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Technical Support Document

For Air Operating
Permit # 21AOP1491

Sierra Pacific
Industries - Aberdeen
Lumber Mill

AOP – Renewal
21AOP1491
April 27, 2022

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1.0 DISCLAIMER

This Technical Support Document generally describes and contains background information on the lumber mill facility located at 301 Hagara Street in Aberdeen which is herein referred to as the SPI Lumber Facility. The SPI Lumber Facility is currently owned and operated by Sierra Pacific Industries. All information contained in this Technical Support Document is for purposes of background information regarding air quality only and is not directly enforceable. Enforceable air quality related requirements including emission limits and monitoring, recordkeeping and reporting requirements are contained in the associated Air Operating Permit (AOP) for the SPI Lumber Facility, permit # 21AOP1491, which was issued by Olympic Region Clean Air Agency (ORCAA) on April 27, 2022.

2.0 PERMIT ADMINISTRATION

2.1 General

The SPI Lumber Facility is a lumber mill located on a 46-acre riverfront property in Junction City, Grays Harbor County, approximately 1.5 miles east of downtown Aberdeen and less than a mile across the Chehalis River from South Aberdeen and Cosmopolis. The facility is adjacent to the Sierra Pacific Industries Cogeneration Plan permitted under 12AOP873.

The lumber mill produces both kiln-dried and green lumber, as well as wood residual products such as chips and hog fuel, from western hemlock and Douglas fir. The SPI Lumber Facility currently includes five significant emissions units: a natural gas fired package boiler, a set of double track lumber dry kilns, a planer mill and associated dust collection system, an anti-mold spray system, and a diesel engine powering the emergency fire pump. The SPI Lumber Facility is a major source of volatile organic compounds (VOC) and the hazardous air pollutants (HAP) methanol and acetaldehyde. It is therefore subject to Title V of the federal Clean Air Act and required to operate under an AOP.

Table 1: Administrative Information and Contact Information

| | |
|--------------------------------------|---|
| Company Name | Sierra Pacific Industries |
| Facility/Source Name | Sierra Pacific Industries - Aberdeen Lumber Mill |
| Owner | Sierra Pacific Industries |
| AOP Permit No. | 21AOP1491 |
| Mailing Address | Sierra Pacific Industries - Aberdeen Lumber Mill 301 Hagara Street Aberdeen, WA 98520 |
| Site Address | Same as mailing address |
| Facility/Plant/Environmental Manager | Jeremy Higgins Environmental Manager |
| Responsible Official | Ron Burch |

| | |
|---|--|
| | Division Manager |
| Unified Business Identification # | 601766172 |
| Standard Industrial Classification (SIC) Code | 2421 |
| Attainment Area Status | Attainment/Unclassified |
| Permitting Authority | Olympic Region Clean Air Agency |
| Permit Engineer | Aaron Manley - Engineer II (360) 539-7610 ext. 114 |
| Assigned Member of Compliance | Robert Moody – Compliance Manager (360) 539-7610 ext. 106 |

2.2 Permittee

The term “Permittee” refers to both the owner and operator of the facility. Both the owner and the operator are responsible for assuring compliance with the terms and conditions in the AOP. The current operator of the SPI Lumber Facility is identified as Sierra Pacific Industries - Aberdeen Lumber Mill (SPI Lumber). The AOP and its requirements apply to operations at the SPI Lumber Facility regardless of ownership changes. Therefore, a change in ownership transfers responsibility for complying with the AOP immediately to the new owner and operator.

2.3 Responsible Official

AOP regulations under Chapter 173-401 WAC require a “Responsible Official” certify the truth and accuracy of all compliance related submittals and reports required by the AOP based on their belief formed after reasonable inquiry. The Responsible Official must have the means and authority to initiate maintenance, testing, operational changes and purchase of equipment to maintain compliance with the AOP.

AOP compliance-related submittals covers practically every report, submittal and certification required by the AOP such as deviation reports, malfunction reports, periodic monitoring reports, test reports, quarterly reports, and annual compliance certifications. The AOP for the SPI Lumber Facility does allow “batch-wise” certification of routine compliance reports under condition G5, which states, “Provided, however, where a report is sent more frequently than once every six months, the responsible official’s certification needs only be submitted once every six months, covering all required reporting since the date of the last certification.” The Responsible Official may certify retroactively all reports submitted since the last certification.

