burned.

[40 CFR §§ 49.131(c) and (d)(1)]

3.5. Open burning shall be conducted as follows:

- 3.5.1. All materials to be openly burned shall be kept as dry as possible through the use of a cover or dry storage;
- 3.5.2. Before igniting a burn, noncombustibles shall be separated from the materials to be openly burned to the greatest extent practicable;
- 3.5.3. Natural or artificially induced draft shall be present, including the use of blowers or air curtain incinerators where practicable;
- 3.5.4. To the greatest extent practicable, materials to be openly burned shall be separated from the grass or peat layer; and
- 3.5.5. A fire shall not be allowed to smolder.

[40 CFR § 49.131(e)(1)]

3.6. Except for exempted fires set for cultural or traditional purposes, a person shall not initiate any open burning when:

- 3.6.1. The Regional Administrator has declared a burn ban; or
- 3.6.2. An air stagnation advisory has been issued or an air pollution alert, warning or emergency has been declared by the Regional Administrator.

[40 CFR §§ 49.131(d)(2), (d)(3) and (e)(2), and 49.137(c)(4)(i)]

3.7. Except for exempted fires set for cultural or traditional purposes, any person conducting open burning when such an advisory is issued or declaration is made shall either immediately extinguish the fire, or immediately withhold additional material such that the fire burns down.

[40 CFR §§ 49.131(e)(3) and 49.137(c)(4)(ii)]

3.8. Nothing in this section exempts or excuses any person from complying with applicable laws and ordinances of local fire departments and other governmental jurisdictions.

[40 CFR § 49.131(d)(4)]

Visible Emissions Limits

3.9. Except as provided for in Conditions 3.10 and 3.11, the visible emissions from any air pollution source that emits, or could emit, particulate matter or other visible air pollutants shall not exceed 20% opacity, averaged over any consecutive six-minute period. Compliance with this emission limit is determined as follows:

- 3.9.1. Using EPA Reference Method 9 found in Appendix A of 40 CFR Part 60; or
- 3.9.2. Alternatively, using a continuous opacity monitoring system that complies with Performance Specification 1 found in Appendix B of 40 CFR Part 60.

[40 CFR §§ 49.124(d)(1) and (e)]

3.10. The requirements of Condition 3.9 do not apply to open burning, agricultural activities, forestry and silvicultural activities, non-commercial smoke houses, sweat houses or lodges, smudge pots,

furnaces and boilers used exclusively to heat residential buildings with four or fewer dwelling units, or emissions from fuel combustion in mobile sources. [40 CFR § 49.124(c)]

3.11. Exception to the visible emission limit in Condition 3.9 includes:

3.11.1. The visible emissions from an air pollution source may exceed the 20% opacity limit if the owner or operator of the air pollution source demonstrates to the Regional Administrator's satisfaction that the presence of uncombined water, such as steam, is the only reason for the failure of an air pollution source to meet the 20% opacity limit.

[40 CFR § 49.124(d)(2)]

Fugitive Particulate Matter Requirements and Recordkeeping

3.12. Except as provided for in Condition 3.17, the permittee shall take all reasonable precautions to prevent fugitive particulate matter emissions and shall maintain and operate all pollutant-emitting activities to minimize fugitive particulate matter emissions. Reasonable precautions include, but are not limited to the following:

3.12.1. Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, grading of roads, or clearing of land;

3.12.2. Application of asphalt, oil (but not used oil), water, or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces that can create airborne dust;

3.12.3. Full or partial enclosure of materials stockpiles in cases where application of oil, water, or chemicals is not sufficient or appropriate to prevent particulate matter from becoming airborne;

3.12.4. Implementation of good housekeeping practices to avoid or minimize the accumulation of dusty materials that have the potential to become airborne, and the prompt cleanup of spilled or accumulated materials;

3.12.5. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;

3.12.6. Adequate containment during sandblasting or other similar operations;

3.12.7. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; and

3.12.8. The prompt removal from paved streets of earth or other material that does or may become airborne.

[40 CFR §§ 49.126(d)(1) and (2)]

3.13. Once each calendar year, during typical operating conditions and meteorological conditions conducive to producing fugitive dust, the permittee shall survey the facility to determine the sources of fugitive particulate matter emissions. For new sources or new operations, a survey shall be conducted within 30 days after commencing operation.

3.13.1. The permittee shall record the results of the survey, including the date and time of the survey and identification of any sources of fugitive particulate matter emissions found; and

3.13.2. If sources of fugitive particulate matter emissions are present, the permittee shall determine the reasonable precautions that will be taken to prevent fugitive particulate matter emissions.

[40 CFR §§ 49.126(e)(1)(i) and (ii)]

3.14. The permittee shall prepare, and update as necessary following each survey, a written plan that specifies the reasonable precautions that will be taken and the procedures to be followed to prevent fugitive particulate matter emissions, including appropriate monitoring and recordkeeping.

3.14.1. For construction or demolition activities, a written plan shall be prepared prior to commencing construction or demolition.

[40 CFR § 49.126(e)(1)(iii)]

3.15. The permittee shall implement the written plan, and maintain and operate all sources to minimize fugitive particulate matter emissions. [40 CFR § 49.126(e)(1)(iv)]

3.16. Efforts to comply with this section cannot be used as a reason for not complying with other applicable laws and ordinances. [40 CFR § 49.126(e)(3)]

3.17. The requirements of Conditions 3.12 through 3.16 do not apply to open burning, agricultural activities, forestry and silvicultural activities, sweat houses or lodges, non-commercial smoke houses, or activities associated with single-family residences or residential buildings with four or fewer dwelling units. [40 CFR § 49.126(c)]

Other Work Practice Requirements and Recordkeeping

3.18. The permittee shall comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR Part 68 no later than the latest of the following dates:

3.18.1. Three years after the date on which a regulated substance, present above the threshold quantity in a process, is first listed under 40 CFR § 68.130; or

3.18.2. The date on which a regulated substance is first present above a threshold quantity in a process.

[40 CFR § 68.10]

3.19. Except as provided for motor vehicle air conditioners (MVACs) in 40 CFR Part 82, Subpart B, the permittee shall comply with the stratospheric ozone and climate protection standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.

3.19.1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR § 82.156.

3.19.2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR § 82.158.

3.19.3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR § 82.161.

3.19.4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR § 82.166. ("MVAC-like appliance" is defined at 40 CFR § 82.152.)

3.19.5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR § 82.156.

3.19.6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR § 82.166.

[40 CFR Part 82, Subpart F]

- 3.20. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the MVAC, the permittee must comply with all the applicable requirements for stratospheric ozone and climate protection as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. [40 CFR Part 82, Subpart B]
- 3.21. The permittee shall comply with 40 CFR Part 61, Subpart M for asbestos removal and disposal when conducting any renovation or demolition at the facility. [40 CFR Part 61, Subpart M]

General Testing and Associated Recordkeeping and Reporting

- 3.22. In addition to the specific testing requirements contained in the facility and emission unit-specific sections of this permit, the permittee shall comply with the generally applicable testing requirements in Conditions 3.23 through 3.30 whenever conducting a performance test required by this permit unless specifically stated otherwise in this permit. [40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.23. Test Notification. The permittee shall provide the EPA at least 30 days prior notice of any performance test, except as otherwise specified in this permit, to afford the EPA the opportunity to have an observer present. If after 30-day notice for an initially scheduled performance test, there is a delay in conducting the scheduled performance test, the permittee shall notify the EPA as soon as possible of any delay in the original test date, either by providing at least seven days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the EPA by mutual agreement. [40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.24. Test Plan. The permittee shall submit to the EPA a source test plan 30 days prior to any required testing. The source test plan shall include and address the following elements:
- 3.24.1. Purpose and scope of testing;
 - 3.24.2. Source description, including a description of the operating scenarios and mode of operation during testing and including fuel sampling and analysis procedures;
 - 3.24.3. Schedule/dates of testing;
 - 3.24.4. Process data to be collected during the test and reported with the results, including source-specific data identified in the facility or emission unit-specific sections of this permit;
 - 3.24.5. Sampling and analysis procedures, specifically requesting approval for any proposed alternatives to the reference test methods, and addressing minimum test length (e.g., one hour, eight hours, 24 hours, etc.) and minimum sample volume;
 - 3.24.6. Sampling location description and compliance with the reference test methods;
 - 3.24.7. Analysis procedures and laboratory identification;
 - 3.24.8. Quality assurance plan;
 - 3.24.9. Calibration procedures and frequency;
 - 3.24.10. Sample recovery and field documentation;
 - 3.24.11. Chain of custody procedures;
 - 3.24.12. Quality assurance/quality control project flow chart;
 - 3.24.13. Data processing and reporting;

- 3.24.14. Description of data handling and quality control procedures; and
- 3.24.15. Report content and timing.

[40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]

- 3.25. Facilities for performing and observing the emission testing shall be provided that meet the requirements of 40 CFR 60.8(e) and Reference Method 1 (40 CFR Part 60, Appendix A).
[40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.26. Unless the EPA determines in writing that other operating conditions are representative of normal operations or unless specified in the facility or emission unit-specific sections of this permit, the source shall be operated at a capacity of at least 90% but no more than 100% of maximum during all tests.
[40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.27. Only regular operating staff may adjust the processes or emission control devices during or within two hours prior to the start of a source test. Any operating adjustments made during a source test, that are a result of consultation during the tests with source testing personnel, equipment vendors, or consultants, may render the source test invalid.
[40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.28. Each source test shall follow the reference test methods specified by this permit and consist of at least three valid test runs.

3.28.1. If the reference test method yields measured pollutant concentration values at an oxygen concentration other than specified in the emission standard, the permittee shall correct the measured pollutant concentration to the oxygen concentration specified in the emission standard by using the following equation:

$$PC_X = PC_M \times \frac{(20.9 - X)}{(20.9 - Y)}$$

Where: PC_X = Pollutant concentration at X percent;
 PC_M = Pollutant concentration as measured;
 X = Oxygen concentration specified in the standard; and
 Y = Measured average volumetric oxygen concentration.

[40 CFR § 71.6(a)(3)(i)(B)]

- 3.28.2. Source test emission data shall be reported as the arithmetic average of all valid test runs and in the terms of any applicable emission limit, unless otherwise specified in the facility or emission unit-specific sections of this permit.
[40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.29. Test Records. For the duration of each test run (unless otherwise specified), the permittee shall record the following information:
 - 3.29.1. All data which is required to be monitored during the test in the facility or emission unit-specific sections of this permit; and
 - 3.29.2. All continuous monitoring system data which is required to be routinely monitored in the facility or emission unit-specific sections of this permit for the emission unit being tested.
[40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.30. Test Reports. Unless the EPA approves in writing a different due date, emission test reports shall be submitted to the EPA within 60 days of completing any emission test required by this permit along with data required to be recorded in Condition 3.29 above.
[40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]

General Recordkeeping

3.31. Monitoring Records. The permittee shall keep records of required monitoring information that include the following:

3.31.1. The date, place, and time of sampling or measurements;

3.31.2. The date(s) analyses were performed;

3.31.3. The company or entity that performed the analyses;

3.31.4. The analytical techniques or methods used;

3.31.5. The results of such analyses; and,

3.31.6. The operating conditions as existing at the time of sampling or measurement.

[40 CFR § 71.6(a)(3)(ii)(A)]

3.32. Off-Permit Change Records. The permittee shall keep a record describing all off-permit changes allowed to be made under Condition 2.12 that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes.

[40 CFR § 71.6(a)(12)]

3.33. Open Burning Records. For any open burning allowed under Conditions 3.4 through 3.8, the permittee shall document the following:

3.33.1. The date that burning was initiated;

3.33.2. The duration of the burn;

3.33.3. The measures taken to comply with each provision of Condition 3.5; and

3.33.4. The measures taken to ensure that materials prohibited in Condition 3.4 were not burned.

[40 CFR § 71.6(a)(3)(i)(B)]

3.34. Fee Records. The permittee shall retain in accordance with the provisions of Condition 3.35 of this permit, all work sheets and other materials used to determine fee payments. Records shall be retained for five years following the year in which the emissions data is submitted.

[40 CFR § 71.9(i)]

3.35. Records Maintenance and Retention. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this permit recorded in a permanent form suitable for inspection. The permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, recording, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

[40 CFR §§ 71.6(a)(3), 71.6(c)(1), 49.126(e)(1)(v) and 49.130(f)(2)]

General Reporting

3.36. Additional Information. The permittee shall furnish to the EPA, within a reasonable time, any information that the EPA may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the EPA copies of records that are required to be kept pursuant to the terms of the permit, including information claimed to be confidential.

Information claimed to be confidential must be accompanied by a claim of confidentiality according to the provisions of 40 CFR Part 2, Subpart B. [40 CFR §§ 71.6(a)(6)(v) and 71.5(a)(3)]

- 3.37. Corrections. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. [40 CFR § 71.5(b)]
- 3.38. Off-Permit Change Report. The permittee shall provide contemporaneous written notice to the EPA of each off-permit change allowed to be made under Condition 2.12, except for changes that qualify as insignificant activities under 40 CFR § 71.5(c)(11). The written notice shall describe each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change. [40 CFR § 71.6(a)(12)]
- 3.39. Section 502(b)(10) Change Report. The permittee is required to send a notice to the EPA at least 7 days in advance of any section 502(b)(10) change allowed to be made under Condition 2.13. The notice must describe the change, when it will occur and any change in emissions, and identify any permit terms or conditions made inapplicable as a result of the change. The permittee shall attach each notice to its copy of this permit. [40 CFR § 71.6(a)(13)(i)(A)]
- 3.40. Address. Unless otherwise specified in this permit, any documents required to be submitted under this permit, including reports, test data, monitoring data, notifications, compliance certifications, fee calculation worksheets, and applications for renewals and permit modifications shall be submitted to the EPA address below. A copy of each document submitted to the EPA that does not contain confidential business information shall be sent to the Tribal address below:

Original documents go to the EPA at:

Part 71 Air Quality Permits
U.S. EPA - Region 10, AWT-150
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

Copies go to Tribe at:

Air Program Manager
The Yakama Nation
P.O. Box 151
Topenish, Washington 98948

[40 CFR §§ 71.5(d), 71.6(c)(1) and 71.9(h)(2)]

Part 71 Emission and Fee Reporting

- 3.41. Part 71 Annual Emission Report. No later than the date specified in Condition 4.1 of each year, the permittee shall submit to the EPA an annual report of actual emissions for the preceding calendar year. [40 CFR § 71.9(h)(1)]
- 3.41.1. “Actual emissions” means the actual rate of emissions in tons per year of any “regulated pollutant (for fee calculation),” as defined in 40 CFR § 71.2, emitted from a Part 71 source over the preceding calendar year. Actual emissions shall be calculated using each emissions unit’s actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year. [40 CFR § 71.9(c)(6)]
- 3.41.2. Actual emissions shall be computed using methods required by the permit for determining compliance. [40 CFR § 71.9(h)(3)]
- 3.41.3. Actual emissions shall include fugitive emissions. [40 CFR § 71.9(c)(1)]
- 3.42. Part 71 Fee Calculation Worksheet. Based on the annual emission report required in Condition 3.41 and no later than the date specified in Condition 4.1 of each year, the permittee shall submit to the EPA a fee calculation worksheet (blank forms provided by the EPA) and a photocopy of each fee payment check (or other confirmation of actual fee paid). [40 CFR §§ 71.9(c)(1), 71.9(e)(1) and 71.9(h)(1)]

- 3.42.1. The annual emissions fee shall be calculated by multiplying the total tons of actual emissions of each “regulated pollutant (for fee calculation),” emitted from the source by the presumptive emission fee (in dollars/ton) in effect at the time of calculation. The presumptive emission fee is revised each calendar year and is available from the EPA prior to the start of each calendar year. [40 CFR § 71.9(c)(1)]
- 3.42.2. The permittee shall exclude the following emissions from the calculation of fees:
- 3.42.2.1 The amount of actual emissions of each regulated pollutant (for fee calculation) that the source emits in excess of 4,000 tons per year;
- 3.42.2.2 Actual emissions of any regulated pollutant (for fee calculation) already included in the fee calculation; and
- 3.42.2.3 The insignificant quantities of actual emissions not required to be listed or calculated in a permit application pursuant to 40 CFR § 71.5(c)(11). [40 CFR § 71.9(c)(5)]
- 3.43. Part 71 Annual Fee Payment. No later than the date specified in Condition 4.1 of each year, the permittee shall submit to the EPA full payment of the annual permit fee based on the fee calculation worksheet required in Condition 3.42. [40 CFR §§ 71.9(a), 71.9(c)(1) and 71.9(h)(1)]
- 3.43.1. The fee payment and a completed fee filing form shall be sent to:
- U.S.EPA
FOIA and Miscellaneous Payments
Cincinnati Finance Center
P. O. Box 979078
St Louis, MO 63197-9000
- [40 CFR § 71.9(k)(2)]
- 3.43.2. The fee payment shall be in United States currency and shall be paid by money order, bank draft, certified check, corporate check, or electronic funds transfer payable to the order of the U.S. Environmental Protection Agency. [40 CFR § 71.9(k)(1)]
- 3.43.3. The permittee, when notified by the EPA of additional amounts due, shall remit full payment within 30 days of receipt of an invoice from the EPA. [40 CFR § 71.9(j)(2)]
- 3.43.4. If the permittee thinks an EPA assessed fee is in error and wishes to challenge such fee, the permittee shall provide a written explanation of the alleged error to the EPA along with full payment of the EPA assessed fee. [40 CFR § 71.9(j)(3)]
- 3.43.5. Failure of the permittee to pay fees in a timely manner shall subject the permittee to assessment of penalties and interest in accordance with 40 CFR § 71.9(l). [40 CFR § 71.9(l)]
- 3.44. The annual emission report and fee calculation worksheet (and photocopy of each fee payment check), required in Conditions 3.41 and 3.42, shall be submitted to the EPA at the address listed in Condition 3.40 of this permit.¹ [40 CFR § 71.9(k)(1)]
- 3.45. The annual emission report and fee calculation worksheet (and photocopy of each fee payment check), required in Conditions 3.41 and 3.42, shall be certified by a responsible official in accordance with Condition 3.50 of this permit. [40 CFR § 71.9(h)(2)]

¹ The permittee should note that an annual emissions report, required at the same time as the fee calculation worksheet by 40 CFR § 71.9(h), has been incorporated into the fee calculation worksheet.

Annual Registration

3.46. The permittee shall submit an annual registration report that consists of estimates of the total actual emissions from the air pollution source for the following air pollutants: PM, PM₁₀, PM_{2.5}, SO_x, NO_x, CO, VOC, lead and lead compounds, ammonia, fluorides (gaseous and particulate), sulfuric acid mist, hydrogen sulfide, total reduced sulfur, and reduced sulfur compounds, including all calculations for the estimates. Emissions shall be calculated using the actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year. [40 CFR §§ 49.138(e)(3)(xii), (e)(4) and (f)]

3.46.1. The emission estimates required by Condition 3.46 shall be based upon actual test data or, in the absence of such data, upon procedures acceptable to the Regional Administrator. Any emission estimates submitted to the Regional Administrator shall be verifiable using currently accepted engineering criteria. The following procedures are generally acceptable for estimating emissions from air pollution sources:

3.46.1.1 Source-specific emission tests;

3.46.1.2 Mass balance calculations;

3.46.1.3 Published, verifiable emission factors that are applicable to the source;

3.46.1.4 Other engineering calculations; or

3.46.1.5 Other procedures to estimate emissions specifically approved by the Regional Administrator.

[40 CFR §§ 49.138(e)(4) and (f)]

3.46.2. The annual registration report shall be submitted with the annual emission report and fee calculation worksheet required by Conditions 3.41 and 3.42 of this permit. The permittee may submit a single combined report provided that the combined report clearly identifies which emissions are the basis for the annual registration report, the Part 71 annual emission report, and the Part 71 fee calculation worksheet. All registration information and reports shall be submitted on forms provided by the Regional Administrator.

[40 CFR §§ 49.138(d) and (f)]

Periodic and Deviation Reporting

3.47. Semi-Annual Monitoring Report. The permittee shall submit to the EPA reports of any required monitoring for each six month reporting period from July 1 to December 31 and from January 1 to June 30. All reports shall be submitted to the EPA and shall be postmarked by the 60th day following the end of the reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with Condition 3.50. [40 CFR § 71.6(a)(3)(iii)(A)]

3.48. Deviation Report. The permittee shall promptly report to the EPA, by telephone or facsimile, deviations from permit conditions, including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. The report shall be made using the following numbers:

Telephone: (206) 553-1331

Attn: Part 71 Deviation Report

[40 CFR § 71.6(a)(3)(iii)(B)]

3.48.1. For the purposes of Conditions 3.47 and 3.48, deviation means any situation in which an emissions unit fails to meet a permit term or condition. A deviation is not always a violation. A deviation can be determined by observation or through review of data

obtained from any testing, monitoring, or record keeping required by this permit. For a situation lasting more than 24 hours, each 24-hour period is considered a separate deviation. Included in the meaning of deviation are any of the following:

- 3.48.1.1 A situation where emissions exceed an emission limitation or standard;
- 3.48.1.2 A situation where process or emissions control device parameter values indicate that an emission limitation or standard has not been met;
- 3.48.1.3 A situation in which observations or data collected demonstrate noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit (including indicators of compliance revealed through parameter monitoring);
- 3.48.1.4 A situation in which any testing, monitoring, recordkeeping or reporting required by this permit is not performed or not performed as required;
- 3.48.1.5 A situation in which an exceedance or an excursion, as defined in 40 CFR Part 64, occurs; and
- 3.48.1.6 Failure to comply with a permit term that requires submittal of a report.