According to WAC 173-401-200(29), the “Responsible Official” means one of the following:

- a) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly

authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

- i. The facilities employ more than two hundred fifty persons or have gross annual sales or expenditures exceeding forty-three million in 1992 dollars; or
 - ii. The delegation of authority to such representative is approved in advance by the permitting authority;
- b) For a partnership or sole proprietorship: A general partner or the proprietor, respectively;
- c) For a municipality, state, federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a regional administrator of EPA); or
- d) For affected sources:
- i. The designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the FCAA or the regulations promulgated thereunder and in effect on April 7, 1993 are concerned; and
 - ii. The designated representative for any other purposes under 40 C.F.R. Part 70.

The designated Responsible Official for the SPI Lumber Facility, Ron Burch, is identified as the Division Manager for the Facility. This designation meets the requirements for Responsible Officials found in WAC 173-401-200(29), provided that the Division Manager is a duly authorized by a president, secretary, treasurer, or vice president of the corporation who is in charge of a principal business functions.

2.4 Origins and Authorities for AOP Conditions

Per the Washington Air Operating Permit Program under WAC 173-401-600, the regulatory origin and authority for each condition must be stated in an AOP. For SPI Lumber’s AOP, the origin and authority are stated at the end of each permit condition. The “Origin” cites the local, state, federal regulation, or New Source Review permit where the applicable requirement came from. The “Authority” cites the specific section in Chapter 173-401 WAC providing authority to include the requirement in the AOP. Table 2 below lists the specific authorities used by ORCAA for AOPs.

Table 2: Legal Authorities for AOP Conditions

| Category of AOP Condition | Origin | Authority |
|--|--|-----------------------|
| Federal Emissions Limits and Standards | cite the NOC condition or performance standard | WAC 173-401-600(1)(a) |
| State Emissions Limits and Standards | | WAC 173-401-600(1)(b) |

| | | |
|---|---|-----------------------|
| NSR Permit Conditions | | WAC 173-401-600(1)(c) |
| Applicable Monitoring <i>When monitoring is required by an applicable requirement</i> | cite the NOC condition or performance standard | WAC 173-401-615(1)(a) |
| Gap-filling Monitoring <i>When monitoring is not specified by an applicable requirement</i> | “N/A – gap-filling”, Cite federal PS or QA procedure if you use as a surrogate | WAC 173-401-615(1)(b) |
| Additional Monitoring Equipment Requirements <i>When required monitoring references a federal performance specification and QA procedure</i> | Add the underlying section that requires the PS or QA procedure such as 40 CFR § 60.13(a) | WAC 173-401-615(1)(c) |
| Sufficiency Monitoring <i>When monitoring is required by an applicable requirement, but it is not sufficient to assure compliance</i> | “Provisions added to augment” cite the NOC condition or performance standard requiring the monitoring | WAC 173-401-630(1) |
| Recordkeeping (including gap-filling) | NOC condition or state, federal or local regulation requiring the record is cited | WAC 173-401-615(2) |
| All Reporting | NOC condition or state, federal or local regulation requiring the reporting is cited | WAC 173-401-615(3) |

2.5 AOP Enforcement

Terms and conditions in the AOP are enforceable by ORCAA, Washington State, and, except for state or local only designated requirements, the U.S. EPA. Each condition in the AOP cites both the regulatory origin and authority of the condition. Any disputes regarding the exact language of an applicable requirement listed in the AOP should be settled by consulting the regulations cited as the regulatory origins for the condition.

2.6 Annual Fees

ORCAA calculates annual fees for Title V sources (AOP fees) using a formula that includes a facility fee, a fee based on the number of emission units, and a fee based on the actual amount of annual emissions in tons for the previous calendar year. The intent of this formula is to base annual Title V fees assessed each facility to its complexity and ORCAA’s cost to administer the Title V program. The formula used to calculate AOP fees is found in ORCAA Rule 3.2.