[40 CFR § 71.6(a)(3)(iii)(C)]

3.48.2. For the purpose of Condition 3.48 of the permit, prompt is defined as any definition of prompt or a specific time frame for reporting deviations provided in an underlying applicable requirement as identified in this permit. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:

- 3.48.2.1 For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence;
- 3.48.2.2 For emissions of any regulated pollutant excluding those listed in Condition 3.48.2.1 above, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours of the occurrence; or
- 3.48.2.3 For all other deviations from permit requirements, the report shall be submitted with the semi-annual monitoring report required in Condition 3.47.

[40 CFR § 71.6(a)(3)(iii)(B)]

3.48.3. Within ten working days of the occurrence of a deviation as provided in Condition 3.48.2.1 or 3.48.2.2 above, the permittee shall also submit a written notice, which shall include a narrative description of the deviation and updated information as listed in Condition 3.48, to the EPA, certified consistent with Condition 3.50 of this permit.

[40 CFR §§ 71.6(a)(3)(i)(B) and (iii)(B)]

Annual Compliance Certification

3.49. The permittee shall submit to the EPA a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, postmarked by February 28 of each year and covering the permit or permits in effect during the previous calendar year. The compliance certification shall be certified as to truth, accuracy, and completeness by a responsible official consistent with Condition 3.50 of this permit.

[40 CFR § 71.6(c)(5)]

- 3.49.1. The annual compliance certification shall include the following:
- 3.49.1.1 The identification of each permit term or condition that is the basis of the certification;
 - 3.49.1.2 The identification of the method(s) or other means used by the permittee for determining the compliance status with each term and condition during the certification period. Such methods and other means shall include, at a minimum, the methods and means required in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Clean Air Act, which prohibits knowingly making a false certification or omitting material information; and
 - 3.49.1.3 The status of compliance with each term and condition of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred.

[40 CFR § 71.6(c)(5)(iii)]

Document Certification

- 3.50. Any document required to be submitted under this permit shall be certified by a responsible official as to truth, accuracy, and completeness. Such certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [40 CFR §§ 71.5(d), 71.6(c)(1) and 71.9(h)(2)]

Permit Renewal

- 3.51. The permittee shall submit a timely and complete application for permit renewal at least six months, but not more than 18 months, prior to the date of expiration of this permit. [40 CFR §§ 71.5(a)(1)(iii), 71.7(b) and 71.7(c)(1)(ii)]
- 3.52. The application for renewal shall include the current permit number, a description of permit revisions and off-permit changes that occurred during the permit term and were not incorporated into the permit during the permit term, any applicable requirements that were promulgated and not incorporated into the permit during the permit term, and other information required by the application form. [40 CFR §§ 71.5(a)(2) and 71.5(c)(5)]

4. Facility-Specific Requirements

Fees and Emission Reports Due Date

- 4.1. Unless otherwise specified, fees and emission reports required by this permit are due annually on April 1. [40 CFR §§ 71.9(a) and 71.9(h)]

Fuel Sulfur Limits

- 4.2. The permittee shall not sell, distribute, use, or make available for use any gaseous fuel that contains more than 1.1 grams of sulfur per dry standard cubic meter of gaseous fuel. [40 CFR § 49.130(d)(8)]

- 4.2.1. Compliance with the sulfur limit is determined using ASTM methods D1072-90 (Reapproved 1999), D3246-96, D4084-94 (Reapproved 1999), D5504-01, D4468-85 (Reapproved 2000), D2622-03, and D6228-98 (Reapproved 2003) (incorporated by reference, see §49.123(e)). [40 CFR § 49.130(e)(4)]

Fuel Sulfur Monitoring and Recordkeeping

- 4.3. The permittee shall either obtain, record, and keep records of the sulfur content from the vendor, or continuously monitor the sulfur content of the fuel gas line using a method that meets the requirements of Performance Specification 5, 7, 9, or 15 (as applicable for the sulfur compounds in the gaseous fuel) of appendix B and appendix F of 40 CFR Part 60. If only purchased natural gas is used, then keep records showing that the gaseous fuel meets the definition of natural gas in 40 CFR 72.2. [40 CFR § 49.130(f)(1)(ii)]

Visible and Fugitive Emission Monitoring and Recordkeeping

- 4.4. Once each calendar quarter, the permittee shall visually survey each emission unit and any other pollutant emitting activity for the presence of visible emissions or fugitive emissions of particulate matter.
- 4.4.1. The observer conducting the visual survey must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting and wind, and the presence of uncombined water on the visibility of emissions (see 40 CFR Part 60, Appendix A, Method 22).
- 4.4.2. For the surveys, the observer shall select a position that enables a clear view of the emission point to be surveyed, that is at least 15 feet, but not more than 0.25 miles, from the emission point, and where the sunlight is not shining directly in the observer's eyes.
- 4.4.3. The observer shall continuously watch for visible emissions from each potential emission point for at least 15 seconds.
- 4.4.4. Any observed visible emissions or fugitive emissions of particulate matter (other than uncombined water) shall be recorded as a positive reading associated with the emission unit or pollutant emitting activity.
- 4.4.5. Surveys shall be conducted while the emission unit or pollutant emitting activity is operating, and during daylight hours. [40 CFR § 71.6(a)(3)(i)(B)]
- 4.5. If the survey conducted pursuant to Condition 4.4 identifies any visible emissions or fugitive emissions of particulate matter, the permittee shall:
- 4.5.1. Immediately upon conclusion of the visual survey in Condition 4.4, investigate the source and reason for the presence of visible emissions or fugitive emissions; and
- 4.5.2. As soon as practicable, take appropriate corrective action. [40 CFR § 71.6(a)(3)(i)(B)]
- 4.6. If the corrective actions undertaken pursuant to Condition 4.5.2 do not eliminate the visible or fugitive emissions, the permittee shall within 24 hours of the visual survey in Condition 4.4 determine the opacity of the emissions in question, for a 30-minute duration, using the procedures specified in Condition 3.9.1. [40 CFR § 71.6(a)(3)(i)(B)]
- 4.7. If any 6-minute average opacity determined pursuant to Condition 4.6 or 4.8 is greater than 20%, the permittee shall determine the opacity of the emissions in question daily, for a 30-minute

duration each day, using the procedures specified in Condition 3.9.1 until no 6-minute average opacity is greater than 20% for two consecutive days. [40 CFR § 71.6(a)(3)(i)(B)]

- 4.8. If the opacity determination required in Condition 4.6, or if two consecutive daily opacity determinations required by Condition 4.7, indicate no 6-minute average opacity greater than 20%, the permittee shall determine opacity of the emissions in question weekly, for a 30-minute duration each week, for three additional weeks using the procedures specified in Condition 3.9.1. [40 CFR § 71.6(a)(3)(i)(B)]

- 4.9. The permittee shall maintain records of the following:

- 4.9.1. Details of each visual survey, including date, time, observer and results for each emission unit and any other pollutant emitting activity;
- 4.9.2. Date, time and type of any investigation conducted pursuant to Condition 4.5.1;
- 4.9.3. Findings of the investigation, including the reasons for the presence of visible emissions or fugitive emissions of particulate matter;
- 4.9.4. Date, time and type of corrective actions taken pursuant to Condition 4.5.2;
- 4.9.5. Field, observation and data reduction records for any EPA Reference Method 9 determination conducted on the source of visible or fugitive emissions pursuant to Conditions 4.6 through 4.8.

[40 CFR § 71.6(a)(3)(i)(B)]

- 4.10. Any 6-minute average opacity determined to be in excess of 20% is a deviation and subject to the provisions of Conditions 3.47 and 3.48. [40 CFR § 71.6(a)(3)(i)(B)]

Monitoring for PSD Modifications to the Facility

- 4.11. Where there is a reasonable possibility (as defined in 40 CFR § 52.21(r)(6)(vi)) that a project (other than projects at a source with a plantwide applicability limitation) that is not a part of a major modification may result in a significant emissions increase of any regulated NSR pollutant and the permittee elects to use the method specified in 40 CFR § 52.21(b)(41)(ii)(a) through (c) for calculating projected actual emissions, the permittee shall perform the following:

- 4.11.1. Before beginning actual construction of the project, document and maintain a record of the following information.

4.11.1.1 A description of the project.

4.11.1.2 Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project.

4.11.1.3 A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under 40 CFR § 52.21(b)(41)(ii)(c) and an explanation for why such amount was excluded, and any netting calculations, if applicable.

- 4.11.2. Monitor the emission of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in Condition 4.11.1.2; and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five years following resumption of regular operations after the change, or for a period of ten years following resumption of regular operations after the

change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.

[40 CFR § 52.21(r)(6)]

Reporting for PSD Modifications to the Facility

4.12. If monitoring and recordkeeping is required in Condition 4.11.2, the permittee shall report to the EPA when the annual emissions, in tons per year, from the project identified in Condition 4.11.1.1 exceed the baseline actual emissions as documented and maintained pursuant to Condition 4.11.1.3 by a significant amount (as defined in 40 CFR § 52.21(b)(23)) for that regulated NSR pollutant, and when such emissions differ from the preconstruction projection as documented and maintained pursuant to Condition 4.11.1.3. Such report shall be submitted to the EPA within 60 days after the end of such year. The report shall contain the following.

4.12.1. The name, address and telephone number of the major stationary source.

4.12.2. The annual emissions as calculated pursuant to Condition 4.11.2.

4.12.3. Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

[40 CFR § 52.21(r)(6)]

NSPS Work Practice Requirements (for Boilers #1-4)

4.13. NSPS Good Air Pollution Control Practices. At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the EPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR § 60.11(d)]

4.14. NSPS Credible Evidence. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in Part 60, nothing in Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [40 CFR § 60.11(g)]

4.15. NSPS Circumvention. The permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable NSPS standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR § 60.12]

NSPS Recordkeeping Requirements (for Boilers #1-4)

4.16. NSPS Records of Startup, Shutdown and Malfunction. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility. [40 CFR § 60.7(b)]

4.17. NSPS Records Maintenance. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by the applicable NSPS recorded in a permanent form

suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records. [40 CFR § 60.7(f)]

NSPS Reporting Requirements (for Boilers #1-4)

- 4.18. NSPS Notification and Reporting Time Periods. For the purposes of the applicable NSPS, time periods specified in days shall be measured in calendar days, even if the word “calendar” is absent, unless otherwise specified in an applicable requirement. [40 CFR § 60.19(a)]
- 4.19. NSPS Notification and Reporting Postmarks. For the purposes of the applicable NSPS, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the permittee shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable. [40 CFR § 60.19(b)]
- 4.20. NSPS Notification of Modifications to the Facility. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which an NSPS applies, unless that change is specifically exempted under an applicable NSPS or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice. [40 CFR § 60.7(a)(4)]

NESHAP Work Practice Requirements

- 4.21. NESHAP Circumvention. The permittee shall not build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant NESHAP standard. Such concealment includes, but is not limited to, the use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere and the use of gaseous diluents to achieve compliance with a relevant standard for visible emissions. [40 CFR § 63.4(b)]

NESHAP Recordkeeping Requirements

- 4.22. NESHAP Malfunctions. The permittee shall maintain relevant records for the boilers of the occurrence and duration of each malfunction of operation (i.e., process equipment). [40 CFR § 63.10(b)(2)(ii)]
- 4.23. NESHAP Records. The permittee shall maintain files of all information (including all reports and notifications) required a NESHAP Standard recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche. [40 CFR § 63.10(b)(1)]

- 4.24. NESHAP Records. The permittee shall maintain relevant records for such source of all documentation supporting initial notifications and notifications of compliance status under §63.9 (see Condition 4.25). [40 CFR § 63.10(b)(2)(xiv)]

NESHAP Notification and Reporting Requirements

- 4.25. Notification of Compliance Status. The permittee shall submit a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied, before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in Subpart DDDDD. Notifications may be combined as long as the due date requirement for each notification is met. The notification shall include: [40 CFR 63.9(h)(2)(i) and (ii) and 63.9(h)(3)]
- 4.25.1. The methods that were used to determine compliance; [40 CFR § 63.9(h)(2)(i)(A)]
 - 4.25.2. The results of any methods that were conducted; [40 CFR § 63.9(h)(2)(i)(B)]
 - 4.25.3. The methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements; and [40 CFR § 63.9(h)(2)(i)(C)]
 - 4.25.4. A statement by the permittee as to whether the source has complied with the relevant requirements. [40 CFR § 63.9(h)(2)(i)(G)]
- 4.26. NESHAP Change in Information Already Provided. Any change in the information already provided under a NESHAP standard shall be provided to the Administrator in writing within 15 calendar days after the change. [40 CFR § 63.9(j)]

5. Unit-Specific Requirements – Boilers #1-4

Boilers #1-4 Emission Limits and Work Practice Requirements

- 5.1. The permittee is prohibited from combusting any fuel other than propane in the boilers. [Section 304(f)(4) of the Federal Clean Air Act and 40 CFR § 71.6(b)]
- 5.2. FARR SO₂ Emission Limit. Sulfur dioxide emissions from each boiler stack shall not exceed an average of 500 parts per million by volume, on a dry basis and corrected to seven percent oxygen, during any three-hour period.
- 5.2.1. Compliance with the SO₂ limit is determined using EPA Reference Methods 6, 6A, 6B, and 6C as specified in the applicability section of each method (see 40 CFR Part 60, appendix A) or, alternatively, a continuous emission monitoring system (CEMS) that complies with Performance Specification 2 found in Appendix B of 40 CFR Part 60. [40 CFR §§ 49.129(d)(1) and (e)]
- 5.3. FARR PM Emission Limit. Particulate matter emissions from each boiler stack shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot), corrected to seven percent oxygen, during any three-hour period.
- 5.3.1. Compliance with the PM limit is determined using EPA Reference Method 5 (see 40 CFR Part 60, Appendix A). [40 CFR §§ 49.125(d)(1) and (e)]
- 5.4. NESHAP Subpart DDDDD Tune-ups. The permittee shall conduct tune-ups of each boiler annually. [40 CFR §§ 63.7510(e) and 7500(a)(1)]

5.4.1. The initial tune-up shall be conducted no later than January 31, 2016. Subsequent tune-ups shall be conducted annually. Each annual tune-up shall be no more than 13 months after the previous tune-up.

[40 CFR §§ 63.7495(b), 63.7500(a)(1), 63.7510(e), 63.7515(d), and Item 3 in Table 3 to Subpart DDDDD]

5.4.2. For each boiler that has not operated between January 31, 2013, and January 31, 2016, the initial tune-up shall be conducted no later than 30 days after the re-start of that boiler. For each boiler that is not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, and for each boiler not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

[40 CFR §§ 63.7510(j), 63.7515(g) and 63.7540(a)(13)]

5.4.3. Tune-ups shall be conducted as follows:

5.4.3.1 As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

5.4.3.2 Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

5.4.3.3 Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);

5.4.3.4 Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications; and

5.4.3.5 Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

[40 CFR §§ 63.7540(a)(10)(i) to (v)]

5.5. NESHAP Subpart DDDDD Energy Assessment. The permittee shall have a one-time energy assessment of each boiler performed by a qualified energy assessor no later than January 31, 2016.

[40 CFR §§ 63.7495(b) and 63.7510(e)]

5.5.1. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in 5.5.1.1 to 5.5.1.8, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items 5.5.1.1 to 5.5.1.5 appropriate for the on-site technical hours listed in Condition 5.5.2:

- 5.5.1.1 A visual inspection of the boiler or process heater system.
- 5.5.1.2 An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
- 5.5.1.3 An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.
- 5.5.1.4 A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
- 5.5.1.5 A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified.
- 5.5.1.6 A list of cost-effective energy conservation measures that are within the facility's control.
- 5.5.1.7 A list of the energy savings potential of the energy conservation measures identified.
- 5.5.1.8 A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

[40 CFR § 63.7500(a)(1) and Item 4 in Table 3 to Subpart DDDDD]

5.5.2. The energy assessment will be 8 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. Each boiler system(s) and any on-site energy use system(s) accounting for at least 50 percent of the affected boiler(s) energy (e.g., steam, hot water, process heat, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing an 8-hour on-site energy assessment. [40 CFR § 63.7575]

5.5.3. For each boiler that has not operated between January 31, 2013, and January 31, 2016, the one-time energy assessment shall be conducted no later than 30 days after the re-start of that boiler.

[40 CFR § 63.7510(j)]

5.6. NESHAP Subpart DDDDD Good Air Pollution Control Practices. At all times, the permittee shall operate and maintain the boilers, including associated air pollution control equipment and 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 that 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 § 63.7500(a)(3)]

Boilers #1-4 Monitoring and Recordkeeping Requirements

5.7. NSPS Subpart Dc Recordkeeping Requirements. Except as provided in Condition 5.7.1 and 5.7.2, the permittee shall record and maintain records of the amount of each fuel combusted during each operating day. [40 CFR § 60.48c(g)(1)]

5.7.1. As an alternative, the permittee may elect to record and maintain records of the amount of each fuel combusted during each calendar month. [40 CFR § 60.48c(g)(2)]

- 5.7.2. As an alternative, the permittee may elect to record and maintain records of the total amount of each fuel delivered to that property during each calendar month.
[40 CFR § 60.48c(g)(3)]
- 5.7.3. All records required under 40 CFR § 60.48c shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.
[40 CFR § 60.48c(i)]
- 5.8. NESHAP Subpart DDDDD Records. The permittee shall keep and maintain records as follows:
- 5.8.1. A copy of each notification and report submitted to comply with NESHAP Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted according to the requirements in 40 CFR § 63.10(b)(2)(xiv) (see Condition 4.24). [40 CFR § 63.7555(a)(1)]
- 5.8.2. Records of the calendar date, time, occurrence and duration of each startup and shutdown. [40 CFR § 63.7555(i)]
- 5.8.3. Records of the type(s) and amount(s) of fuels used during each startup and shutdown. [40 CFR § 63.7555(j)]
- 5.8.4. On-site and submitted, if requested by the Administrator, an annual report containing the following:
- 5.8.4.1 The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler; and
- 5.8.4.2 A description of any corrective actions taken as a part of the tune-up.
[40 CFR § 63.7540(a)(10)(vi)]
- 5.8.5. Each record must be in a form suitable and readily available for expeditious review. Each record shall be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Each record shall be kept on site, or they shall be accessible from onsite (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. You can keep the records off site for the remaining 3 years.
[40 CFR §§ 63.7560(a) to (c)]

Boilers #1-4 Notification and Reporting Requirements

- 5.9. NESHAP Subpart DDDDD Notification of Compliance Status. The permittee shall submit all of the notifications in 40 CFR §§ 63.9(b) through (h) (see Condition 4.25) by the dates specified.
[40 CFR §§ 63.7495(d) and 63.7545(a)]
- 5.9.1. The notification shall include a description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit and a description of the fuel(s) burned. [40 CFR § 63.7545(e)(1)]
- 5.9.2. In addition to the information required in § 63.9(h)(2) (see Condition 4.25), the notification shall include the following certification(s) of compliance, as applicable, and be signed by a responsible official:
- 5.9.2.1 “This facility complies with the required initial tune-up according to the procedures in §§ 63.7540(a)(10)(i) through (vi) (see Condition 5.4).”

5.9.2.2 “This facility has had an energy assessment performed according to § 63.7530(e) (see Condition 5.5).”

[40 CFR §§ 63.7530(d) and (e) and 63.7545(e)(8)]

5.10. NESHAP Subpart DDDDD Annual Compliance Reports. The permittee shall submit annual compliance reports. [40 CFR § 63.7550(a)]

5.10.1. The first compliance report shall cover the period beginning on January 31, 2016, and ending on January 31, 2017, and be postmarked and submitted no later than January 31, 2017. [40 CFR §§ 63.7550(b)(1) and (2)]

5.10.2. Each subsequent compliance report shall cover the annual reporting period from January 1 to December 31, and be postmarked or submitted no later than January 31. [40 CFR §§ 63.7550(b)(3) and (4)]

5.10.3. The compliance report shall include the following information: [40 CFR § 63.7550(c)(1)]

5.10.3.1 Company and Facility name and address. [40 CFR § 63.7550(c)(5)(i)]

5.10.3.2 Process unit information. [40 CFR § 63.7550(c)(5)(ii)]

5.10.3.3 Date of report and beginning and ending dates of the reporting period. [40 CFR § 63.7550(c)(5)(iii)]

5.10.3.4 The total operating time during the reporting period. [40 CFR § 63.7550(c)(5)(iv)]

5.10.3.5 The date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to §63.7540(a)(10) (see Conditions 5.4.3 and 5.8.4), and the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown. [40 CFR § 63.7550(c)(5)(xiv)]

5.10.3.6 If there are no deviations from the requirements for work practice standards in Table 3 to Subpart DDDDD that apply to you, a statement that there were no deviations from the work practice standards during the reporting period. [Item 1.b in Table 9 to Subpart DDDDD]

5.10.3.7 If you have a deviation from a work practice standard during the reporting period, the report must contain a description of the deviation and information on the duration and cause of the deviation and corrective action taken. [Item 1.c in Table 9 to Subpart DDDDD and 40 CFR §§ 63.7550(d)(1) and (2)]

5.10.3.8 A statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. [40 CFR § 63.7550(c)(5)(xvii)]

5.10.4. All reports shall be submitted electronically using the Compliance and Emissions Data Reporting Interface that is accessed through the EPA’s Central Data Exchange (www.epa.gov/cdx). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the report shall be submitted to the address listed in Condition 3.40. [40 CFR § 63.7550(h)]

5.11. NESHAP Subpart DDDDD Notification of Fuel Switch or Physical Change. The permittee shall provide notice to the EPA within 30 days of the switch/change if the permittee has switched fuels or made a physical change to a boiler and the fuel switch or physical change resulted in the applicability of a different subcategory of NESHAP Subpart DDDDD. The notice shall identify:

- 5.11.1. The name of the owner or operator of the boiler, the location of the boiler, identification of the boiler that has switched fuels or was physically changed, and the date of the notice.
- 5.11.2. The currently applicable subcategory under NESHAP Subpart DDDDD.
- 5.11.3. The date upon which the fuel switch or physical change occurred.

[40 CFR § 63.7545(h)]

6. Unit-Specific Requirements – Lumber Kilns #1-11

Lumber Kilns #1-11 Emission Limits and Work Practice Requirements

- 6.1. Particulate matter emissions from the stack(s) of these emission units shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.
 - 6.1.1. Compliance with the particulate matter limit is determined using EPA Reference Method 5 (see 40 CFR Part 60, appendix A).
- 6.2. Maximum dry bulb temperature (°F) of heated air entering the lumber stack for each kiln load shall not exceed 200 °F when drying pine lumber. [section 304(f)(4) of the CAA and 40 CFR § 71.6(b)]

[40 CFR §§ 49.125(d)(3) and (e)]

Lumber Kilns #1-11 Monitoring and Recordkeeping Requirements

- 6.3. Process Monitoring and Recordkeeping Requirements. The permittee shall conduct monitoring as follows:
 - 6.3.1. Install, calibrate, operate and maintain, in accordance with manufacturer specifications, equipment necessary to measure and record the species and volume of lumber dried and the maximum dry bulb temperature (°F) of heated air entering the lumber stack for each kiln load. As an alternative to installing and operating equipment to measure and record temperature, the permittee is allowed to assume the maximum dry bulb temperature is above 200 °F for the purpose of calculating emissions.

[40 CFR §§ 71.6(a)(3)(i)(B) and 71.6(c)(1)]

7. Unit-Specific Requirements – Cyclones

Cyclones Emission Limits and Work Practice Requirements

- 7.1. Particulate matter emissions from the stack(s) of these emission units shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.
 - 7.1.1. Compliance with the particulate matter limit is determined using EPA Reference Method 5 (see 40 CFR Part 60, appendix A).

[40 CFR §§ 49.125(d)(3) and (e)]

8. Unit-Specific Requirements – Bins

Bins Emission Limits and Work Practice Requirements

- 8.1. Particulate matter emissions from the stack(s) of these emission units shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.

- 8.1.1. Compliance with the particulate matter limit is determined using EPA Reference Method 5 (see 40 CFR Part 60, appendix A).

[40 CFR §§ 49.125(d)(3) and (e)]

9. Unit-Specific Requirements – MNFA (Miscellaneous Non-Fugitive Activities)

MNFA Emission Limits and Work Practice Requirements

- 9.1. Particulate matter emissions from the stack(s) of these emission units shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.

- 9.1.1. Compliance with the particulate matter limit is determined using EPA Reference Method 5 (see 40 CFR Part 60, appendix A).

[40 CFR §§ 49.125(d)(3) and (e)]

10. Abbreviations and Acronyms

Also see 40 CFR §§ 60.2, 60.41c, 63.2, 63.2292, 63.7575 and 71.2.

§	Section
Btu	British thermal units
CAA	Clean Air Act [42 U.S.C. section 7401 et seq.]
CAM	Compliance assurance monitoring
CFR	Code of Federal Regulations
CO	Carbon monoxide
COMS	Continuous opacity monitoring system
DC	Dry chips
dscf	Dry standard cubic feet
EPA	United States Environmental Protection Agency (also U.S. EPA)
EU	Emission Unit
FARR	Federal Air Rules for Reservations
FR	Federal Register
gal	gallon(s)
GC	Green chips
gr	grains (7,000 grains = 1 pound)
HAP	Hazardous air pollutant
HF	Hog fuel (aka hogged fuel or wood waste)
hr	Hour
lb	Pound (lbs = pounds)
lbm	Pound-mole
LLM	Large log mill
MACT	Maximum Achievable Control Technology
m	thousand
mm	million
bf	board feet
NESHAP	National Emission Standards for Hazardous Air Pollutants (40 CFR Parts 61 and 63)
NO _x	Nitrogen oxides
NSPS	New Source Performance Standards (40 CFR Part 60)
PM	Particulate matter

PM ₁₀	Particulate matter less than or equal to 10 microns in aerodynamic diameter
PM _{2.5}	Particulate matter less than or equal to 2.5 microns in aerodynamic diameter
ppmdv	Parts per million on a dry, volume basis
PSD	Prevention of significant deterioration
PTE	Potential to emit
S	Sulfur
SD	Sander dust
SH	Shavings
SLM	Small log mill
SO ₂	Sulfur dioxide
tpy	Tons per year
VOC	Volatile organic compound

United States Environmental Protection Agency
Region 10, Office of Air, Waste and Toxics
AWT-150
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Seattle, Washington 98101-3140

Permit Number: R10T5120000
Issued: September 29, 2015
Effective: September 29, 2015
Expiration: September 29, 2015
AFS Plant I.D. Number: 53-077-00072

Statement of Basis

Title V Air Quality Operating Permit Initial Permit

Permit Writer: Doug Hardesty

Yakama Forest Products

Yakama Reservation
White Swan, Washington

Purpose of Permit and Statement of Basis

Title 40 Code of Federal Regulations Part 71 establishes a comprehensive air quality operating permit program under the authority of Title V of the 1990 amendments to the federal Clean Air Act. The air quality operating permit is an enforceable compilation of all of the applicable air pollution requirements that apply to an existing affected air emissions source. The permit is developed via a public process, may contain additional new requirements to improve monitoring of existing requirements, and contains procedural and prohibitory requirements related to the permit program itself. The permit is valid for five years and may be renewed.

This document, the statement of basis, summarizes the legal and factual basis for the permit conditions in the air quality operating permit to be issued to Yakama Forest Products (referred to herein as YFP facility, source, or permittee). Unlike the air quality operating permit, this document is not legally enforceable. This statement of basis summarizes the emitting processes at the facility, air emissions, permitting and compliance history, the statutory or regulatory provisions that relate to the subject facility, and the steps taken to provide opportunities for public review of the permit. The permittee is obligated to follow the terms of the permit. Any errors or omissions in the summaries provided here do not excuse the permittee from the requirements of the permit.

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Appendix A – PTE Emissions Inventory	

1. EPA Authority to Issue Title V Permits

On July 1, 1996, the EPA adopted regulations (see 61 Federal Register 34202) codified at 40 Code of Federal Regulations Part 71 setting forth the procedures and terms under which the Agency would administer a federal operating permit program. These regulations were updated on February 19, 1999 (64 FR 8247) to incorporate the EPA's approach for issuing federal operating permits to affected stationary sources in Indian Country.

As described in 40 CFR 71.4(a), the EPA will implement a Part 71 program in areas where a state, local, or Tribal agency has not developed an approved Part 70 program. Unlike states, Indian Tribes are not required to develop operating permit programs, though the EPA encourages Tribes to do so. See, for example, Indian Tribes: Air Quality Planning and Management (63 FR 7253, February 12, 1998) (also known as the "Tribal Authority Rule"). Therefore, within Indian Country, the EPA will administer and enforce a Part 71 federal operating permit program for stationary sources until the governing Indian Tribe receives the EPA's approval to administer its own operating permit program.

2. Facility Information

2.1 Location

The YFP facility is located in White Swan, Washington, within the exterior boundaries of the 1855 Yakama Reservation and is in Indian Country as defined in 40 CFR Part 71.

2.2 Yakama Reservation

The YFP facility is located on the Yakama Reservation in south central Washington. The reservation was established by the Treaty of June 9, 1855 (12 Stat. 951), by which The Confederated Tribes and Bands of the Yakama Nation ceded to the United States their aboriginal title to approximately 10 million acres in central Washington and reserved for their own use forever the Yakama Reservation. The Yakama Nation is composed of 14 Tribes and Bands: Kah-milt-pah, Klickitat, Klinquit, Kow-was-say-ee, Li-ay-was, Oche-chotes, Palouse, Piquose, Se-ap-cat, Shyiks, Skinpa, Wenatshapam, Wishram and Yakama. The 1.4 million acre reservation is primarily in Yakima County with some land in Klickitat and Lewis Counties. The reservation is considered to be Indian Country, as defined in 40 CFR Part 71.

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2.3 Facility Description

Yakama Forest Products is a tribal enterprise wholly owned by the Confederated Tribes and Bands of the Yakama Nation. It operates two sawmills in White Swan, Washington where it produces common boards, industrial shop lumber, and dimensional lumber from timber harvested from tribal lands. The two mills are separated by a public road. The small log mill is located on the east side of the road and the large log mill is located on the west side of the road. The EPA has determined that YFP must treat the two mills as a single source for regulatory applicability purposes. The Title V permit is being issued to YFP; a wholly owned business enterprise of the Yakama Nation. YFP is the operator of the facility.

The primary air emission activities at the facility include fuel burning, lumber drying, lumber production and material handling. Each mill has two boilers that produce steam for lumber drying. The large log mill boilers are currently fired on propane. The small log mill boilers, currently not operating, will be converted to propane firing before being restarted. All of the boilers previously fired used oil or fuel oil. Oil storage tanks still exist on site but are not in service. YFP plans to sell and remove the tanks from the facility. The byproducts of lumber manufacturing are sawdust, green and dry wood chips, planer shavings and hog fuel. These byproducts are stored in bins until the material is sold and transferred off-site.

The air pollution emission units and control devices that exist at YFP are listed in Table 2-1 below by emission unit identification. None of the emission units vent through a stack shared with another emission unit. Installation dates and capacities are listed for several emission units based on the best information available from the applicant.

Table 2-1 – Emission Units & Control Devices

EU ID	Emission Unit Description	Control Device
SLM Boilers	In the small log mill, two propane fired boilers supply steam to the small log mill kilns: Superior Model No. 6-5-3000, Serial No. 13796; Superior Model No. 7-4-2500, Serial No. 14159. Boiler 1 was installed in August 1998; boiler 2 was installed in 2001. Heat input capacity is 24.92 million Btu/hr each and maximum steam production is 20,700 and 21,562 lb/hr, respectively. Both will be converted from oil-firing to propane-firing prior to restarting.	None
LLM Boilers	In the large log mill, two propane fired boilers supply steam to the large log mill kilns: Superior Model No. 6-5-5000 and Serial Nos. 14921 and 14922. Both were installed in 2002. Heat input capacity is 29.1 million Btu/hr each (after de-rating in February 2009) and maximum steam production is approximately 23,252 lb/hr each. Both were converted from oil to propane firing in 2014.	None
SLM Kilns	In the small log mill, four indirectly heated Coe brand kilns dry lumber. Kilns #1-3 are 65-foot long single track kilns installed in 1997; kiln #4 is 100-foot long double track kiln installed in 2001. Approximate total annual capacity per wood species for all small log mill kilns is 88.8 mmbf (Grand Fir), 80.6 mmbf (Douglas Fir) and 61.9 mmbf (pine).	None
LLM Kilns	In the large log mill, seven indirectly heated Coe brand kilns dry lumber. Kilns #5-9 are 100-foot long single track kilns installed in 2002; kilns #10-11 are 100-foot long double track kilns installed in 2005. Approximate total annual capacity per wood species for all large log mill kilns is 116.5 mmbf (Grand Fir), 116.4 mmbf (Douglas Fir) and 77.2 mmbf (pine).	None
SLM Cyclone	In the small log mill, Cyclone C-1 separates shavings from a pneumatic handling system into Bin SH-1.	None
LLM Cyclones	In the large log mill, Cyclones C-2, C-3 and C-4 separate sawdust, green chips and shavings, respectively, from pneumatic handling systems onto the hogged fuel conveyor, into Bin GC-2 and into Bin SH-2, respectively. Approximately 2% of the sawdust produced in the large log mill is moved pneumatically.	None

SLM Bins	In the small log mill, Bins HF-1, SD-1, GC-1, DC-1 store hog fuel, sawdust, green chips and dry chips, respectively, received from conveyor belts; Bin SH-1 stores shavings received from Cyclone C-1. All five bins unload to trucks.	None
LLM Bins	In the large log mill, Bins HF-2, SD-2 and DC-2 store hog fuel and sawdust, only sawdust, and dry chips, respectively, received from conveyors belts; Bins GC-2 and SH-2 store green chips and shavings, respectively, received from Cyclones C-3 and C-4. Bin HF-2 receives approximately 2% of the sawdust produced in the large log mill while Bin SD-2 receives approximately 98%. All five bins unload to trucks.	None
LLM Tanks	In the large log mill, two storage tanks store propane fuel. Capacity is 30,000 gallon each. Both were installed in 2014.	None
MNFA	In both mills, miscellaneous non-fugitive activities generate emission inside buildings and are not described in other emission units.	Generated inside buildings
MFA	In both mills, miscellaneous fugitive activities generate emissions outside buildings and are not described in other emission units.	None
PT	In both mills, plant traffic by vehicles on paved and unpaved roads generate fugitive dust emissions.	Watering

2.4 Local Air Quality and Attainment Status

South central Washington, including the Yakama Reservation, either attains the national ambient air quality standard for all criteria pollutants or is unclassified. An area is unclassifiable when there is insufficient monitoring data. Ambient PM₁₀ and PM_{2.5} data are currently being collected at a monitoring location in the city of Yakima. Ambient PM_{2.5} data are also being collected at monitoring locations in White Swan, Toppenish and Sunnyside, but these data are non-regulatory. Until about 2005, ambient CO data were collected at a monitoring site in Yakima. The data collected at these monitoring sites has indicated PM_{2.5} concentrations that sometimes exceed the national ambient air quality standards especially during winter-time periods of air stagnation. The area is currently considered to be in attainment for PM₁₀, PM_{2.5} and CO. The area is unclassified for all other pollutants.

2.5 Permitting, Construction and Compliance History

The small log mill began operation in 1998 with one boiler and three single-track lumber drying kilns. A second boiler and fourth (double-track) lumber drying kiln were added to the small log mill in 2001. The large log mill began operating in 2002 with two boilers and five, single-track lumber drying kilns. Two double-track lumber drying kilns were added to the large log mill in circa 2005/2006.

All four of the boilers were originally designed to burn oil. YFP de-rated the large log mill boilers from 41.3 mmBtu/hr to their current capacities of about 29.1 mmBtu/hr in late 2008 to avoid more stringent NSPS requirements. The boilers were tested in February 2009 to confirm the boilers were de-rated. The large log mill boilers were converted to burn propane in 2014. The small log mill boilers have not been operated since 2011. YFP has indicated, and this permit requires, that the small log mill boilers will be converted to burn propane before restarting operation. YFP has also requested that this permit limit the temperature that pine can be dried at to 200°F.

In January and July 2003, YFP submitted to EPA Title V permit applications for the small log mill and large log mill, respectively. On September 18, 2003 the agency determined that the application was

incomplete. On October 6, 2003, and June 16, 2006, EPA issued notices of noncompliance to YFP, listing violations of Title V Part 71 requirements and provisions in NSPS Subpart Dc and Subpart A. As a result of many years of ongoing negotiations, YFP decided to de-rate the large log boilers and convert from oil burning to propane burning.

YFP submitted a new Title V permit application in December 2009, Region 10 determined that application to be incomplete. YFP resubmitted the application in November 2010. EPA deemed the application complete on January 27, 2011. The facility is currently considered in compliance.

3. Emission Inventory

3.1 Emission Inventory Basics

An emission inventory generally reflects either the “actual” or “potential” emissions from a source. Actual emissions generally represent a specific period of time and are based on actual operation and controls. Potential emissions, referred to as potential to emit, generally represent the maximum capacity of a source to emit a pollutant under its physical and operational design, taking into consideration regulatory restrictions, but only required control devices. PTE is often used to determine applicability to several EPA programs, including Title V, PSD and Section 112 (MACT).

Emissions can be broken into two categories: point and fugitive. Fugitive emissions are those which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Examples of fugitive emissions are roads, piles that are not normally enclosed, wind-blown dust from open areas, and those activities that are normally performed outside buildings. Point sources of emissions include any emissions that are not fugitive.

The equation below represents the general technique for estimating emissions (in tons per year) from each emission unit at the facility. Emissions are calculated by multiplying an emission factor by an operational parameter. To estimate actual emission, the permittee will need to track the actual operational rates. Note that emission factors may be improved over time. For those estimation techniques that require substantial site-specific parameter tracking, such as piles and roads, emissions associated with a defined operational rate can be estimated to establish a set ratio that can be used to multiply by the actual operational rate in future years, significantly simplifying the annual inventory effort. All of the techniques and site-specific parameters and assumptions should be reviewed each year before estimating emissions to be sure they remain appropriate.

$$E = EF \times OP \times K$$

Where:

E = pollutant emissions in tons/year

EF = emission factor (see Appendix A to this Statement of Basis)

OP = operational rate (or capacity for PTE)

K = 1 ton/2000 lbs for conversion from pounds per year to tons per year

3.2 Potential to Emit

YFP completed and submitted EPA Part 71 Operating Permit Form EMISS for all emission units as part of its Title V permit application; however, YFP asked Region 10 to use the emission inventory in the 2010 Non-Title V permit application because it was more current, but provided new production capacities on July 23, 2015. Region 10 reviewed YFP’s inventories and has documented the facility PTE in Appendix A to this Statement of Basis. In some instances, Region 10 revised the emission estimates provided by YFP to more accurately reflect potential emissions from the facility. A summary of YFP’s

non-fugitive PTE (except for HAPs) is presented in Table 3-1 below. Note that fugitive emissions are not included for non-HAP emissions, because for sawmills fugitive emissions are not used to determine program applicability as explained in more detail in Section 4.1 of this Statement of Basis. HAPs are used to determine applicability for MACT purposes.

Table 3-1 – YFP Potential to Emit (tpy)¹

Pollutant ²	Emission Units							Total
	Boilers	Kilns	Cyclones	Bins	MNFA	MFA	PT	
CO	38.8							39
Pb	0.00							0
NO _x	67.2							67
PM	1.0	5.1	16.3	0.09	26.1			49
PM ₁₀	3.6	5.1	13.9	0.04	13.1			36
PM _{2.5}	3.6	5.1	8.2	0.01	6.5			23
SO ₂	7.8							8
VOC	5.2	198.2	17.6					217
GHG (CO _{2e})	64,653							64,653
Facility-wide Single HAP								43.2
Facility-wide Total HAP								51.8

¹ Fugitive emissions are not included in this table (except for HAPs) because fugitives are not used in applicability determinations for this source type (see Section 4.1). For fugitive emission estimates, see Appendix A.

² CO = carbon monoxide; Pb = lead; NO_x = oxides of nitrogen; PM = particulate matter; PM₁₀ = inhalable coarse particulate or particulate matter with diameter 10 microns or less; PM_{2.5} = fine particulate or particulate matter with diameter 2.5 microns or less; SO₂ = sulfur dioxide; VOC = volatile organic compounds; GHG = greenhouse gases; CO_{2e} = carbon dioxide equivalent; HAP = hazardous air pollutants [see CAA, Section 112(b)]; facility-wide total HAP = all HAPs totaled; facility-wide single HAP = highest individual HAP.