For fee assessment purposes, the SPI Lumber Facility is recognized as having five emissions units that add to the complexity of the Facility: a natural gas fired Babcock and Wilcox boiler rated at 40 MMBtu/hr, eight steam-heated double track lumber drying kilns, a planer mill

pneumatic dust collection system, a spray application system for wood brighteners and fungicides, and a diesel engine powering an emergency fire pump.

2.7 Permit Renewals

The AOP renewal for the SPI Lumber Facility is issued with a fixed term of five years. Unless the Permittee submits a complete permit renewal application no later than six months before the expiration date, the AOP will expire. If a complete application is received in a timely manner, the AOP will remain in effect until a renewal AOP is issued. The same procedural requirements that apply to issuing an initial AOP apply to permit renewals, including public participation and affected state and EPA review. If ORCAA denies an AOP renewal application, the procedures for permit revocation apply. A final determination to deny an AOP renewal application can be contested by filing an appeal with the Pollution Control Hearings Board and serving a copy upon ORCAA within 30 days of receipt of the notice of the final determination to deny.

2.8 Permit Revocation

ORCAA may revoke the AOP only upon request of the permittee or for cause. For all revocations, ORCAA is required to provide at least thirty days written notice to the holder of the AOP prior to taking final action to revoke the permit or deny a permit renewal application. Such notice shall include an explanation of the basis for the proposed action and afford the permittee/applicant an opportunity to meet prior to ORCAA's final decision. ORCAA may issue conditional revocations with a future effective date. A preliminary determination to revoke an AOP can be contested by filing an appeal with the Pollution Control Hearings Board and serving a copy upon ORCAA within 30 days of receiving notice of the intended action.

2.9 Reopening for Cause

ORCAA will reopen and revise the AOP if any of the following occurs:

1. Additional requirements become applicable and the remaining permit term is 3 years or longer.
2. Additional requirements become applicable under the acid rain program.
3. ORCAA or the EPA determines that the AOP contains a material mistake or inaccurate information was used to set any of the terms or conditions of the permit.
4. ORCAA or the EPA determines that the AOP must be revised to assure compliance with any applicable requirement.

ORCAA will provide the Permittee at least 30 days written notice before reopening an AOP for cause, unless an emergency requires a shorter time period. The same procedural requirements that apply to issuing an initial AOP apply to reopening and reissuing an AOP, including public

participation and affected state and EPA review, except that only those parts of the AOP modified or revised are subject to public and affected states review.

2.10 Administrative Permit Amendments

An administrative permit amendment is a permit revision to the AOP that:

1. Corrects typographical errors;
2. Identifies a name change, contact information, or similar administrative change;
3. Requires more frequent monitoring or record keeping;
4. Allows for a change in ownership or control; or
5. Incorporates conditions from a Notice of Construction (NOC), provided the NOC approval process substantially meets the same requirements as an AOP modification and no gap filling is required to verify compliance.

The Permittee may request an administrative amendment, which ORCAA will either incorporate into the permit or deny within 60 days. ORCAA will then submit the revised permit to EPA.

2.11 Changes not Requiring Permit Revisions

The Permittee may make a change at a facility subject to an AOP without a permit revision if all of the following conditions are met:

1. The proposed changes are not Title 1 modifications;
2. The proposed changes do not result in an increase in emissions, either a rate or a total, beyond what is allowed by the permit;
3. The proposed changes do not alter permit terms required to enforce limitation on emissions from emission units covered by the permit; and
4. The permittee provides ORCAA and EPA written notification of the proposed changes at least 7 days prior to making the changes, unless an emergency requires swifter action.

A Title 1 modification is defined as any modification subject to a Part 111 standard (NSPS) or a Part 112 standard (NESHAP) or is subject to preconstruction review under the PSD program or in a nonattainment area.

2.12 Minor Permit Modifications

A change that does require a permit revision may be classified as a minor permit modification if it meets the following conditions:

1. No applicable requirements are violated;
2. There are no significant changes to monitoring, reporting, or record keeping requirements;

3. There are no changes to case-by-case determinations regarding an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. The changes do not establish or change a permit term or condition assumed by the source for the purpose of avoiding an applicable requirement; and
5. No Title 1 modifications are proposed.

A Title 1 modification means any modification subject to a Part 111 standard (NSPS) or a Part 112 standard (NESHAP) or is subject to preconstruction review under the PSD program or in a nonattainment area.