The emission estimates found in Appendix A include various adjustments to reflect a conservative potential to emit. YFP’s application listed the maximum boiler steam production rate to be 33,000 pounds per hour in the large log mill, which was the maximum steam production rate of the boilers before being derated. The maximum steam production rate in Appendix A has been reduced by the same ratio of boiler de-rating that took place (from 41.3 mmBtu/hr to 29.1 mmBtu/hr). In Appendix A, the maximum sulfur content of propane is assumed to be 15 grains per 100 cubic feet of gas, based on the Gas Processors Association standard of 185 ppmw. This is assumed to be very conservative, because actual sulfur content is normally much lower due to corrosion prevention specifications.

YFP’s application assumed 7,980 hours per year for kiln, cyclone and bin operations. On July 23, 2015, YFP provided new production capacities based upon production modeling. Using YFP’s estimate that it takes 3.5 pounds of steam to dry one board-foot of lumber, the large log mill boilers cannot supply enough steam to meet the maximum demand of the large log mill kilns causing a production “bottleneck.” The large log mill kiln capacities have been reduced to the equivalent maximum amount of steam that can be produced. For kiln estimates, the pine lumber is assumed to be Western White Pine and the Grand Fir is assumed to be White Fir. Also for kiln estimates, the maximum drying temperature for Grand Fir and Douglas Fir is assumed to be greater than 200°F. Because this permit limits the temperature when drying pine lumber to 200°F, the PTE uses a low temperature emission factor for pine lumber.

For miscellaneous emission generating activities that occur inside buildings, emissions have been reduced by 80% due to being inside a building. While Region 10 does not have documentation to support this reduction, it seems logical that the reduction is substantial and should be included in some manner. Note that the propane storage tanks are designed to operate under pressure without leaking. While some leakage is likely, the emissions are expected to be very small and have not been estimated.

Additional sources of VOC and HAP, both fugitive and non-fugitive, likely exist, but emission factors for those sources are not available. For instance, it is known that logs, lumber and byproducts lose turpentine over time, and turpentine content relates to VOC emissions. Also, some portion of the VOC emissions tend to be HAPs. Methanol is known to be emitted from cyclones handling hardwood chips (AP-42, Table 10.6.4-9, 9/2002), and softwood is known to emit more VOC and HAPs than hardwood and shavings and sawdust handling generally emits more VOC and HAPs than chip handling. The permittee should use emission factors for sources not yet included when they become available.

YFP is expected to use the emission factors and calculation methods presented in Appendix A unless YFP demonstrates that a more appropriate emission factor or calculation method should be used (e.g., results of more recent source testing or sampling, revised emission factors published in AP-42, etc.). It is important to emphasize that to the extent YFP relies on any type of emission control technique to estimate emissions used to determine annual fees, or the applicability of a regulatory program, use of the technique must be fully documented and verifiable.

4. Regulatory Analysis and Permit Content

The EPA is required by 40 CFR Part 71 to include in this Title V permit all emission limitations and standards that apply to the facility, including operational, monitoring, testing, recordkeeping and reporting requirements necessary to assure compliance. This section explains which air quality regulations apply to this facility and how those requirements are addressed in the permit.

The YFP facility is made up of two sawmills located across the road from each other but considered one source for Title V purposes: the large log mill and the small log mill. Located within Indian Country, the YFP facility is subject to federal air quality regulations, but not subject to state air quality regulations. The EPA does not consider any permits issued by Washington Department of Ecology or the Yakima Regional Clean Air Agency to the YFP facility to be applicable requirements. The facility could be subject to tribal air quality regulations; however, the Yakama Nation has not gone through the process of obtaining authorization to be treated in the same manner as states under 40 CFR §§ 49.6 and 49.7 (Tribal Authority Rule) and obtaining approval of air quality regulations as a “Tribal Implementation Plan.” Therefore, Tribal air quality regulations, if any, are not federally enforceable and do not meet the definition of “applicable requirement” under 40 CFR Part 71. As such, there are no Tribal air quality regulations in the YFP Title V permit.

The EPA relied on information provided in YFP’s Title V permit application, YFP’s 2010 Non-Title V application and on supplementary information provided by YFP to determine the requirements that are applicable to the sawmills. Future modifications to the mill could result in additional requirements.

4.1 Federal Air Quality Requirements

Title V Operating Permit Program. Title V of the CAA and the implementing regulation found in 40 CFR part 71 require major sources (as well as a selection of non-major sources) of air pollution to obtain operating permits and form the legal bases for this permit. A source is major for Title V purposes if it has the potential to emit 100 tons per year or more of any air pollutant subject to regulation, 25 tons per year or more of hazardous air pollutants (totaled) or 10 tons per year or more of any single hazardous air pollutant (see 40 CFR 71.2). YFP’s facility is a major source subject to Title V because it has the potential to emit more than 100 tons per year of VOC not counting fugitive emissions, more than 10 tons per year of methanol, and more than 25 tons per year of total HAPs (see Table 1 and Appendix A).

The Title V operating permit serves as a comprehensive compilation of the air quality requirements that are applicable to a source. The permit also must assure compliance, so source-specific testing, monitoring, recordkeeping and reporting have been added where the EPA believes it is necessary, as explained in Section 4.3 (Permit Conditions) of this Statement of Basis below.

Prevention of Significant Deterioration. Under the PSD pre-construction permitting program found in Part C of the CAA and 40 CFR 52.21, no “major stationary source” or “major modification” to a major stationary source can begin actual construction without first obtaining a PSD permit. The PSD program has been changed over the years, but in general, a major stationary source for purposes of the PSD program is a source with a PTE of more than 250 tons per year of any PSD pollutant. Based upon our knowledge of the facility and understanding of its potential emissions and existing limitations, the facility will be considered a PSD minor source with the issuance of this permit. A modification to an existing minor source is subject to PSD only if the changes would constitute a major source by itself. Historical reviews of potential PSD projects are difficult due to the lack of specific details about the sources, their emissions and the various applicability requirements in previous PSD programs.

New Source Performance Standards. Four combustion-related NSPS may apply to the four boilers and three tank-related NSPS may apply to the propane fuel tanks at the YFP facility. Only two of the four boilers have been converted to being fueled with propane rather than oil. YFP has agreed to not start up the two un-converted boilers until they have been converted to propane fuel (and disconnected from the oil fuel supply system).

The boilers are not subject to 40 CFR Part 60, Subparts D, Da and Db because the boilers each have a heat input capacity less than 30 mmBtu/hr, well below the size cut off for each of those subparts. All four boilers are subject to Subpart Dc which applies to boilers built after 6/9/1989 that burn propane (propane meets the definition of natural gas in 60.41c) with a heat input capacity greater than 10 mmBtu/hr. NSPS Subpart Dc requirements that do not apply to the YFP facility are not included in the permit; requirements that apply but do not create specific requirements for YFP are also not included in the permit. Table 4-1 explains whether specific requirements of Subpart Dc apply to the boilers and where the requirements are located in the permit.

Table 4-1 – NSPS Subpart Dc Applicability, 40 CFR Part 60

Citation	Description	Applicability
60.40c – 60.41c	Applicability and definitions	Apply, but are not included in the permit.
60.42c – 60.47c	Fuel-specific SO ₂ and PM requirements	Do not apply because propane-fired boilers are not subject to SO ₂ or PM limits.
60.48c(a)	Initial notification	One-time past requirement.
60.48c(b-f)	Emission limit recordkeeping	Do not apply because propane-fired boilers are not subject to SO ₂ or PM limits.
60.48c(g)	Recordkeeping	Applies; see Permit Condition 5.7.
60.48c(h)	Annual capacity factors	Does not apply because YFP does not have an annual capacity factor limit.
60.48c(i)	Recordkeeping	Applies; see Permit Condition 5.7.3.
60.48c(j)	Reporting	Does not apply because propane-fired boilers are not subject to reporting for SO ₂ or PM limits.

The two propane fuel tanks are not subject to 40 CFR Part 60, Subparts K and Ka because each tank, installed in 2014, was constructed after 1984. The propane fuel tanks are not subject to Subpart Kb because the tank is a pressure vessel designed to operate in excess of 204.9 kPa with no emission to the atmosphere. The vapor pressure of propane is about 102 psi or 703 kPa. YFP has several old fuel oil storage tanks, ranging in size from 10,000 to 25,000 gallons, that stored fuel with a vapor pressure less than 15 kPa but are no longer in service. If still in service, the tanks would not be subject to NSPS due to

the combination of size and vapor pressure. YFP plans to sell the fuel oil storage tanks and remove them from the facility.

Because 40 CFR Part 60, Subpart Dc applies to the boilers, Subpart A of Part 60 also applies, as explained in §60.1(a). NSPS Subpart A requirements that do not apply to the YFP facility are not included in the permit; requirements that apply but do not create specific requirements for YFP are also not included in the permit. Table 4-2 explains whether specific requirements of Subpart A apply to the boilers and where the requirements are located in the permit.

Table 4-2 – NSPS Subpart A Applicability, 40 CFR Part 60

Citation	Description	Applicability
60.1 – 60.3	Applicability, definitions and units	Apply, but are not included in the permit.
60.4(a)	Reporting address	Applies; see Permit Condition 3.40 for the current address for reporting to Region 10, including NSPS submittals.
60.4(b)	Delegation	Applies, but are not included in the permit.
60.5 – 60.6	Construction and review of plans	Apply, but are not included in the permit.
60.7(a)(1, 3)	Initial notification	One-time past requirements.
60.7(a)(4)	Modification notification	Applies; see Permit Condition 4.19.
60.7(a)(5-7)	CMS and opacity notification	Do not apply because Subpart Dc does not contain CMS or opacity requirements.
60.7(b)	Startup, shutdown, malfunction records	Applies; see Permit Condition 4.16.
60.7(c-e)	CMS recordkeeping	Do not apply because Subpart Dc does not require CMS.
60.7(f)	Recordkeeping	Applies; see Permit Condition 3.35.
60.7(g)	Similar notification	Does not apply because no other states or Tribes require notification.
60.7(h)	Individual subpart clarification	Applies, but is not included in the permit.
60.8	Performance tests	Does not apply because Subpart Dc does not require testing.
60.9 – 60.10	Availability of information and state authority	Apply, but are not included in the permit.
60.11(a-c)	Compliance with standards including opacity	Do not apply because the standards in Subpart Dc do not apply.
60.11(d)	Good air pollution control practice	Applies; see Permit Condition 4.13.
60.11(e)	Opacity compliance	Do not apply because Subpart Dc does not limit opacity.
60.11(f)	Conflicting subpart provisions	Applies, but is not included in the permit.
60.11(g)	Credible evidence	Applies; see Permit Condition 4.14.
60.12	Circumvention	Applies; see Permit Condition 4.15.
60.13	Monitoring	Does not apply because Subpart Dc does not require monitoring.
60.14 – 60.17	Modification, reconstruction, priority list and incorporations by reference	Apply, but are not included in the permit.
60.18	Control devices	Does not apply because Subpart Dc does not refer to this.

Citation	Description	Applicability
60.19	General notification and reporting	Applies; see Permit Conditions 4.17 and 4.18.

National Emission Standards for Hazardous Air Pollutants. The YFP facility is considered a major source of HAPs because the facility has the potential to emit more than 25 tons per year of HAPs and more than 10 tons per year methanol. As a major source of HAPs, the facility is subject to two applicable NESHAP standards, also known as MACT standards: 40 CFR Part 63, Subparts DDDD (Plywood and Composite Wood Products) and DDDDD (Industrial, Commercial and Institutional Boilers and Process Heaters at Major Sources).

Subpart DDDD applies to any lumber kiln located at a major HAP facility according to 40 CFR §63.2231. According to §63.2252, because there are no compliance options or work practice requirements specified in §63.2240, lumber kilns are not required to comply with the compliance options, work practice requirements, performance testing, monitoring, SSM plans, and recordkeeping or reporting requirements of Subpart DDDD, or any other requirements in Subpart A of this part, except for the initial notification requirements in §63.9(b), which is a one-time requirement. YFP submitted their initial notification on December 10, 2009. No other requirements associated with Subpart DDDD will be in YFP's permit.

Subpart DDDDD applies to all four boilers because they burn propane, are bigger than 10mmBtu/hr heat input capacity, do not meet any of the exemptions in §63.7491 and are located at a major HAP source. Because the boilers were installed before June 4, 2010, they are considered existing, not new. The compliance date for the Subpart DDDDD is January 31, 2016. YFP submitted their initial notification for Subpart DDDDD on September 30, 2013.

NESHAP Subpart DDDDD requirements that do not apply to the YFP facility are not included in the permit; requirements that apply but do not create specific requirements for YFP are also not included in the permit. Table 4-3 explains whether specific requirements of Subpart A apply to the boilers and where the requirements are located in the permit.

Table 4-3 – NESHAP Subpart DDDDD Applicability, 40 CFR Part 63

Citation	Description	Applicability
63.7480 – 63.7491	Purpose, applicability and affected source	Apply, but are not included in the permit.
63.7495(a)	New source compliance deadline	Does not apply because the boilers are existing units, constructed before 6/4/2010.
63.7495(b)	Existing source compliance deadline	Applies; see Permit Conditions 5.4.1 and 5.5.
63.7495(c)	Area sources that become major	Applies, but is not included in the permit.
63.7495(d)	Notification	Applies; see Permit Condition 5.9.
63.7495(e-g)	Incinerators, EGUs and control devices	Does not apply because the boilers are not any of the units listed.
63.7499	Subcategories	Applies (Subcategory 1), but is not included in permit.
63.7500(a)(1)	Emission limits and work practice standards in Table 3, Items 3 and 4	Applies; see Permit Conditions 5.4.1 and 5.5.1.
63.7500(a)(2)	Operating limits	Does not apply because the boilers are not subject to operating limits.
63.7500(a)(3)	Good air pollution control practices	Applies; see Permit Condition 5.6.
63.7500(b)	Alternative work practice standards	Applies, but is not included in the permit.

Citation	Description	Applicability
63.7500(c-d)	Limited use and small boilers	Does not apply because the boilers are not limited use and are bigger than 5 mmBtu/hr.
63.7500(e)	Exception from Tables 1-2, 4, 11-13.	Applies but is not included in the permit.
63.7500(f)	Standards apply at all times	Does not apply because propane-fired boilers are not subject to any standards.
63.7501	Affirmative defense	Does not apply because boilers are not subject to any standards.
63.7505(a)	General compliance	Applies but is not included in the permit.
63.7505(c-d)	Compliance with emission limits	Does not apply because no emission limits apply to propane-fired boilers.
63.7510(a-d)	General testing and fuel analysis	Does not apply because no testing or fuel analysis is required.
63.7510(e)	Existing source initial compliance demonstration	Applies; see Permit Conditions 5.4 and 5.5.
63.7510(f-i)	Initial compliance demonstration for new, solid waste, EGU type sources	Does not apply because YFP's boilers are not any of the units listed.
63.7510(j)	Delayed initial compliance demonstration	Applies; see Permit Conditions 5.4.2 and 5.5.3.
63.7515(a-c)	Subsequent tests	Does not apply because no testing is required.
63.7515(d)	Subsequent tune-ups	Applies; see Permit Condition 5.4.1.
63.7515(e-f)	Subsequent fuel analyses and report	Does not apply because propane-fired boilers are not required to analyze fuel.
63.7515(g)	Delayed subsequent tune-up	Applies; see Permit Condition 5.4.2.
63.7515(h-i)	Light liquid testing and CO CEMS	Does not apply because propane-fired boilers do not burn liquid fuel and have no CO CEMS.
63.7520	Stack testing	Does not apply because propane-fired boilers are not required to test.
63.7521	Fuel analysis	Does not apply because fuel analysis is not required for propane-fired boilers.
63.7522	Emission averaging	Does not apply because propane-fired boilers have no emission limits.
63.7525	Monitoring	Does not apply because propane-fired boilers are not subject to limits that require monitoring.
63.7530(a-c, g-i)	Initial compliance using testing, fuel analysis, emission limits and monitoring	Do not apply because propane-fired boilers are not required to testing or fuel analysis.
63.7530(d-e)	Initial compliance notice for gas 1 subcategory	Apply; see Permit Condition 5.9.2.
63.7530(f)	Initial compliance notice for gas 1 subcategory	Applies but is not included in the permit.
63.7533	Efficiency credits	Does not apply because propane-fired boilers are not subject to emission limits.

Citation	Description	Applicability
63.7535	Continuous compliance monitoring data	Does not apply because propane-fired boilers are not subject to monitoring requirements.
63.7540(a)(1, 2-9, 14-19)	Work practice continuous compliance	Do not apply because propane-fired boilers are not subject to operating limits, fuel analysis, testing, bag leak detectors or CEMS.
63.7540(a)(10)	Work practice annual tune-up	Applies; see Permit Conditions 5.4.3 and 5.8.4.
63.7540(a)(11-12)	Work practice continuous compliance	Do not apply because YFP's boilers are bigger than 10 mmBtu/hr.
63.7540(a)(13)	Work practice continuous compliance	Applies; see Permit Condition 5.4.2.
63.7540(b-d)	Work practice continuous compliance	Do not apply because propane-fired boilers are not subject to limits or fuel analysis.
63.7541	Emission averaging	Does not apply because propane-fired boilers have no emission limits.
63.7545(a)	Notifications	Applies; see Permit Condition 5.9.
63.7540(b)	Initial notification	Applies but is a past, one-time requirement so is not in the permit.
63.7545(c-d)	Notification for new sources and tests	Do not apply because YFP's boilers are not new and propane-fired boilers are not required to test.
63.7545(e)(1, 8)	Notification of compliance status	Apply; see Permit Condition 5.9.
63.7545(e)(2-7)	Notification of compliance status	Do not apply because propane boilers are not required must only comply with (e)(1) and (e)(8).
63.7545(f-g)	Notification during curtailment	Does not apply because YFP is allowed to burn only propane.
63.7545(h)	Notification of fuel switch	Applies; see Permit Condition 5.11.3.
63.7550(a) Table 9, Items 1.a to 1.c	Report contents and frequency	Apply; see Permit Condition 5.10.
63.7550(a) Table 9, Item 1.d	Report contents for CMS	Does not apply because propane-fired boilers are not subject to CMS.
63.7550(b)(1-4)	Report schedule	Apply; see Permit Conditions 5.10.1 and 5.10.2.
63.7550(c)(1)	Report contents	Applies; see Permit Condition 5.10.3.
63.7550(c)(2-4)	Report contents	Do not apply because propane-fired boilers are not subject to fuel analysis, testing or CMS.
63.7550(c)(5)(i-iv, xiv, xvii)	Report contents	Apply; see Permit Condition 5.10.3.
63.7550(c)(5)(v-viii, ix-xiii, xv-xvi)	Report contents	Do not apply because propane-fired boilers are not subject to CMS, testing, emission limits, fuel analysis.
63.7550(d)	Report contents	Apply; see Permit Condition 5.10.3.7.

Citation	Description	Applicability
63.7550(h)(1-2)	Reporting	Do not apply because propane-fired boilers are not subject to testing or CEMS.
63.7550(h)(3)	Reporting electronically	Applies; see Permit Condition 5.10.4.
63.7555(a)(1)	Records	Applies; see Permit Condition 5.8.1.
63.7555(a)(2)	Records	Do not apply because propane-fired boilers are not subject to CMS, testing, opacity.
63.7555(b-g)	Records	Do not apply because propane-fired boilers are not subject to CMS, monitoring, emission limits, emission averaging, efficiency credits, or mercury specs.
63.7555(h)	Records for gas curtailments	Does not apply because YFP is allowed to burn only propane.
63.7555(i-j)	Startup and shutdown records	Apply; see Permit Conditions 5.8.2 and 5.8.3.
63.7560(a-c)	Records form and duration	Apply; see Permit Condition 5.8.5.
63.7565 Table 10	General provisions	See Table 4-4 below.
63.7570	Who implements?	Apply but are not included in the permit.
63.7575	Definitions	Apply but are not included in the permit except for “Energy Assessment” in Permit Condition 5.5.2.

Because 40 CFR Part 63, Subpart DDDDD applies to the boilers, Subpart A of Part 63 also applies. NESHAP Subpart DDDDD requirements that do not apply to the YFP facility are not included in the permit; requirements that apply but do not create specific requirements for YFP are also not included in the permit. Table 4-4 explains whether specific requirements of Subpart A apply to the boilers and where the requirements are located in the permit.

Table 4-4 – NESHAP Subpart A Applicability, 40 CFR Part 63

Citation	Description	Applicability
63.1 – 63.3	Applicability, definitions and abbreviations	Apply but are not included in the permit.
63.4(a)	Prohibited activities	Applies but are not included in the permit.
63.4(b)	Circumvention	Applies; see Permit Condition 4.20.
63.5	Preconstruction review	Applies but are not included in the permit.
63.6(a)	Compliance applicability	Applies but are not included in the permit.
63.6(b)	Compliance dates for new sources	Does not apply because YFP’s boilers are existing.
63.6(c)	Compliance dates for existing sources	Applies but is not included in the permit.
63.6(e), (f)(1), (h)(1)	Compliance and operation and maintenance	Do not apply according to Table 10 in Subpart DDDDD.
63.6(f)(2-3)	Methods for finding of compliance	Apply but are not included in the permit.
63.6(g)	Alternative emission standards	Does not apply because propane-fired boilers are not subject to emission standards.

Citation	Description	Applicability
63.6(h)(2-9)	Compliance with opacity	Does not apply because propane-fired boilers are not subject to opacity limits.
63.6(i)	Extension of compliance with emission standards	Does not apply because propane-fired boilers are not subject to emission standards.
63.6(j)	Presidential exemption	Applies but is not included in the permit.
63.7	Testing requirements	Does not apply because propane-fired boilers are not subject to testing.
63.8	Monitoring requirements	Does not apply because propane-fired boilers are not subject to monitoring.
63.9(a)	Notification applicability	Applies but is not included in the permit.
63.9(b)(1)	Initial notifications	Applies but is not included in the permit because it is a past requirement.
63.9(b)(2)	Initial notifications	Applies but is not included in the permit because it is a past requirement.
63.9(b)(4-5)	New source notifications	Do not apply because YFP's boilers are existing sources.
63.9(c)	Extension of compliance	Does not apply because propane-fired boilers are not subject to emission standards.
63.9(d)	Notifications for 63.6(b)	Does not apply because YFP's boilers are existing.
63.9(e)	Test notification	Does not apply because propane-fired boilers are not subject to testing.
63.9(f)	Opacity notifications	Does not apply because propane-fired boilers are not subject to opacity limits.
63.9(g)	CMS notifications	Does not apply because propane-fired boilers are not subject to CMS requirements.
63.9(h)(1)	Notification of compliance status	Applies but is not included in the permit.
63.9(h)(2-3)	Notification of compliance status	Applies; see Permit Condition 4.24.
63.9(h)(5)	Actual emission data	Does not apply because YFP was not subject to 63.5.
63.9(h)(6)	Advice from the administrator	Applies but is not included in the permit.
63.9(i)	Adjustments to time periods	Applies but is not included in the permit.
63.9(j)	Changes to provided information	Applies; see Permit Condition 4.25.
63.10(a)	Applicability	Applies but is not included in the permit.
63.10(b)(1)	General recordkeeping files	Applies; see Permit Condition 4.22.
63.10(b)(2)(i, iii-xiii)	General recordkeeping files	Do not apply because propane-fired boilers are not subject to emission limits, or monitoring and YFP's boilers have no controls.
63.10(b)(2)(ii)	Malfunction of process equipment records	Applies; see Permit Condition 4.21.
63.10(b)(2)(xiv)	Documentation supporting initial notifications and notifications of compliance status	Applies; see Permit Condition 4.23.
63.10(b)(3)	Applicability determination records	Applies but is not included in the permit.

Citation	Description	Applicability
63.10(c)	CMS recordkeeping	Does not apply because propane-fired boilers are not subject to CMS requirements.
63.10(d)(1)	General reporting	Applies but is not included in the permit.
63.10(d)(2-3)	Test and opacity reporting	Does not apply because propane-fired boilers are not subject to testing and opacity requirements.
63.10(d)(4)	Compliance extension progress reporting	Does not apply because propane-fired boilers are not subject to a compliance extension.
63.10(d)(5)	Periodic and immediate reporting	Do not apply according to Table 10 in Subpart DDDDD.
63.10(e)	Reports for CMS	Does not apply because propane-fired boilers are not subject to CMS requirements.
63.10(f)	Reporting Waivers	Applies but is not included in the permit.
63.11	Control device requirements	Do not apply according to Table 10 in Subpart DDDDD.
63.12	State authority and delegation	Applies but is not included in the permit.
63.13	Addresses	Applies but current EPA address is included in Permit Condition 3.40.
63.14	Incorporations by reference	Applies but is not included in the permit.
63.15	Availability of information	Applies but is not included in the permit.
63.16	Performance track provisions	Applies but is not included in the permit.

Section 111(d) and Section 129 Regulations. There are no CAA, Section 111(d) or 129 regulations that apply to the type of emission units at YFP.

Federal Air Rules for Reservations. On April 8, 2005, the EPA promulgated a Federal Implementation Plan for Reservations in Idaho, Oregon and Washington, commonly referred to as the Federal Air Rules for Reservations. The EPA published the FARR rules that generally apply to Indian Reservations in Region 10 in 40 CFR 49.121 to 49.139. The FARR rules that specifically apply on the Yakama Reservation (Sections 123, 124, 125, 126, 129, 130, 131, 135, 137, 138 and 139) are codified at 40 CFR 49.11101 to 49.11110. FARR requirements that do not apply to the YFP facility are not included in the permit; requirements that apply but do not create specific requirements for YFP are also not included in the permit. Table 4-5 explains whether specific requirements of the FARR apply to the YFP facility and, if included, where the requirements are located in the permit.

Table 4-5 – FARR Applicability, 40 CFR Part 49

Citation	Description	Applicability
49.121 – 49.122	Introduction and delegation	Apply, but are not included in the permit.
49.123(a-c)	Definitions, testing, monitoring, recordkeeping, reporting, and credible evidence and incorporation by reference	Apply, but are not included in the permit.
49.124(a-b, f)	Visible emission limits purpose, applicability and definitions	Apply, but are not included in the permit.
49.124(c)	Exemptions	Applies, see Permit Condition 3.10.

Citation	Description	Applicability
49.124(d)(1-2)	Visible emission limit	Applies; see Permit Conditions 3.9 and 3.11.
49.124(d)(3)	Visible emission limit for oil and solid fuel	Does not apply because only propane is burned.
49.124(e)	Reference method	Applies; see Permit Condition 3.9.
49.125(a-c, f)	PM limits purpose, applicability and definitions	Apply, but are not included in the permit.
49.125(d)(1, 3)	PM limits	Apply; see Permit Conditions 5.3, 6.1, 7.1, 8.1 and 9.1.
49.125(d)(2)	PM limit for wood fuel	Does not apply because only propane is burned.
49.125(e)	Reference method	Applies; see Permit Conditions 5.3, 6.1, 7.1, 8.1 and 9.1.
49.126(a-b, f)	Fugitive PM limits purpose, applicability and definitions	Apply, but are not included in the permit.
49.126(c)	Exemptions	Applies; see Permit Condition 3.17.
49.126(d-e)	Fugitive PM	Apply; see Permit Conditions 3.12-3.16 and 3.35.
49.129(a-c, f)	SO ₂ limits purpose, applicability and definitions	Apply, but are not included in the permit.
49.129(d)(1)	SO ₂ limit for combustion sources	Applies; see Permit Condition 5.2.
49.129(d)(2)	SO ₂ limit for process sources	Does not apply because none of YFP's processes emit SO ₂ .
49.129(e)	Reference method	Applies; see Permit Condition 5.2.
49.130(a-c, g)	Fuel sulfur limit purpose, applicability and definitions	Apply, but are not included in the permit.
49.130(d)(1-7)	Fuel sulfur limits for liquid and solid fuels	Does not apply because YFP does not burn any of the fuels listed.
49.130(d)(8)	Fuel sulfur limit for gaseous fuels	Applies; see Permit Condition 4.2.
49.130(e)(1-3)	Reference methods for liquid and solid fuels	Does not apply because YFP does not burn any of the fuels listed.
49.130(e)(4)	Reference method for gaseous fuels	Applies; see Permit Condition 4.2.1.
49.130(f)(1)(i, iii)	Recordkeeping for liquid and solid fuels	Do not apply because YFP does not burn any of the fuels listed.
49.130(f)(1)(ii)	Recordkeeping for gaseous fuels	Applies; see Permit Condition 4.3.
49.130(f)(2)	Recordkeeping for gaseous fuels	Applies; see Permit Condition 3.35.
49.130(f)(3)	Recordkeeping exemption for residences	Does not apply because YFP is not a residence.
49.131(a, b, f)	Open burning purpose and applicability	Apply, but are not included in the permit.
49.131(c, d, e)	Open burning	Apply; see Permit Conditions 3.4-3.8.
49.135	Detrimental emissions	Applies, but are not included in the permit.
49.137(a, b, d)	Air pollution episode purpose, applicability and definitions	Apply, but are not included in the permit.
49.137(c)(1-3)	Air pollution episodes	Apply, but are not included in the permit.
49.137(c)(4)(i-ii)	Air pollution episodes	Apply; see Permit Conditions 3.6 and 3.7.

Citation	Description	Applicability
49.137(c)(4)(iii)	Air pollution episodes	Apply, but are not included in the permit.
49.138(a-c, g)	Registration purpose, applicability and definitions	Apply, but are not included in the permit.
49.138(d)	Registration and reporting for Part 71 sources	Apply; see Permit Condition 3.46.2.
49.138(f)	Registration and reporting for Part 71 sources	Apply; see Permit Condition 3.46.
49.138(e)(1-2, 5-8)	Reporting for non-Part 71 sources	Do not apply because YFP is a Part 71 source.
49.138(e)(3)(i-xi, xiii-xiv)	Reporting for non-Part 71 sources	Do not apply because YFP is a Part 71 source.
49.138(e)(3)(xii)	Reporting for Part 71 sources	Apply; see Permit Condition 3.46.
49.138(e)(4)	Reporting for Part 71 sources	Apply; see Permit Conditions 3.46 and 3.46.1.
49.139	Non-Title V operating permits	Applies, but is not included in the permit.

Acid Rain Program. Title IV of the CAA created a SO₂ and NO_x reduction program found in 40 CFR Part 72. The program applies to any facility that includes one or more “affected units” that produce power. YFP’s boilers are not a “unit” as defined in 40 CFR § 72.2 because the boilers do not produce power.

Compliance Assurance Monitoring. CAM applies at the time of initial Title V permit issuance for emission units that (a) are subject to an emission limit, (b) employ a control device to comply with the limit, and (c) have post-control PTE equal to or greater than the major source threshold defined in Title V (generally, 100 tons per year). See 40 CFR Part 64. None of the emission units at the facility employ a control device (cyclones used to separate material from a pneumatic handling system are not considered control devices), so CAM does not apply to any emission units at the YFP facility.

Mandatory Greenhouse Gas Reporting Rule. This rule requires sources above certain emission thresholds to calculate, monitor, and report greenhouse gas emissions. According to the definition of "applicable requirement" in 40 CFR § 71.2, neither 40 CFR part 98, nor CAA § 307(d)(1)(V), the CAA authority under which 40 CFR part 98 was promulgated, are listed as applicable requirements for the purpose of Title V permitting. Although the rule is not an applicable requirement under 40 CFR part 71, the permittee is not relieved from the requirement to comply with the rule separately from compliance with their part 71 operating permit. It is the responsibility of each permittee to determine applicability to part 98 and to comply, if necessary.

4.2 Other Federal Requirements

EPA Trust Responsibility. As part of the EPA Region 10’s direct federal implementation and oversight responsibilities, Region 10 has a trust responsibility to each of the 271 federally recognized Indian tribes within the Pacific Northwest and Alaska. The trust responsibility stems from various legal authorities including the U.S. Constitution, Treaties, statutes, executive orders, historical relations with Indian tribes and, in this case, the Treaty of June 9, 1855. In general terms, the EPA is charged with considering the interest of tribes in planning and decision making processes. Each office within the EPA is mandated to establish procedures for regular and meaningful consultation and collaboration with Indian tribal governments in the development of EPA decisions that have tribal implications. Region 10’s Office of Air, Waste and Toxics has contacted the Tribe to invite consultation on this Title V operating permit project.

Endangered Species Act. Under this act, the EPA is obligated to consider the impact that a federal project may have on listed species or critical habitats. It is the EPA’s conclusion that the issuance of this Title V

permit will not affect a listed species or critical habitat because it does not authorize new emissions units, increase existing emission limits or impose any new work practice requirements. Therefore, no additional analysis and no additional requirements will be added to this permit for the ESA reasons. The EPA's no-effect determination concludes the EPA's obligations under Section 7 of the ESA. For more information about the EPA's obligations, see the Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities under Section 7 of the ESA, published by the FWS and NMFS (March 1998, Figure 1).

National Environmental Policy Act. Under Section 793(c) of the Energy Supply and Environmental Coordination Act of 1974, no action taken under the CAA shall be deemed a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969. This permit is an action taken under regulations implementing the CAA and is therefore exempt from the NEPA.

National Historic Preservation Act. As noted earlier, the issuance of this Title V permit does not authorize new emissions units, increase existing emission limits or impose any new work practice requirements. No changes to the facility are expected as a result of this permit action. Consequently, no adverse effects are expected, and further review under the NHPA is not necessary.

Environmental Justice Policy - Under Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed on February 11, 1994, the EPA is directed, to the greatest extent practicable and permitted by law, to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States. This permit action does not allow new or additional emissions and therefore impacts. As a result, there is no information available that indicates that there are disproportionately high and adverse impacts to a minority or low-income population.

4.3 Permit Conditions

This Title V operating permit compiles all of the applicable requirements that apply to the permittee. Additional monitoring, recordkeeping and reporting requirements have been created where needed so the permit assures compliance with all of the applicable requirements. In general, each permit condition in the permit is explained below. Certain permit conditions are self-explanatory, and thus are not further discussed. The permit is organized into the following nine sections:

- Permit Section 1: Source Information and Emission Units
- Permit Section 2: Standard Terms and Conditions
- Permit Section 3: General Requirements
- Permit Section 4: Facility-Specific Requirements
- Permit Section 5: Unit-Specific Requirements – Boilers #1-4
- Permit Section 6: Unit-Specific Requirements – Lumber Kilns #1-11
- Permit Section 7: Unit-Specific Requirements – Cyclones
- Permit Section 8: Unit-Specific Requirements – Bins
- Permit Section 9: Unit-Specific Requirements – MNFA (Miscellaneous Non-Fugitive Activities)

Permit Section 1 – Source Information and Emission Units

This permit section contains a brief description of the facility and a list of emission units. A more detailed description of the facility can be found in Section 2 of this Statement of Basis.

Permit Section 2 – Standard Terms and Conditions

This permit section includes generic compliance terms that are required in all Title V permits, but are not subject to the annual compliance certification requirements found in Permit Condition 3.49.

Permit Condition 2.1 explains that the language in the underlying regulations takes precedence over paraphrased language in the permit. Some applicable requirements are paraphrased in the permit with the intention of clarifying the requirement, but with no intention of changing the underlying meaning of the requirement. Where there is a difference between the language in a permit and an underlying regulation, the wording in the underlying regulation should be used to interpret and implement the requirement. This permit condition also notes some underlying authorities that may have been used to create additional requirements in this permit.

Permit Conditions 2.4 and 2.5 address a general permit shield which states that compliance with the permit is deemed compliance with the applicable requirements listed in the permit. The permittee is responsible for complying with any applicable requirements that exist but have not been included in the permit. The permittee did not request a specific permit shield for any specific requirement excluded from this permit and none is being granted other than for major source MACT requirements as discussed in Section 4.1 in this Statement of Basis.

Permit Conditions 2.9 through 2.11 address the expiration of the permit and the ramifications if the permittee does or does not renew their permit. It is important to note that, if the permittee does not submit a complete and timely renewal application, the permittee's right to operate is terminated. The expiration date of the permit is listed on the top right-hand corner of the front page of the permit. Specific requirements regarding permit renewal are in Permit Conditions 3.51 and 3.52.

Permit Conditions 2.12 through 2.14 address options for making certain physical and operational changes in the facility that do not require a permit modification. If the permittee uses any of these options, they must comply with the applicable recordkeeping requirement found in Permit Condition 3.32 and reporting requirements found in Permit Conditions 3.38 and 3.39.

Permit Section 3 – General Requirements

This permit section includes conditions that are required in all Title V permits. In some cases, facility-specific testing, monitoring, recordkeeping and reporting requirements for these permit conditions will be found in Section 4 of the permit because those requirements can vary from permit to permit. Unless otherwise specified, emission units are subject to the general requirements in Section 3 of the permit as well as the facility-specific and unit-specific requirements in Sections 4 through 9.

Permit Conditions 3.1 and 3.2 are general compliance schedule requirements. Because the EPA is not aware of any non-compliance at the time of permit issuance, there is no issue-specific compliance schedule in Section 4 of the permit.

Permit Condition 3.3 requires the permittee to allow EPA-authorized representatives access to the facility and required records.

Permit Conditions 3.4 through 3.8 restrict open burning wherever the FARR applies including at industrial facilities. If the permittee performs any open burning, recordkeeping requirements specific to open burning found in Permit Condition 3.33 will apply.

Permit Condition 3.9 through 3.11 limit visible emissions, require the use of either Reference Method 9 or a continuous opacity monitoring system for determining compliance with the limit, and provide exception to the rule. Because testing, monitoring, recordkeeping and reporting for assuring compliance with the visible emission limit can change based on the emission unit in question, the testing, monitoring, recordkeeping and reporting requirements are contained in facility-specific requirements in Section 4 of

the permit, or in each emission unit-specific section, as appropriate. The general monitoring, recordkeeping and reporting for this requirement is the periodic visible emissions survey (plant walkthrough) specified in Permit Conditions 4.4 through 4.10.

Permit Conditions 3.12 through 3.17 restrict fugitive particulate matter emissions and require a plan be created to assure the use of reasonable precautions to prevent fugitive emissions. The plan is based on a survey of the facility and is updated annually. This annual survey can be accomplished simultaneously with the periodic visible emission survey requirement in Permit Conditions 4.4 through 4.10, as long as both requirements are fully complied with.

Permit Condition 3.18 addresses requirements in the Chemical Accident Prevention Program found in 40 CFR Part 68. This program requires sources that use or store regulated substances above a certain threshold to develop plans to prevent accidental releases. This requirement is included in the permit as an applicable requirement because the facility is subject to Part 68 based on the quantity of propane stored onsite.

Permit Conditions 3.19 and 3.20 address the Stratospheric Ozone and Climate Protection Program found in 40 CFR Part 82. This program requires sources that handle regulated materials to meet certain procedural and certification requirements. There may be equipment at the facility that uses or contains chlorofluorocarbons (CFCs) or other materials regulated under this program. All air conditioning and refrigeration units must be maintained by certified individuals if they contain regulated materials.

Permit Condition 3.21 addresses asbestos demolition or renovation activity found in 40 CFR Part 61, Subpart M (NESHAP). This program requires sources that handle asbestos-containing materials to follow specific procedures. If the permittee conducts any demolition or renovation activity at their facility, they must assure that the project is in compliance with the federal rules governing asbestos, including the requirement to conduct an inspection for the presence of asbestos. This requirement is in the permit to address any demolition or renovation activity that may occur at the facility.

Permit Conditions 3.22 through 3.30 specify the procedures that must be followed whenever the permit requires emissions testing or sampling in an emission unit-specific section of the permit. If there is a conflict between these permit conditions and an emission unit-specific permit condition, the specific permit condition should be followed. Concentration-based emission limits required to be corrected to a specific oxygen concentration in the flue gas often do not contain a protocol to convert measured concentrations to specified oxygen levels. Permit Condition 3.28 provides a protocol for such a conversion.

Permit Condition 3.31 describes general recordkeeping that has been added to the permit using Part 71 authority to assure that there is good documentation for any monitoring that the permittee performs.

Permit Condition 3.32 describes recordkeeping requirements that apply only if the permittee makes off-permit changes. Certain off-permit changes are allowed in Permit Condition 2.12.

Permit Condition 3.33 describe recordkeeping requirements that apply if the permittee performs open burning. The open burning recordkeeping was added using Part 71 authority. Open burning is restricted in Permit Conditions 3.4 through 3.8.

Permit Condition 3.34 includes recordkeeping that applies to fee records including the duration that the records must be maintained. The duration is consistent with that required by Title V (see Permit Condition 3.35).

Permit Condition 3.35 sets the duration that records must be maintained. Both Title V and FARR records must be maintained for five years. These two requirements have been combined (streamlined) into one permit condition. If there is ever a conflict between these requirements and a more restrictive emission unit-specific permit condition, the specific permit condition should be followed.

Permit Conditions 3.36 and 3.37 require the permittee to submit or correct submitted information when requested by the EPA and as needed. The permittee has an ongoing obligation to assure that all data in its Title V application is correct and to notify the EPA of any errors or omissions.

Permit Condition 3.38 and 3.39 describe reporting requirements that apply only if the permittee makes off-permit changes (Permit Condition 3.38) or section 502(b)(10) changes (Permit Condition 3.39). Certain off-permit changes are allowed in Permit Condition 2.12. Section 502(b)(10) changes are allowed in Permit Conditions 2.13.