Requests for minor permit modifications must be made on official forms supplied by ORCAA and certified by a responsible official. Once ORCAA declares the application complete, it is ORCAA's responsibility to notify the EPA administrator and affected states and post notice on the Permit Register, which initiates a 21-day comment period. Within 90 days of receiving an application for a minor permit modification or within 15 days after the end of EPA's 45-day review period, whichever comes last, ORCAA shall either:

1. Issue the modification as proposed;
2. Deny the proposed modification;
3. Determine that the proposed modification should be resubmitted as a major permit modification; or
4. Revise the draft permit modification and transmit to EPA.

The Permittee may make the proposed changes immediately upon requesting the modification (unless a NOC is required). However, the Permittee must continue to comply with the applicable requirements governing the change and the proposed terms and conditions. During this time period, the Permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it.

2.13 Major Permit Modifications

By definition, a change that requires a permit revision and does not qualify as an administrative permit amendment or a minor permit modification is a major permit modification. Every significant change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping permit terms or conditions shall be considered significant. Major permit modifications must meet all the requirements of Chapter 173-401 WAC, including those for applications, public participation, review by affected states, and review by EPA, as they apply to permit issuance and permit renewal. ORCAA shall complete review on the majority of significant permit modifications within 9 months after receipt of a complete application.

3.0 BASIS FOR TITLE V APPLICABILITY

Title V Air Operating Permits apply to “Major Sources” based on their Potential to Emit (PTE) regulated air pollutants. PTE is defined as the maximum possible emissions given physical and regulatory limitations. Table 3 below shows PTE estimates for the SPI Lumber Facility based on current emissions limits and equipment design parameters. Any facility with a PTE at or above the “major source” threshold for any regulated pollutant is required to operate under an AOP issued through an approved Washington State AOP program, according to Title V of the federal Clean Air Act. The SPI Lumber Facility is a major source of VOC and the HAP methanol and acetaldehyde.

Table 3: SPI Lumber Facility Potential to Emit

| Pollutant | Hourly Rate (lbs/hr) | Daily Rate (lbs/day) | Annual (tons/year) |
|-------------------------------------|----------------------|----------------------|--------------------|
| PM (Total Particulate) | 1.37 | 32.9 | 6.0 |
| PM-10 (Total Particulate) (≤ 10µm) | 1.37 | 32.9 | 6.0 |
| PM 2.5 (Fine Particulate) (≤ 2.5µm) | 1.35 | 32.4 | 5.9 |
| VOC as Volatile Organic Compounds | 54.7 | 1312 | 239 |
| SO2 (Sulfur Dioxide) | 0.24 | 5.77 | 1.1 |
| NOX (Nitrogen Oxides) | 2.01 | 48.2 | 8.8 |
| CO (Carbon Monoxide) | 2.00 | 48.0 | 8.8 |
| Acetaldehyde | 3.21 | 77.0 | 14.0 |
| Acrolein | 0.057 | 1.364 | 0.25 |
| Formaldehyde | 0.21 | 5.03 | 0.92 |
| Methanol | 9.29 | 223 | 40.7 |
| Propionaldehyde | 0.0189 | 0.455 | 0.08 |
| Total HAP | 12.8 | 308 | 56.3 |

^aPTE emissions rates calculated by ORCAA according to permit limits and maximum design capacities of equipment.