Permit Condition 3.40 includes the address for submittals to Region 10 and to the Tribe. All reports and notices, except for fee payments (see Permit Condition 3.43), should be sent to this address. Copies of each document sent to Region 10 should be sent to the Tribe.

Permit Conditions 3.41 through 3.45 require submittal of an annual emission inventory (of actual emissions) and payment of fees for Part 71 purposes. These requirements refer to Permit Condition 4.1 for the actual due date by which fees and emissions must be submitted each year. The per-ton fee rate varies each year; the permittee should contact the EPA to obtain the current rate. The submittal of the emission inventory is timed to coincide with the payment of fees because annual Title V fees are based on actual emissions generated during the previous calendar year. Appendix A to this statement of basis documents the methods, techniques, and assumptions that the EPA believes provide the most accurate basis for estimating actual emissions for this facility. As explained in Section 3.2 of this statement of basis, the emission estimation techniques listed in this statement of basis should be used to calculate the annual emissions inventory, unless the permittee has other information showing why another technique more accurately represents emissions. Also note that the actual emission estimates differ from the facility's PTE because actual emissions are calculated based on actual operations, not maximum operational capacity.

Note that the FARR emission inventory required in Permit Condition 3.46 to be reported at the same time can be combined with the Part 71 emission inventory as long as it is clear which emissions inventory is for which purpose, because the pollutant lists for each emission inventory are slightly different. At this time, greenhouse gases are neither regulated air pollutants nor regulated air pollutant (for fee calculation) as those terms are defined at 40 CFR § 71.2. The permittee is not required to pay Title V fees on its GHG emissions.

Permit Condition 3.46 requires submittal of an annual emission inventory (of actual emissions) for FARR registration purposes. Appendix A to this statement of basis documents the methods, techniques, and assumptions that the EPA believes provide the most accurate basis for estimating actual emissions for this facility. As explained in Section 3.2 of this statement of basis, the emission estimation techniques listed in this statement of basis should be used to calculate the annual emissions inventory, unless the permittee has other information showing why another technique more accurately represents emissions. Also note that the actual emission estimates differ from the facility's PTE because actual emissions are calculated based on actual operations, not maximum operational capacity.

Note that the FARR emission inventory is required to be submitted at the same time as the Part 71 fees and emission inventory required in Permit Conditions 3.41 through 3.45. The Part 71 and FARR emission inventories can be combined as long as it is clear which emissions inventory is for which purpose, because the pollutant lists for each emission inventory are slightly different.

Permit Conditions 3.47 and 3.48 require semi-annual monitoring reports and prompt deviation reports. Determinations of deviations, continuous or intermittent compliance status, or violations of the permit are not limited to the testing or monitoring methods required by the underlying regulations or this permit. Failure to meet any permit term or permit condition, including emission standards, is considered a deviation. Other credible evidence (including any evidence admissible under the federal rules of

evidence) must be considered by the source and the EPA in such determinations. The timing for reporting deviations, as well as other data collected, depends on the circumstances, as explained in these permit conditions.

Permit Condition 3.49 requires an annual compliance certification. The permittee must certify compliance with the permit conditions in sections 3 through 9. The permittee does not need to annually certify compliance with the provisions in permit sections 1 or 2. Consistent with Permit Condition 2.6, however, if a permittee is aware of any information that indicates noncompliance, that information must be included in the annual compliance certification. In a year when the permit is renewed or revised, the permittee must address each permit for the time that that permit was in effect. Forms for the annual compliance certifications may be obtained on the internet at <http://www.epa.gov/air/oaqps/permits/p71forms.html>.

Permit Condition 3.50 requires the permittee to certify the truth, accuracy and completeness of all documents (notices, reports, data, and etc.) submitted to Region 10. The certification must be signed by a responsible official as defined in 40 CFR § 71.2. The facility's responsible official is listed on the first page of the permit. The permittee should request an administrative amendment of the permit if the responsible official for the facility changes.

Permit Conditions 3.51 and 3.52 require the permittee to submit an application for renewal and describe some of the information that must be included in the application. As explained in Permit Conditions 2.9 through 2.11, failure to submit a complete application on time terminates the permittee's right to operate. The expiration date of the permit is listed on the top right-hand corner of the front page of the permit.

Permit Section 4 – Facility-Specific Requirements

This permit section includes applicable requirements and related testing, monitoring, recordkeeping and reporting that apply either to multiple emission units or on a facility-specific basis. Unless otherwise specified, emission units are subject to the facility-specific requirements in Section 4 of the permit as well as the general and unit-specific requirements in Sections 3 and 5 through 9 of the permit.

Permit Conditions 4.1 lists the due date for the annual fees and emission reports required in Permit Conditions 3.41 through 3.46.

Permit Conditions 4.2 and 4.3 limit the sulfur content of the propane fuel burned in any combustion device, specify the method for determining compliance and specify the monitoring and recordkeeping. The facility burns only propane in the large log mill boilers and will convert the small log mill boilers to burn only propane before re-starting them. The underlying rule allows the permittee to simply keep vendor records showing that the sulfur content of the propane is below the limit of 1.1 grams/dscm. Per the GPA Liquefied Petroleum Gas Specifications Standard 2140-97, HD-5 grade propane is limited to 0.147 grams/dscm sulfur (using AP-42 conversion factors: $123 \text{ ppmw} \times 28.8 / 32 = 110.7 \text{ ppmv}$ and $110.7 \text{ ppmv} \times 32 / 0.02404 \times 10^6 = 0.147 \text{ grams/dscm}$), so the permittee can satisfy the requirement to have vendor records by simply documenting that only HD-5 propane is burned.

Permit Conditions 4.4 through 4.10 require a quarterly survey (also called a plant walkthrough) for visible and fugitive emissions as well as specific follow-up steps (investigation, corrective action, RM9 observation and additional recordkeeping and reporting) if visible or fugitive emissions are observed. If observed visible or fugitive emissions cannot be eliminated within 24 hours, a tiered sequence of RM9 opacity determinations must be performed beginning with an initial 30-minute period of readings every 15 seconds. The frequency (e.g. daily or weekly) for conducting follow-up RM9 opacity readings is based upon whether any 6-minute average opacity exceeds 20%. Observations of visible or fugitive emissions during a survey are not considered deviations; however, any resulting RM9 6-minute average opacity determination above 20% is considered a permit deviation pursuant to Permit Conditions 3.47 and 3.48. The annual fugitive particulate matter survey required in Permit Condition 3.13 can be accomplished

simultaneously with a quarterly survey required in this permit condition as long as both requirements are fully complied with.

This permit condition serves as the periodic monitoring for several fugitive and particulate matter limits found in the permit. This requirement applies to emission sources that normally do not exhibit visible or fugitive emissions. If the permittee prefers a specific periodic monitoring approach for any emission sources subject to this requirement, the permittee can propose a new approach as a permit modification.

Permit Conditions 4.11 and 4.12 have been included in the permit because a December 2002 change to the PSD regulation applicability test for modifications resulted in a new applicable requirement for PSD major sources. In summary, when the permittee considers a plant modification project to be exempt from PSD via the method specified in 40 CFR §§ 52.21(b)(41)(ii)(a) through (c) and there is a reasonable possibility that there will be a significant emissions increase resulting from the project, then the permittee must fulfill specified requirements related to documentation, monitoring, and notification. This term will be relevant to the facility only when the permittee is contemplating making physical or operational changes to the facility. In those instances it is strongly recommended that the permittee contact Region 10 to discuss their plans and verify their assumptions.

Permit Conditions 4.13 through 4.20 are generally applicable requirements that apply to any emission unit that is or becomes subject to NSPS. Because 40 CFR Subpart Dc applies to YFP's boilers, all of these conditions currently apply to the boilers, as denoted in the headings.

Permit Conditions 4.21 through 4.26 are generally applicable requirements that apply to YFP because YFP's boilers are subject to 40 CFR Subpart DDDDD, only burn propane and have capacities between 10 and 30 mmBtu/hr.

Permit Section 5 – Unit-Specific Requirements – Boilers #1-4

Permit Condition 5.1 restricts YFP to combusting only propane in the boilers. The large log mill boilers were converted to burn only propane in 2014. YFP has voluntarily committed to converting the small log mill boilers to burning only propane before those boilers are restarted. All of the boilers are subject to the major source boiler MACT; only the requirements that apply to propane fired boilers are addressed in the permit.

Permit Condition 5.2 limits the sulfur dioxide emissions from the boilers and describes the emission testing methods for determining compliance. As the boilers only use propane as fuel, SO₂ emissions are expected to be well below the emission limit of 500 ppm_{dv} at 7% O₂. For an example, see the calculation below.

$$\begin{aligned}\text{SO}_2 \text{ concentration} &= (\text{EF}) \times (\text{boiler mgal/hr}) / (\text{f-factor}) / (\text{boiler mmBtu/hr}) / (\text{conversion factor}) \\ &= (1.5) \times (0.318) / (8710) / (29.1) / (1.66 \times 10^{-7}) \\ &= 11.3 \text{ ppm}_{\text{dv}} \text{ at } 0\% \text{ O}_2\end{aligned}$$

Where:

EF = lb/mgal – see SO₂ emission factor used in Appendix A

boiler mgal/hr = (29.1 mmBtu/hr) / (91.5 mmBtu/mgal) – see calculation in Appendix A

f-factor = dscf/mmBtu - see 40 CFR 60, Appendix A, Reference Method 19, Table 19-2

boiler mmBtu/hr = 29.1 mmBtu/hr – see capacity used in Appendix A

conversion factor = ppm / lb/dscf - see 40 CFR 60, Appendix A, Reference Method 19, Table 19-1

Permit Condition 5.3 limits the particulate matter (PM) emissions from the boiler to 0.2 gr/dscf at 7% O₂ and describes the emission testing method for determining compliance. As the boilers only use propane as

fuel, PM emissions are expected to be well below the emission limit. For an example, see the calculation below.

$$\begin{aligned}\text{PM grain loading} &= (\text{EF}) \times (\text{boiler mgal/hr}) / (\text{f-factor}) / (\text{boiler mmBtu/hr}) \times (\text{conversion factor}) \\ &= (0.2) \times (0.318) / (8710) / (29.1) \times (7000) \\ &= 0.0018 \text{ gr/dscf at } 0\% \text{ O}_2\end{aligned}$$

Where:

EF = lb/mgal – see PM emission factor used in Appendix A

boiler mgal/hr = (29.1 mmBtu/hr) / (91.5 mmBtu/mgal) – see calculation in Appendix A

f-factor = dscf/mmBtu - see 40 CFR 60, Appendix A, Reference Method 19, Table 19-2

boiler mmBtu/hr = 29.1 mmBtu/hr – see capacity used in Appendix A

conversion factor = grains/lb

Permit Condition 5.4 requires annual tune-ups of the boilers with the first one due by January 31, 2016, and specifies what must be included in the tune-ups.

Permit Condition 5.5 requires one energy assessment of the boilers by January 31, 2016, and specifies what must be addressed in the assessment.

Permit Condition 5.6 is the general NESHAP requirement to employ good air pollution control practices that was written specifically for boilers subject to the major source MACT.

Permit Condition 5.7 specifies the fuel recordkeeping requirements for the boilers. While Condition 5.7.3 requires records be kept for only two years, this permit, in Condition 3.35 requires all records be kept for five years.

Permit Condition 5.8 specifies the records that must be maintained consistent with Condition 4.24. Conditions 5.8 and 4.24 should be read together. Condition 5.8.5 clarifies that records only have to be kept onsite for the first two of the required five years.

Permit Condition 5.9 requires a notification of compliance status as specified in Condition 4.25 regarding the tune-ups and energy assessment required in Condition 5.4 and 5.5. These two requirements should be read together.

Permit Condition 5.10 requires annual compliance reports and describes the contents of the reports and technique for submittal.

Permit Condition 5.11 requires notification when switching fuels. Although YFP has committed to converting the small log mill boilers to burning only propane before restarting those boilers, this condition was included in the permit to ensure YFP notifies Region 10 when the boilers are in fact converted. The fuel conversion is critical to comply with this permit and changes how the NESHAP applies to the boilers, the original reason for this requirement. The permit currently reflects how the NESHAP will apply to the boilers after conversion to propane.

Permit Section 6 – Unit-Specific Requirements – Lumber Kilns #1-11

Permit Condition 6.1 limits particulate matter emissions and describes the test method for determining compliance. No unit-specific testing or monitoring is required. The visible and fugitive emission monitoring required in Permit Conditions 4.4 through 4.10 will serve as the periodic monitoring to assure compliance for these emission units.

Permit Condition 6.2 limits the kiln temperature when drying pine lumber to 200°F. Having an enforceable limit on the kiln temperature allows the use of the low temperature emission factor when calculating emissions. This effectively lowers the kiln (and plantwide) potential to emit VOC emissions to below 250 tpy.

Permit Condition 6.3 requires monitoring of kiln drying temperatures for use in estimating emissions. The permittee is allowed to simply assume high temperature drying in the case where the temperature monitoring is not operated.

Permit Section 7 – Unit-Specific Requirements – Cyclones

Permit Condition 7.1 limits particulate matter emissions and describes the test method for determining compliance. No unit-specific testing or monitoring is required. The visible and fugitive emission monitoring required in Permit Conditions 4.4 through 4.10 will serve as the periodic monitoring to assure compliance for these emission units.

Permit Section 8 – Unit-Specific Requirements – Bins

Permit Condition 8.1 limits particulate matter emissions and describes the test method for determining compliance. No unit-specific testing or monitoring is required. The visible and fugitive emission monitoring required in Permit Conditions 4.4 through 4.10 will serve as the periodic monitoring to assure compliance for these emission units.

Permit Section 9 – Unit-Specific Requirements – MNFA

Permit Condition 9.1 limits particulate matter emissions and describes the test method for determining compliance. No unit-specific testing or monitoring is required. The visible and fugitive emission monitoring required in Permit Conditions 4.4 through 4.10 will serve as the periodic monitoring to assure compliance for this emission unit.

5. Public Participation

5.1 Public Notice and Comment

As required in 40 CFR §§ 71.11(a)(5) and 71.8, all draft operating permits must be publicly noticed and made available for public comment. The public notice of permit actions and public comment period is described in 40 CFR § 71.11(d). There is a 30 day public comment period for actions pertaining to a draft permit. For this permit action, the requirements of 40 CFR §§ 71.11(a)(5) and 71.8 were satisfied as follows:

1. Published the public notice for this draft permit in a daily or weekly newspaper of general circulation in the area affected by this source.
2. Provided a copy of the public notice to: the permit applicant, the affected states, the air pollution control agencies of affected states, the Tribal, city and county executives, any comprehensive land use planning agency, any state or federal land manager whose lands may be affected by emissions from the source, the local emergency planning authorities which have jurisdiction over the area where the source is located and all persons who submitted a written request to be included on Region 10's mailing list for Title V permitting actions;
3. Made available on the Region 10 public notice website [<http://yosemite.epa.gov/R10/homepage.nsf/Information/R10PN/>] during the public comment period, a copy of the public notice and the draft permit and statement of basis prepared by Region 10;

4. Made available at the Region 10 office in Seattle, Washington, and at the locations listed below, a copy of the public notice, draft permit, the statement of basis, the application, and relevant supporting materials:

Mary L. Goodrich Toppenish Library
 1 South Elm Street
 Toppenish, Washington 98948

Yakima Central Library
 102 North 3rd Street
 Yakima, Washington 98901

5.2 Response to Public Comments and Permit Issuance

The public comment period closed on September 23, 2015. No comment were received. As required in 40 CFR § 71.11(i), the permit is effective immediately upon issuance. The permit will expire five years after issuance unless the permittee submits a timely and complete renewal application at least six months, but no more than 18 months, prior to the permit’s expiration date.

6. Abbreviations and Acronyms

Also see 40 CFR §§ 60.2, 60.41c, 63.2, 63.2292, 63.7575 and 71.2.

§	Section
Btu	British thermal units
CAA	Clean Air Act [42 U.S.C. section 7401 et seq.]
CAM	Compliance assurance monitoring
CFR	Code of Federal Regulations
CO	Carbon monoxide
COMS	Continuous opacity monitoring system
DC	Dry chips
dscf	Dry standard cubic feet
EJ	Environmental Justice
EPA	United States Environmental Protection Agency (also U.S. EPA)
ESA	Endangered Species Act
EU	Emission Unit
FARR	Federal Air Rules for Reservations
FR	Federal Register
gal	gallon(s)
GC	Green chips
gr	Grains (7,000 grains = 1 pound)
GHG	Greenhouse Gases
HAP	Hazardous air pollutant
HF	Hog fuel (aka hogged fuel or wood waste)
hr	Hour
lb	Pound (lbs = pounds)
lbm	Pound-mole
kPa	Kilopascals
LLM	Large log mill
MACT	Maximum Achievable Control Technology
m	Thousand
mm	Million
NEPA	National Environmental Protection Act
NESHAP	National Emission Standards for Hazardous Air Pollutants (40 CFR Parts 61 and 63)
NHPA	National Historical Preservation Act
NO _x	Nitrogen oxides

NSPS	New Source Performance Standard
PM	Particulate matter
PM ₁₀	Particulate matter less than or equal to 10 microns in aerodynamic diameter
PM _{2.5}	Particulate matter less than or equal to 2.5 microns in aerodynamic diameter
ppmdv	Parts per million on a dry, volume basis
ppmw	parts per million on a weight basis
PSD	Prevention of significant deterioration
psi	Pounds per square inch
PTE	Potential to emit
Region 10	U.S. Environmental Protection Agency, Region 10
S	Sulfur
SD	Sander dust
SH	Shavings
SLM	Small log mill
SO ₂	Sulfur dioxide
tpy	Tons per year
VOC	Volatile organic compound
YFP	Yakama Forest Products

Appendix A

Potential Emissions Inventory

Last Revised: September 29, 2015

Statement of Basis

Title V Operating Permit

R10T5120000

Yakama Forest Products
White Swan, Washington

Appendix A: Potential Emissions Inventory

Summary of Facility Non-HAP Potential to Emit

Non-Fugitive Emissions¹, (tons per year)

	Boilers	Kilns	Cyclones	Bins	MNFA	MFA	PT	Non-Fugitive Subtotal
	Boilers #1-4	Kilns #1-11	Cyclones #1-4	Bins #1-7	Miscellaneous Non-Fugitive Activities	Miscellaneous Fugitive Activities	Plant Traffic	
Carbon Monoxide (CO)	38.8							39
Lead (Pb)	0.0							0
Nitrogen Oxides (NO _x)	67.2							67
Particulate (PM) ²	1.0	5.1	16.3	0.09	26.1			49
Inhalable Coarse Particulate (PM ₁₀)	3.6	5.1	13.9	0.04	13.1			36
Fine Particulate (PM _{2.5})	3.6	5.1	8.2	0.01	6.5			23
Sulfur Dioxide (SO ₂)	7.8							8
Volatile Organic Compounds (VOC)	5.2	198.2	14.0					217
Greenhouse Gas (CO ₂ e)	64,653							64,653

Fugitive Emissions, (tons per year)

	Boilers	Kilns	Cyclones	Bins	MNFA	MFA	PT	Fugitive Subtotal
	Boilers #1-4	Kilns #1-11	Cyclones #1-4	Bins #1-7	Miscellaneous Non-Fugitive Activities	Miscellaneous Fugitive Activities	Plant Traffic	
Carbon Monoxide (CO)								0
Lead (Pb)								0
Nitrogen Oxides (NO _x)								0
Particulate (PM) ²				0.13		22.8	165.9	189
Respirable Particulate (PM ₁₀)				0.06		11.4	40.1	52
Fine Particulate (PM _{2.5})				0.01		5.7	6.5	12
Sulfur Dioxide (SO ₂)								0
Volatile Organic Compounds (VOC)								0
Greenhouse Gas (CO ₂ e)								0

Total Non-Fugitive and Fugitive Emissions, (tons per year)

	Boilers	Kilns	Cyclones	Bins	MNFA	MFA	PT	Plantwide PTE
	Boilers #1-4	Kilns #1-11	Cyclones #1-4	Bins #1-7	Miscellaneous Non-Fugitive Activities	Miscellaneous Fugitive Activities	Plant Traffic	
Carbon Monoxide (CO)	38.8							39
Lead (Pb)	0.00							0
Nitrogen Oxides (NO _x)	67.2							67
Particulate (PM) ²	1.0	5.1	16.3	0.2	26	22.8	165.9	237
Respirable Particulate (PM ₁₀)	3.6	5.1	13.9	0.1	13	11.4	40.1	87
Fine Particulate (PM _{2.5})	3.6	5.1	8.2	0.0	7	5.7	6.5	36
Sulfur Dioxide (SO ₂)	7.8							8
Volatile Organic Compounds (VOC) ³	5.2	198.2	14.0					217
Greenhouse Gas (CO ₂ e)	64,653							64,653

Notes:

¹ Only non-fugitive emissions are considered for this facility in determining Title V applicability given that it is a sawmill and not one of the 27 listed source categories required to consider fugitive emissions. See definition of "major source" at 40 CFR § 71.2.

² PM is not a pollutant considered in determining whether a source is subject to the requirement to obtain a Title V permit; however, PM emissions are considered in determining whether a facility/project is a major PSD source/modification and whether a source is subject to compliance assurance monitoring.

³ Additional sources of VOC likely exist in the mill, for which emission factors have not yet been identified.

Appendix A: Potential Emissions Inventory

Summary of Facility HAP Potential to Emit

Total Non-Fugitive and Fugitive Emissions, (tons per year)

Hazardous Air Pollutants (HAP)	Boilers #1-4	Kilns #1-11	Cyclones #1-4	Single HAP Plantwide Totals
Trace Metal Compounds				
Arsenic Compounds	9.28E-05			9.3E-05
Beryllium Compounds	5.57E-06			5.6E-06
Cadmium Compounds	5.10E-04			5.1E-04
Chromium Compounds (including hexavalent)	6.50E-04			6.5E-04
Cobalt Compounds	3.90E-05			3.9E-05
Manganese Compounds	1.76E-04			1.8E-04
Mercury Compounds	1.21E-04			1.2E-04
Nickel Compounds	9.74E-04			9.7E-04
Selenium Compounds	1.11E-05			1.1E-05
Organic Compounds				
Acetaldehyde		5.65E+00		5.6E+00
Acrolein		2.67E-01		2.7E-01
Acenaphthene*	8.35E-07			8.4E-07
Acenaphthylene*	8.35E-07			8.4E-07
Anthracene*	1.21E-06			1.2E-06
Benz(a)anthracene*	8.35E-07			8.4E-07
Benzene	9.74E-04			9.7E-04
Benzo(a)pyrene*	5.57E-07			5.6E-07
Benzo(b)fluoranthene*	8.35E-07			8.4E-07
Benzo(g,h,i)perylene*	5.57E-07			5.6E-07
Benzo(k)fluoranthene*	8.35E-07			8.4E-07
Chrysene*	8.35E-07			8.4E-07
Dibenzo(a,h)anthracene*	5.57E-07			5.6E-07
Dichlorobenzene	5.57E-04			5.6E-04
7,12-Dimethylbenz(a)anthracene*	7.42E-06			7.4E-06
Fluoranthene*	1.39E-06			1.4E-06
Fluorene*	1.30E-06			1.3E-06
Formaldehyde	3.48E-02	1.67E+00		1.7E+00
Hexane	8.35E-01			8.4E-01
Indeno(1,2,3-cd)pyrene*	8.35E-07			8.4E-07
Methanol		4.31E+01	5.22E-02	4.3E+01
2-Methylnaphthalene*	1.11E-05			1.1E-05
3-Methylchloroanthracene*	8.35E-07			8.4E-07
Naphthalene*	2.83E-04			2.8E-04
Phenanathrene*	7.89E-06			7.9E-06
Polycyclic Organic Matter (POM)	3.24E-04			3.2E-04
Propionaldehyde		1.85E-01		1.8E-01
Pyrene*	2.32E-06			2.3E-06
Toluene	1.58E-03			1.6E-03
TOTAL **	0.9	50.9	0.1	51.8

Predicted Highest Plantwide Single HAP 43.2 tons per year, methanol
 Predicted Plantwide HAP Total 51.8 tons per year

* These HAPs are subject to the 10 tons/year major source threshold individually, but are also considered POM that are then, in aggregate, also subject to the 10 tons/year major source threshold.

** Because all of the emitted pollutants that are POMs have already been accounted for individually, the POM calculated PTE has not been included in the totals to avoid double-counting. Other sources of HAPs likely exist in the mill, for which emission factors have not yet been identified. When emission factors become available, additional sources will be added.

Appendix A: Potential Emissions Inventory

Non-HAP Potential to Emit

Emission Unit: **Boilers #1-4**

Description: Two Superior brand boilers are located in the SLM, and two Superior brand are located in the LLM.

SLM: Model # 6-5-3000, Serial # 13796, 24.92 mmBTU/hr; and Model # 7-4-2500, Serial # 14159, 24.92 mmBTU/hr

LLM: both Model # 6-5-5000, Serial # 14921 and 14922, both 29.1 mmBtu/hr

Maximum Steam Production: SLM: 20,700 and 21,562 lb/hr = 42,262 pph total

LLM: 23,252 lb/hr each = 46,504 pph total

LLM boiler steam flow estimated based on original design heat-input-to-steam-output ratio = 29.1 mmBtu x (33,000 pph / 41.3 mmBtu) = 23,252 pph steam

Control Device: None

Fuel: Propane (assume SLM boilers are converted to propane from oil)

Startup: SLM: 1998 and 2001; and LLM: 2002

Design Maximum Heat Input Capacity: 108.04 MMBtu/hr (total for all four)

1.18 mgal/hr (assuming 91.5 mmBtu/mgal from AP-42, Section 1.5.3.1)

Operation: 8,760 hours per year

NON-FUGITIVE EMISSIONS

Criteria Pollutant Emissions	EF (lb/mgal)	PTE (tpy)	EF References and Notes
Carbon Monoxide (CO)	7.5	38.8	AP-42, Table 1.5-1
Lead (Pb)	0	0.0	No lead emissions are expected from propane combustion.
Nitrogen Oxides (NO _x)	13	67.2	AP-42, Table 1.5-1
Particulate (PM)	0.2	1.0	AP-42, Table 1.5-1 (filterable only)
Inhalable Coarse Particulate (PM ₁₀)	0.7	3.6	AP-42, Table 1.5-1 (assumed to be similar to natural gas where all PM is <1 micron diameter - see AP-42, Table 1.4-2)
Fine Particulate (PM _{2.5})	0.7	3.6	AP-42, Table 1.5-1 (assumed to be similar to natural gas where all PM is <1 micron diameter - see AP-42, Table 1.4-2)
Sulfur Dioxide (SO ₂)	1.5	7.8	AP-42, Table 1.5-1: EF = 0.10S, where S is the sulfur content expressed in grains per 100 cf gas vapor. For PTE purposes, the sulfur content is assumed to be 15 grains/100 cf gas vapor based on the Gas Processors Association liquefied petroleum gas standard of 185 ppmw at standard conditions: 185 ppmw x 44 (MW of propane) x 0.001845 = 15. The actual S content is often much lower to meet corrosion specifications.
Volatile Organic Compounds (VOC)	1.0	5.2	AP-42, Table 1.5-1 (TOC): assume TOC adequately represents VOC for propane combustion

NON-FUGITIVE EMISSIONS

Greenhouse Gas Emissions (CO ₂ Equivalent)	EF (lb/mgal)	PTE (tpy)	EF Reference and Notes
Carbon Dioxide (CO ₂)	12,500	64,647	AP-42, Table 1.5-1
Methane (CH ₄)	0.2	1.0	AP-42, Table 1.5-1
Nitrous Oxide (N ₂ O)	0.9	4.7	AP-42, Table 1.5-1

TOTAL 64,653

Appendix A: Potential Emissions Inventory

Non-HAP Potential to Emit

Emission Unit: **Kilns #1-11**

Description: Lumber drying; the permits limits pine drying to less than 200F

Control Device: None

Work Practice Requirements: None

Fuel: None - indirect steam provided by propane fired boilers

Predominant Species Dried: Douglas Fir, Ponderosa Pine, Grand (White) Fir

Installed: SLM: #1-3 1997, #4 2001; LLM: #5-9 2002, #10-11 2005

Annual Capacity: See table below; values are in mbf/yr and represent the maximum amount that can be dried if only that species is dried all year. Values were calculated by YFP using the mill economic maximization model without any limit on hours of operation and were provided to Region 10 on July 23, 2015. The LLM is constrained by steam generation capacity; the SLM is constrained by kiln capacity.

Mill, Kilns	Grand Fir	Douglas Fir	Pine
SLM, #1-4	88,815	80,618	61,879
LLM, #5-11	116,527	116,393	77,184
Total	205,342	197,011	139,063

NON-FUGITIVE EMISSIONS

Pollutant Emissions	EF (lb/mbf)	PTE (tpy)	EF Notes
Carbon Monoxide (CO)	0	0.0	No CO emissions are expected.
Lead (Pb)	0	0.0	No lead emissions are expected.
Nitrogen Oxides (NO _x)	0	0.0	No NO _x emissions are expected.
Particulate (PM)	0.05	5.1	Reference 1 - Because the facility has the ability to dry both resinous and non-resinous softwood species, to be conservative the higher of the two EF and capacities (non-resinous, Grand Fir) were selected to determine PTE. Grand Fir is assumed to be the same as White Fir.
Respirable Particulate (PM ₁₀)	0.05	5.1	Reference 1 - Because the facility has the ability to dry both resinous and non-resinous softwood species, to be conservative the higher of the two EF and capacities (non-resinous, Grand Fir) were selected to determine PTE. Grand Fir is assumed to be the same as White Fir.
Fine Particulate (PM _{2.5})	0.05	5.1	Reference 1 - Because the facility has the ability to dry both resinous and non-resinous softwood species, to be conservative the higher of the two EF and capacities (non-resinous, Grand Fir) were selected to determine PTE. Grand Fir is assumed to be the same as White Fir.
Sulfur Dioxide (SO ₂)	0	0.0	No SO ₂ emissions are expected.
Volatile Organic Compounds (VOC)	2.8505	198.2	Reference 2 - Because kiln capacity and emission factors vary with species dried, PTE is based upon the highest emitting combination is selected considering Grand Fir and Douglas Fir dried at temperatures above 200°F and pine dried at temperatures at or below 200°F because the permit limits pine drying to low temperatures, highest emissions for that temperature range was selected to determine PTE. To be conservative, it is assumed that the pine is Western White Pine.

NON-FUGITIVE EMISSIONS

Greenhouse Gas Emissions (CO ₂ Equivalent)	EF (lb/mbf)	PTE (tpy)	EF Reference
Carbon Dioxide (CO ₂)	0	0.0	No carbon dioxide is emitted from the kilns
Methane (CH ₄)	0	0.0	No methane is emitted from the kilns
Nitrous Oxide (N ₂ O)	0	0.0	No nitrous oxide is emitted from the kilns
TOTAL		0	

EF References

1	EPA Region 10 Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country, May 8, 2014. See online at:																								
2	EPA Region 10 HAP and VOC Emission Factors for Lumber Drying, December 2012. See online at: http://yosemite.epa.gov/R10/AIRPAGE.NSF/Permits/tvop/ . An excerpt, showing PTE, follows: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th></th> <th>Max Kiln Temp</th> <th>VOC, lb/mbf</th> <th>PTE</th> </tr> </thead> <tbody> <tr> <td>White Fir (Grand Fir)</td> <td>>200</td> <td>1.0902</td> <td>112</td> </tr> <tr> <td>Douglas Fir</td> <td>>200</td> <td>1.6969</td> <td>167</td> </tr> <tr> <td>Lodgepole Pine</td> <td>≤200</td> <td>1.5293</td> <td>106</td> </tr> <tr> <td>Ponderosa Pine</td> <td>≤200</td> <td>2.3450</td> <td>163</td> </tr> <tr> <td>Western White Pine</td> <td>≤200</td> <td>2.8505</td> <td>198</td> </tr> </tbody> </table>		Max Kiln Temp	VOC, lb/mbf	PTE	White Fir (Grand Fir)	>200	1.0902	112	Douglas Fir	>200	1.6969	167	Lodgepole Pine	≤200	1.5293	106	Ponderosa Pine	≤200	2.3450	163	Western White Pine	≤200	2.8505	198
	Max Kiln Temp	VOC, lb/mbf	PTE																						
White Fir (Grand Fir)	>200	1.0902	112																						
Douglas Fir	>200	1.6969	167																						
Lodgepole Pine	≤200	1.5293	106																						
Ponderosa Pine	≤200	2.3450	163																						
Western White Pine	≤200	2.8505	198																						

Appendix A: Potential Emissions Inventory

Non-HAP Potential to Emit

Emission Unit: **Cyclones**

Description: Cyclone C-1 is in the SLM; cyclones C-2, C-3 and C-4 are in the LLM. Cyclone C-1 separates shavings from a pneumatic handling system into Bin SH-1. Cyclone C-2 separates sawdust from a pneumatic handling system onto the hog fuel conveyor belt. Cyclone C-3 separates green chips from a pneumatic handling system into Bin GC-2. Cyclone C-4 separates shavings from a pneumatic handling system into Bin SH-2.

Control Device: none

Capacity: See table below; values were calculated by YFP using the mill economic maximation model without any limit on hours of operation and were provided to Region 10 on July 23, 2015. Material is assumed to be Ponderosa Pine.

Bin	Mill	Material		bdt/yr
				Pine
Cyclone C-1	SLM	SH	Shavings	5,731
Cyclone C-2	LLM	SD	Sanderdust	13,178
Cyclone C-3	LLM	GC	Green Chips	30,986
Cyclone C-4	LLM	SH	Shavings	15,344

NON-FUGITIVE EMISSIONS

Emissions Generating Activity	Annual Capacity (bdt/yr)	EF				PTE			
		PM	PM ₁₀	PM _{2.5}	VOC	PM	PM ₁₀	PM _{2.5}	VOC
		(lb/bdt)				(tpy)			
Cyclone C-1	5,731	0.5	0.425	0.25	0.4283	1.43	1.22	0.72	1.23
Cyclone C-2	13,178	0.5	0.425	0.25	0.4283	3.29	2.80	1.65	2.82
Cyclone C-3	30,986	0.5	0.425	0.25	0.4283	7.75	6.58	3.87	6.64
Cyclone C-4	15,344	0.5	0.425	0.25	0.4283	3.84	3.26	1.92	3.29
TOTAL						16.3	13.9	8.2	14.0

EF References and Notes

PM, PM ₁₀ and PM _{2.5}	EPA Region 10 Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country, May 8, 2014. See online at: http://yosemite.epa.gov/R10/AIRPAGE.NSF/Permits/tvop/ . Assume all are medium efficiency. Emissions caused by bin filling below each cyclone is assumed to vent back up through each cyclone.
VOC	NCASI Technical Bulletin No. 723, "Laboratory and Limited Field Measurements of VOC Emissions from Wood Residuals," September 1996. To convert emission factor from units of carbon to units of propane, multiply by propane mass conversation factor of 1.2238. The EF for Ponderosa Pine chip handling will be used for all material handling because ponderosa pine generally emits more VOC than Douglas Fir (the other species tested) and chips generally emit less VOC than sawdust and shavings (the Ponderosa Pine chip EF is higher than the Douglas Fir sawdust and shavings EFs). For ponderosa pine chips, 0.35 (lb carbon)/bdt X 1.2238 = 0.4283 (lb VOC as propane)/bdt. The actual Ponderosa Pine sawdust and shavings emission factors are likely higher than chip-derived EF based upon comparative emissions testing data for Douglas fir.

Appendix A: Potential Emissions Inventory

Non-HAP Potential to Emit

Emission Unit: **Bins**

Description: Bins are used to store byproducts before shipping in trucks. Bin names ending with a "1" are located in the SLM; bin names ending with a "2" are located in the LLM. Bins SH-1, GC-2 and SH-2 are filled via a cyclone; all other bins are filled via a conveyor. All bins unload to trucks.

Control Device: none

Capacity: See table below; values were calculated by YFP using the mill economic maximization model without any limit on hours of operation and were provided to Region 10 on July 23, 2015. Highest value is used for

Mill	Material		bdt/yr			
			Grand Fir	Douglas Fir	Pine	Highest
SLM	HF	hog fuel	25,577	24,264	15521	25,577
SLM	SD	sawdust	11,633	8,957	10890	11,633
SLM	GC	green chips	70,102	52,268	62171	70,102
SLM	DC	dry chips	5,086	4,626	3550	5,086
SLM	SH	shavings	8,226	7,467	5731	8,226
LLM	HF	hog fuel	21,826	30,070	11,131	30,070
LLM	SD	sawdust	6,684	7,987	13,178	13,178
LLM	GC	green chips	39,186	38,033	30,986	39,186
LLM	DC	dry chips	6,674	6,409	4,430	6,674
LLM	SH	shavings	11,653	11,369	15344	15,344

NON-FUGITIVE EMISSIONS

Emissions Generating Activity	Annual Capacity (bdt/yr)	Control Efficiency %	EF			PTE		
			PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
			(lb/bdt)			(tpy)		
Bin HF-1 filling	25,577	0	0.00075	0.00035	0.00005	0.010	0.004	0.001
Bin SD-1 filling	11,633	0	0.00075	0.00035	0.00005	0.010	0.004	0.001
Bin GC-1 filling	70,102	0	0.00075	0.00035	0.00005	0.010	0.004	0.001
Bin DC-1 filling	5,086	0	0.0015	0.0007	0.0001	0.019	0.009	0.001
Bin HF-2 filling	30,070	0	0.00075	0.00035	0.00005	0.010	0.004	0.001
Bin SD-2 filling	13,178	0	0.00075	0.00035	0.00005	0.010	0.004	0.001
Bin DC-2 filling	6,674	0	0.0015	0.0007	0.0001	0.019	0.009	0.001
						0.086	0.040	0.006

FUGITIVE EMISSIONS

Emissions Generating Activity	Annual Capacity (bdt/yr)	Control Efficiency %	EF			PTE		
			PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
			(lb/bdt)			(tpy)		
Truck loading from Bin HF-1	25,577	0	0.00075	0.00035	0.00005	0.010	0.004	0.001
Truck loading from Bin SD-1	11,633	0	0.00075	0.00035	0.00005	0.010	0.004	0.001
Truck loading from Bin GC-1	70,102	0	0.00075	0.00035	0.00005	0.010	0.004	0.001
Truck loading from Bin DC-1	5,086	0	0.0015	0.0007	0.0001	0.019	0.009	0.001
Truck loading from Bin SH-1	8,226	0	0.0015	0.0007	0.0001	0.019	0.009	0.001
Truck loading from Bin HF-2	30,070	0	0.00075	0.00035	0.00005	0.010	0.004	0.001
Truck loading from Bin SD-2	13,178	0	0.00075	0.00035	0.00005	0.010	0.004	0.001
Truck loading from Bin GC-2	39,186	0	0.00075	0.00035	0.00005	0.010	0.004	0.001
Truck loading from Bin DC-2	6,674	0	0.0015	0.0007	0.0001	0.019	0.009	0.001
Truck loading from Bin SH-2	15,344	0	0.0015	0.0007	0.0001	0.019	0.009	0.001
						0.134	0.063	0.009

EF References and Notes

PM, PM ₁₀ and PM _{2.5} EF Basis	EPA Region 10 Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country, May 8, 2014. See online at: http://yosemite.epa.gov/R10/AIRPAGE.NSF/Permits/tvop/ . Emission caused by filling bins that are fed by a cyclone are accounted for with the cyclone emission estimates, not here, because those emission are assumed to vent back up through each cyclone feeding the bin. Emission caused by filling bins using a conveyor belt are accounted for here and assumed to be non-fugitive because they can be readily enclosed and captured. Emission caused by loading trucks from the bins are accounted for here and assumed to be fugitive because it is not as practical to enclose and capture truck loading emissions.
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Appendix A: Potential Emissions Inventory

Non-HAP Potential to Emit

Emission Unit: **MNFA**

Description: Miscellaneous Non-Fugitive Activities. Activities occurring inside a building that generate wood residue and dust that is emitted from the buildings thru various building vents. Sawing is the only activity addressed.

Controls: 80% Assume 80% reduction in dust emitted due to being inside building

Capacity: See the table below; mbf/yr values are from maximum drying capacity assumptions explained on the kiln emission estimating sheet; tons log/yr values are calculated using the following equation and assumptions:

$$\text{tons/yr logs} = \text{mbf/yr lumber} \times (1000 \text{ bf/mbf}) \times (1 \text{ cf}/6.33 \text{ bf lumber}) \times (46 \text{ lb/cf logs}) \times (1 \text{ ton}/2000 \text{ lb})$$

$$\text{SLM} = 88,815 \text{ mbf/yr} = 322,709 \text{ ton/yr logs}$$

$$\text{LLM} = 116,527 \text{ mbf/yr} = 423,400 \text{ ton/yr logs}$$

NON-FUGITIVE EMISSIONS

Emissions Generating Activity	Annual Capacity		EF			PTE		
			PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
			(lb/ton log or lb/mbf lumber)			(tpy)		
SLM Material Sawing (inside building)	322,709	ton/yr logs	0.35	0.175	0.0875	11	6	3
LLM Material Sawing (inside building)	423,400	ton/yr logs	0.35	0.175	0.0875	15	7	4
TOTAL						26	13	7

EF References and Notes:

PM, PM ₁₀ and PM _{2.5} EF Basis:	EPA Region 10 Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country, May 8, 2014. See online at: http://yosemite.epa.gov/R10/AIRPAGE.NSF/Permits/tvop/ .
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Appendix A: Potential Emissions Inventory

Non-HAP Potential to Emit

Emission Unit: **MFA**

Description: Miscellaneous Fugitive Activities. Activities occurring outside a building or storage structure that generate fugitive dust. Sawing, debarking, hogging, material conveyance and wind erosion are addressed.