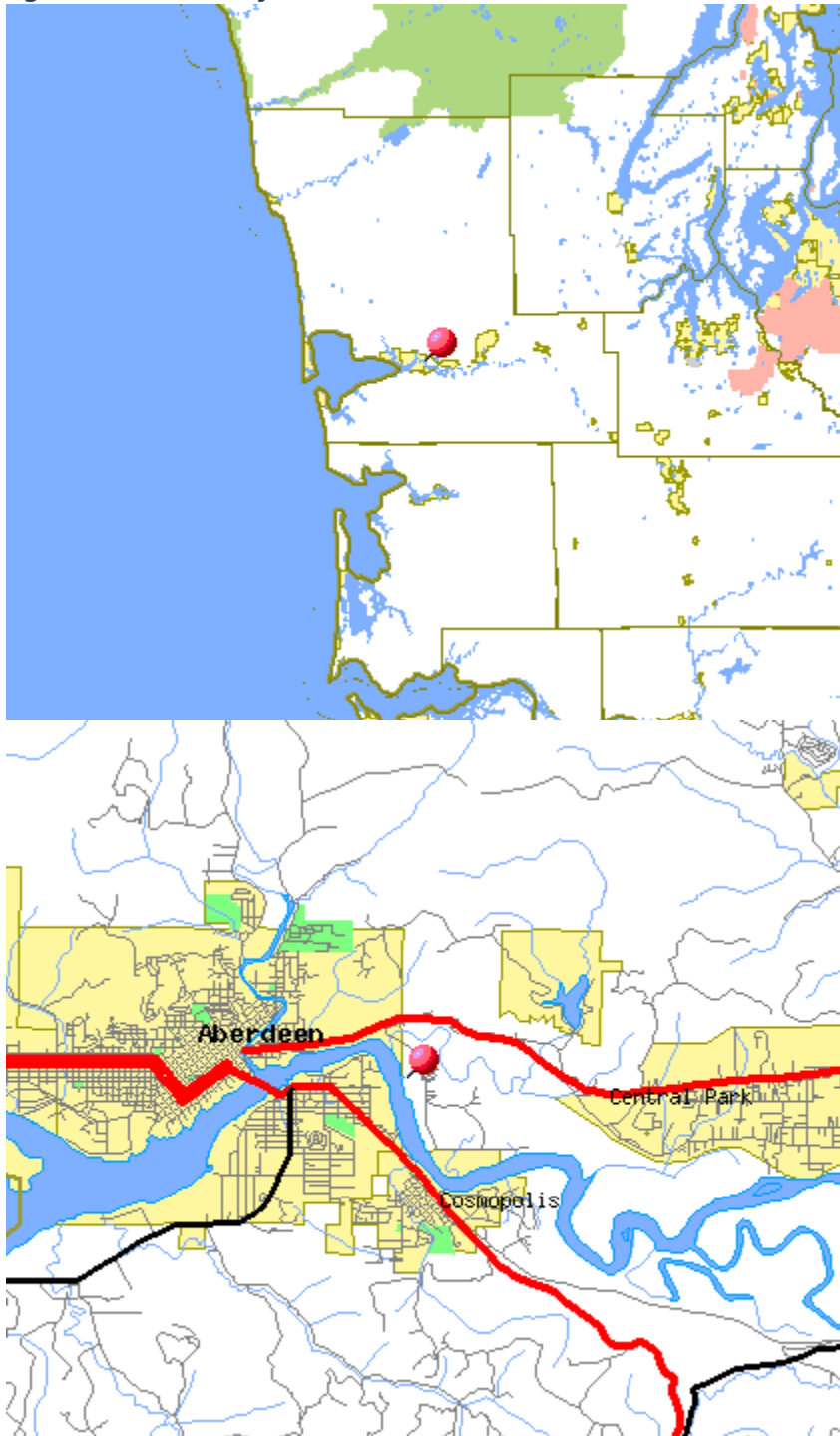
4.0 FACILITY DESCRIPTION

4.1 Facility History and Description

SPI Lumber was established as a new greenfield facility in May 2003. SPI Lumber was granted conditional approval to establish a sawmill with planer, seven lumber dry kilns, and a package boiler under 01NOC192. To date, SPI Lumber has received ten minor new source review (NSR) permits and this 21AOP1491 is the third iteration of the Facility’s Title V Air Operating Permit. Permitting history described below in Section 7.