Control Device: none

Capacity: See the table below; hog-related capacities are from the material handling capacities calculated on the bin emission estimating sheet; acreage estimates are from YFP website documentation about the plant size; logs processing capacities are calculated using the mbf/yr lumber capacities from the kiln emission estimating sheet and the following equation from the referenced document below:

$$\text{Logs (tons/yr)} = \text{mbf/yr lumber} \times (1000 \text{ bf/mbf}) \times (1 \text{ cf}/6.33 \text{ bf lumber}) \times (46 \text{ lb/cf logs}) \times (1 \text{ ton}/2000 \text{ lb})$$

$$\text{SLM} = 88,815 \text{ mbf/yr} = 322,709 \text{ ton/yr logs}$$

$$\text{LLM} = 116,527 \text{ mbf/yr} = 423,400 \text{ ton/yr logs}$$

FUGITIVE EMISSIONS

Emissions Generating Activity	Annual Capacity	EF			PTE		
		PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
		(lb/bdt, lb/tons log; lb/acre)			(tpy)		
SLM Log cross cut saws	322,709 ton/yr logs	0.035	0.0175	0.00875	5.647	2.824	1.412
SLM Log debarking	322,709 ton/yr logs	0.024	0.012	0.006	3.873	1.936	0.968
SLM Conveyance to hog	25,577 bdt/yr	0.00075	0.00035	0.00005	0.010	0.004	0.001
SLM Hog	25,577 bdt/yr	0.024	0.012	0.006	0.307	0.153	0.077
SLM Hog conveyance	25,577 bdt/yr	0.00075	0.00035	0.00005	0.010	0.004	0.001
SLM Log Yards No.'s 1, 2 and 3 (Wind Erosion)	90.0 acre-yr	0.38	0.19	0.095	0.017	0.009	0.004
LLM Log cross cut saws	423,400 ton/yr logs	0.035	0.0175	0.00875	7.409	3.705	1.852
LLM Log debarking	423,400 ton/yr logs	0.024	0.012	0.006	5.081	2.540	1.270
LLM Conveyance to hog	30,070 bdt/yr	0.00075	0.00035	0.00005	0.011	0.005	0.001
LLM Hog	30,070 bdt/yr	0.024	0.012	0.006	0.361	0.180	0.090
LLM Hog conveyance	30,070 bdt/yr	0.00075	0.00035	0.00005	0.011	0.005	0.001
LLM Log Yards No.'s 1, 2 and 3 (Wind Erosion)	90.0 acre-yr	0.38	0.19	0.095	0.017	0.009	0.004
TOTAL					22.8	11.4	5.7

EF References and Notes:

PM, PM ₁₀ and PM _{2.5} EF Basis:	EPA Region 10 Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country, May 8, 2014. See online at: http://yosemite.epa.gov/R10/AIRPAGE.NSF/Permits/tvop/ . Assume hog emissions are similar to debarking.
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Appendix A: Potential Emissions Inventory

Non-HAP Potential to Emit

Emission Unit: **PT**

Description: Plant Traffic. Fugitive emissions including employee vehicles, forklifts, log trucks and byproduct trucks on paved and unpaved roads

Controls: Watering, but is not included because it is not required

FUGITIVE EMISSIONS

Vehicle Type (# of vehicles)	Location	Loaded Weight (lbs)	Empty Weight (lbs)	Average Weight (lbs)	Paved Road Emission Factors (lb/VMT)			Unpaved Road Emission Factors (lb/VMT)			Travel % Paved	Travel % Unpaved	VMT per Year (miles)	VMT Paved Roads (miles)	VMT Unpaved Roads (miles)	Emissions (tpy)		
					PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}						PM	PM ₁₀	PM _{2.5}
					Employee Vehicles	Plantwide	5000	5000	5000	0.173						0.035	0.008	3.517
Product Loadout	Plantwide	60000	60000	60000	2.183	0.4366	0.107	10.759	3.067	0.307	100	0.000	3,709	3,709	0	4.0	0.8	0.2
H-360 HD forklift	SM-3	41200	20600	30900	1.109	0.222	0.054	7.981	2.275	0.228	100	0.000	6,480	6,480	0	3.6	0.7	0.2
H-360 HD forklift	PM-3	41200	20600	30900	1.109	0.222	0.054	7.981	2.275	0.228	100	0.000	4,320	4,320	0	2.4	0.5	0.1
H-360 HD forklift	PM/KILN-3	41200	20600	30900	1.109	0.222	0.054	7.981	2.275	0.228	100	0.000	5,760	5,760	0	3.2	0.6	0.2
H-360 HD forklift	KILN	41200	20600	30900	1.109	0.222	0.054	7.981	2.275	0.228	100	0.000	5,760	5,760	0	3.2	0.6	0.2
H-280 forklift	SM-2	34800	17400	26100	0.934	0.187	0.046	7.397	2.109	0.211	100	0.000	3,240	3,240	0	1.5	0.3	0.1
H-280 forklift	PM-2	34800	17400	26100	0.934	0.187	0.046	7.397	2.109	0.211	100	0.000	3,240	3,240	0	1.5	0.3	0.1
H-190 HD forklift (x 3)	SHIPPING-3	26300	13150	19725	0.702	0.140	0.034	6.522	1.859	0.186	100	0.000	12,960	12,960	0	4.5	0.9	0.2
H-190 HD forklift (x 2)	PM-3	26300	13150	19725	0.702	0.140	0.034	6.522	1.859	0.186	100	0.000	7,920	7,920	0	2.8	0.6	0.1
H-190 forklift	PM-2	26300	13150	19725	0.702	0.140	0.034	6.522	1.859	0.186	100	0.000	2,430	2,430	0	0.9	0.2	0.0
H-190 forklift	PM-SHIP-2	26300	13150	19725	0.702	0.140	0.034	6.522	1.859	0.186	100	0.000	2,700	2,700	0	0.9	0.2	0.0
H-190 forklift	SHIPPING-2	26300	13150	19725	0.702	0.140	0.034	6.522	1.859	0.186	100	0	2,970	2,970	0	1.0	0.2	0.1
H-155 Forklift	SM-2	13500	6750	10125	0.356	0.071	0.017	4.831	1.377	0.138	100	0	360	360	0	0.1	0.0	0.0
LULL forklift	SM-2	9000	4500	6750	0.235	0.047	0.012	4.025	1.147	0.115	90	10	180	162	18	0.1	0.0	0.0
TRACTOR forklift	SM-2	7500	3750	5625	0.195	0.039	0.010	3.708	1.057	0.106	90	10	270	243	27	0.1	0.0	0.0
CAT 950 (x 3)	MERCH	42520	21260	31890	1.146	0.229	0.056	8.095	2.308	0.231	99	1	14,580	14,434	86	8.6	1.8	0.4
JD-200	MERCH	50000	25000	37500	1.352	0.270	0.066	8.708	2.482	0.248	99	1	810	802	8	0.6	0.1	0.0
LETRO (x 2)	P-2	90000	45000	67500	2.462	0.492	0.121	11.344	3.234	0.323	1	99	4,860	49	4,811	27.4	7.8	0.8
LETRO (x 2)	P-3	140000	70000	105000	3.863	0.773	0.190	13.840	3.945	0.394	99	1	16,200	16,038	162	32.1	6.5	1.6
JD-744 (x 2)	P-2	51920	25960	38940	1.405	0.281	0.069	8.857	2.525	0.252	1	99	4,050	41	4,010	17.8	5.1	0.5
CAT 966	P-2	51980	25990	38985	1.406	0.281	0.069	8.861	2.526	0.253	1	99	2,025	20	2,005	8.9	2.5	0.3
CAT 966 (x 2)	P-3	52720	26360	39540	1.427	0.285	0.070	8.918	2.542	0.254	99	1	9,450	9,356	95	7.1	1.5	0.3
HITACHI (x 2)	P-2	81000	40500	60750	2.211	0.442	0.109	10.819	3.084	0.308	99	1	1,350	1,337	14	1.6	0.3	0.1
MADILL (x 2)	P-3	99800	49900	74850	2.735	0.547	0.134	11.885	3.388	0.339	99	1	1,350	1,337	14	1.9	0.4	0.1
WATER 1	P-2&3	49860	24930	37395	1.348	0.270	0.066	8.697	2.479	0.248	50	50	3,900	1,950	1,950	9.8	2.7	0.3
WATER 2	P-2&3	52180	26090	39135	1.412	0.282	0.069	8.877	2.530	0.253	50	50	3,900	1,950	1,950	10.0	2.7	0.3
WATER 3	P-2&3	51920	25960	38940	1.405	0.281	0.069	8.857	2.525	0.252	50	50	3,900	1,950	1,950	10.0	2.7	0.3
TOTAL															165.9	40.1	6.5	

EF References and Notes:

Emission, tpy =	EF (lb/VMT) x VMT x (ton/2000 lb) for both paved and unpaved roads			
VMT =	vehicle miles traveled. Values are from YFP's 2010 Non-Title V application. VMT are multiplied by the number vehicles of the same type in the same location.			
Paved Road EF =	$k \times (sL)^{0.91} \times (W)^{1.02}$, lb/VMT, from AP-42 (01/11), Chapter 13.2.1, Equation 1			
sL =	7.4 road surface silt loading in units of grams per square meter. Value is taken from application.			
W =	average weight of vehicles traveling the road in units of tons. Vehicle weights are from application.			
k =	particle size multiplier for particle size range in units of lb/VMT. See AP-42 Table 13.2.1-1 as follows:			
	PM:	0.011	lb/VMT	
	PM ₁₀ :	0.0022	lb/VMT	
	PM _{2.5} :	0.0005	lb/VMT	
Unpaved Road EF =	$k (s/12)^3 \times (W/3)^3$, lb/VMT, from AP-42 (11/06) Chapter 13.2.2, Equation 1a.			
s =	8.4 surface material silt content in units of percent (%). Value is from application.			
W =	average weight of vehicles traveling the road in units of tons. Vehicle weights are from application.			
k, a and b =	empirical constants. See AP-42 Table 13.2.2-2 as follows:			
	k (lb/VMT)	a	b	
	PM	4.9	0.7	0.45
	PM ₁₀	1.5	0.9	0.45
	PM _{2.5}	0.15	0.9	0.45

Appendix A: Potential Emissions Inventory

HAP Potential to Emit

Emission Unit: **Boilers #1-4**

Description: Two Superior brand boilers are located in the SLM, and two Superior brand are located in the LLM.

SLM: Model # 6-5-3000, Serial # 13796, 24.92 mmBTU/hr; and Model # 7-4-2500, Serial # 14159, 24.92 mmBTU/hr

LLM: both Model # 6-5-5000, Serial # 14921 and 14922, both 29.1 mmBtu/hr

Maximum Steam Production: SLM: 20,700 and 21,562 lb/hr = 42,262 pph total

LLM: 23,252 lb/hr each = 46,504 pph total

LLM boiler steam flow estimated based on original design heat-input-to-steam-output ratio = 29.1 mmBtu x (33,000 pph / 41.3 mmBtu) = 23,252 pph steam

Control Device: None

Fuel: Propane (assume SLM boilers are converted to propane from oil)

Startup: SLM: 1998 and 2001; and LLM: 2002

Design Maximum Heat Input Capacity: 108.04 MMBtu/hr (total for all four)

1.18 mgal/hr (assuming 91.5 mmBtu/mgal)

Operation: 8,760 hours per year

NON-FUGITIVE EMISSIONS

Hazardous Air Pollutants	EF (lb/mmscf)	PTE (tpy)
Trace Metal Compounds		
Arsenic Compounds	2.00E-04	9.28E-05
Beryllium Compounds	1.20E-05	5.57E-06
Cadmium Compounds	1.10E-03	5.10E-04
Chromium Compounds (including hexavalent)	1.40E-03	6.50E-04
Cobalt Compounds	8.40E-05	3.90E-05
Manganese Compounds	3.80E-04	1.76E-04
Mercury Compounds	2.60E-04	1.21E-04
Nickel Compounds	2.10E-03	9.74E-04
Selenium Compounds	2.40E-05	1.11E-05
Organic Compounds		
Acenaphthene*	1.80E-06	8.35E-07
Acenaphthylene*	1.80E-06	8.35E-07
Anthracene*	2.60E-06	1.21E-06
Benz(a)anthracene*	1.80E-06	8.35E-07
Benzene	2.10E-03	9.74E-04
Benzo(a)pyrene*	1.20E-06	5.57E-07
Benzo(b)fluoranthene*	1.80E-06	8.35E-07
Benzo(g,h,i)perylene*	1.20E-06	5.57E-07
Benzo(k)fluoranthene*	1.80E-06	8.35E-07
Chrysene*	1.80E-06	8.35E-07
Dibenzo(a,h)anthracene*	1.20E-06	5.57E-07
Dichlorobenzene	1.20E-03	5.57E-04
7,12-Dimethylbenz(a)anthracene*	1.60E-05	7.42E-06
Fluoranthene*	3.00E-06	1.39E-06
Fluorene*	2.80E-06	1.30E-06
Formaldehyde	7.50E-02	3.48E-02
Hexane	1.80E+00	8.35E-01
Indeno(1,2,3-cd)pyrene*	1.80E-06	8.35E-07
2-Methylnaphthalene*	2.40E-05	1.11E-05
3-Methylchloroanthracene*	1.80E-06	8.35E-07
Naphthalene*	6.10E-04	2.83E-04
Phenanathrene*	1.70E-05	7.89E-06
Polycyclic Organic Matter (POM)	6.98E-04	3.24E-04
Pyrene*	5.00E-06	2.32E-06
Toluene	3.40E-03	1.58E-03
TOTAL**	1.89E+00	8.76E-01

* These HAPs are subject to the 10 tpy major source threshold individually, but are also considered POM that are then, in aggregate, also subject to the 10 tpy major source threshold.

** Because all of the emitted pollutants that are POMs have already been accounted for individually, the POM EF and calculated PTE has not been included in the totals to avoid double-counting.

EF References and Notes:

HAP	AP-42 Tables 1.4-3 and 1.4-4. Assumes HAP EFs for natural gas combustion conservatively represent HAP emissions from propane combustion, because there are no EF available for propane combustion. Because the boiler is not subject to any limits in NESHAP DDDDD, PTE has been based on AP-42 emission factors for all HAPs. Included in each PTE calculation is the conversion of the natural gas EF in lb/mmscf to lb/mgal propane (as explained in AP-42, Table 1.5-1, Footnote a) by multiplying by the heat content of propane (91.5 mmBtu/mgal) and dividing by the heat content of methane (1020 mmBtu/1 mmscf).
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Appendix A: Potential Emissions Inventory

HAP Potential to Emit

Emission Unit: **Kilns #1-11**

Description: Lumber drying in both the small log mill and large log mill

Control Device: None

Work Practice Requirements: None

Fuel: None - indirect steam provided by propane fired boilers

Predominant Species Dried: Douglas Fir, Ponderosa Pine, Grand (White) Fir

Installed: SLM: #1-3 1997, #4 2001; LLM: #5-9 2002, #10-11 2005

Annual Capacity: See table below; values are in mbf/yr and represent the maximum amount that can be dried if only that species is dried all year. Values were calculated by YFP using the mill economic maximization model without any limit on hours of operation and were provided to Region 10 on July 23, 2015. The LLM is constrained by steam generation capacity; the SLM is constrained by kiln

Mill, Kilns	Grand Fir	Douglas Fir	Pine
SLM, #1-4	88,815	80,618	61,879
LLM, #5-11	116,527	116,393	77,184
Total	205,342	197,011	139,063

NON-FUGITIVE EMISSIONS

Hazardous Air Pollutants	Grand Fir		Douglas Fir		Pine	
	EF (lb/mbf)	PTE (tpy)	EF (lb/mbf)	PTE (tpy)	EF (lb/mbf)	PTE (tpy)
Acetaldehyde	0.0550	5.6	0.0682	6.7	0.0420	2.9
Acrolein	0.0026	0.3	0.0011	0.1	0.0045	0.3
Formaldehyde	0.0163	1.7	0.0043	0.4	0.0092	0.6
Methanol	0.4200	43.1	0.1170	11.5	0.1440	10.0
Propionaldehyde	0.0018	0.2	0.0007	0.1	0.0032	0.2
TOTAL		45.0		12.0		10.9

Highest total HAPs from one species: 45 tpy, when drying Grand Fir at temperatures above 200

Highest HAP from any species: 43 tpy, when drying Grand Fir at temperatures above 200 (methanol)

EF References and Notes:

HAP	EPA Region 10 HAP and VOC Emission Factors for Lumber Drying, December 2012. See online at: http://yosemite.epa.gov/R10/AIRPAGE.NSF/Permits/tvop/ . Because the facility has the ability to dry resinous and non-resinous softwood species (except pine) at temperatures above 200°F, the Grand Fir total HAPs and methanol represent the highest potential emissions. Grand Fir is assumed to be the same as White Fir; pine is assumed to be Western White Pine.
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Appendix A: Potential Emissions Inventory

HAP Potential to Emit

Emission Unit: **Cyclones**

Description: Cyclone C-1 is in the SLM; cyclones C-2, C-3 and C-4 are in the LLM. Cyclone C-1 separates shavings from a pneumatic handling system into Bin SH-1. Cyclone C-2 separates sawdust from a pneumatic handling system onto the hog fuel conveyor belt. Cyclone C-3 separates green chips from a pneumatic handling system into Bin GC-2. Cyclone C-4 separates shavings from a pneumatic handling system into Bin SH-2.

Control Device: none

Capacity: See table below; values were calculated by YFP using the mill economic maximization model without any limit on hours of operation and were provided to Region 10 on July 23, 2015. Assume all the material is Ponderosa Pine.

Bin	Mill	Material		bdt/yr Pine
Cyclone C-1	SLM	SH	Shavings	5,731
Cyclone C-2	LLM	SD	Sanderdust	13,178
Cyclone C-3	LLM	GC	Green Chips	30,986
Cyclone C-4	LLM	SH	Shavings	15,344

NON-FUGITIVE EMISSIONS

Emissions Generating Activity	Annual Capacity (bdt/yr)	EF	PTE
		Methanol (lb/bdt)	Methanol (tpy)
Cyclone C-1	5,731	0.0016	0.00
Cyclone C-2	13,178	0.0016	0.011
Cyclone C-3	30,986	0.0016	0.02
Cyclone C-4	15,344	0.0016	0.01

0.05

EF References and Notes

HAP (Methanol)	NCASI Technical Bulletin No. 773 entitled, "Volatile Organic Compound Emissions from Wood Products Manufacturing Facilities, Part VI - Hardboard and Fiberboard," January 1999. See Table B46 of the document for emission unit 072-IIC1. Emission factor is representative of emissions exhausted from a cyclone receiving green hardwood chips via pneumatic system. Higher of two values employed in this PTE inventory. Of the 19 HAP's sampled for, only methanol was detected. Assume softwood green chip methanol EF is approximately equal to that for hardwood, and assume green chip EF is approximately equal to that for shavings and sanderdust. The actual sanderdust and shavings EF's are likely higher than chip-derived EF based upon comparative emissions testing data for douglas fir presented in NCASI Technical Bulletin No. 723 entitled, "Laboratory and Limited Field Measurements of VOC Emissions from Wood Residuals," September 1996."
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Appendix A: Potential Emissions Inventory

Abbreviations used in Appendic A of the Statement of Basis

bd	bone dry tons	N ₂ O	nitrous oxide
bf	board feet of lumber	NO _x	nitrogen oxides
Btu	British thermal units	PM	particulate matter
cf	cubic feet	PM ₁₀	particulate matter less than 10 microns in aerodynamic diameter
CH ₄	methane	PM _{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
CO	carbon monoxide	pph	pounds per hour
CO ₂	carbon dioxide	ppmdv	parts per million on a dry volume basis
DC	dry chips	ppmw	parts per million on a weight basis
dscf	dry standard cubic feet	psi	pounds per square inch
EF	emission factor	S	sulfur
EU	emission unit	scf	standard cubic feet
°F	degrees Fahrenheit	SD	sander dust
gal	gallon(s)	SH	shavings
GC	green chips	SLM	small log mill
GHG	greenhouse gases	SO ₂	sulfur dioxide
gr	grains	tpy	tons per year
HAP	hazardous air pollutant(s)	VMT	vehicle miles traveled
HF	hog fuel	VOC	volatile organic compounds
hpy	hours per year	WPP1	Wood Products Protocol 1
hr	hour		
kPa	kilopascals		
lb	pound (lbs = pounds)		
lbm	pound-mole		
LLM	large log mill		
m	thousand		
mm	million		