At SPI Lumber, logs are delivered by truck where they are either fed to a debarker or stacked in organized decks for future use by an electric portal crane assisted by portable loaders. The debarker removes the bark from the logs, sends the logs to the sawmill, and conveys the bark to the hog. The hog reduces and homogenizes the size of the pieces of bark which are then sent to the fuel house for consumption in the cogeneration plant located in the southeastern portion of the property. The cogeneration plant, including the fuel house and cooling towers are regulated under their own permit (previously 04AOP358 and currently 12AOP873). In the sawmill, logs are cut to appropriate lengths and sawed into rough dimensional lumber. Log pieces that are too short or otherwise unmarketable are chipped. Trucks or barges periodically remove chips and deliver them to off-site customers. Sawdust generated in the sawmill is collected and carried by covered conveyors to the fuel house. Most of the dimensional lumber from the sawmill is delivered by forklift to the eight double-track lumber dry kilns to be dried. The lumber dry kilns can be heated by steam from the natural gas fired package boiler or from a separately permitted waste wood fired cogeneration plant. The remainder of the dimensional lumber is not dried and is sold as green lumber. Whether green or dried, dimensional lumber is sent to the planer mill where it is sized and shaped for sale. Shavings and sawdust are collected from the planer and trim saw and controlled by a high efficiency cyclone followed by a reverse air baghouse. Wood residuals collected from the planer mill are sent to the fuel house. Following the planer, all lumber is treated with water-based coatings to promote brightness and resist mildew, mold, and decay during storage and transit. The spray chamber is located in the planer building and vents through an exhaust stack above the roofline. Coatings applied in the spray chamber are proprietary formulations prepared for SPI Lumber by Kop-Koat of Pittsburgh, PA. None of the coatings contain any hazardous air pollutants. The majority of dimensional lumber delivered for sale is shipped by rail, although some is shipped by truck.

Figure 1. Location of SPI Lumber



(Maps from Tiger Map, U.S. Department of the Census)

4.2 Background Air Quality

Ambient air quality in Aberdeen is generally good. The pollutant of concern in the area is PM_{2.5}. A federal reference method (FRM) PM_{2.5} monitor was installed at Harbor High School in Aberdeen between August 18, 2002 and December 29, 2003. No violations of the daily or annual PM_{2.5} NAAQS were recorded during this time. As a permanent FRM was not installed in Aberdeen, the region is officially considered unclassified with regards to PM_{2.5} attainment status. A nephelometer has been used to monitor PM_{2.5} at Harbor High School in Aberdeen for the past 20 years. Nephelometer based PM_{2.5} was verified by the previously mentioned FRM data during the period when both monitors were collocated in Aberdeen. Including wildfire smoke impacts, the most recent (2018 – 2020) 24-hr PM_{2.5} design value (DV) for Aberdeen is 20.5 µg/m³. If exceptional events (wildfire smoke) are excluded, the Aberdeen DV is 10.5 µg/m³ over the same period. WA Dept. of Ecology has set a statewide ambient air quality goal for all regions' 24-hour design values to stay under 20 µg/m³. Aberdeen's annual average PM_{2.5} (including wildfire smoke impacts) over the last 3 years has been 5.8 (+/- 1.3) µg/m³. This is well below the annual PM_{2.5} NAAQS of 12.0 µg/m³.

4.3 Package Boiler (EU1)

SPI Lumber maintains a Babcock and Wilcox, model 101-88B, natural gas fired boiler with a maximum rated heat input of 40 MMBtu/hr, capable of producing up to 32,000 lb/hr of steam at 300 °F and 50 psi. This boiler is subject to 40 CFR Part 60 Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units and best available control technology (BACT) standards for NO_x and CO. An additional federal standard, 40 CFR Part 63 Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters), applies as well. The federal standards are discussed in more detail in Section 8.

The package boiler's potential to emit criteria pollutants is shown in Table 4.1a. The package boiler's 100-year global warming potential is shown in Table 4.1b. The package boiler is not a significant source of HAPs or TAPs.

Table 4.1a: Package Boiler (EU1) PTE

| Pollutant | EF | EF units | EF source | lb/hr | TPY |
|-------------------|--------|----------|-----------|----------|------|
| NO _x | 0.05 | lb/mmbtu | BACT | 2 | 8.8 |
| CO | 0.05 | lb/mmbtu | BACT | 2 | 8.8 |
| SO ₂ | 0.006 | lb/mmbtu | AP-42 | 0.24 | 1.1 |
| PM ₁₀ | 0.0075 | lb/mmbtu | AP-42 | 0.3 | 1.3 |
| PM _{2.5} | 0.0075 | lb/mmbtu | AP-42 | 0.3 | 1.3 |
| VOC | 5.5 | lb/MMscf | AP-42 | 0.22 | 0.94 |
| HAPs (see below) | - | - | - | 7.40E-02 | 0.32 |

| HAPS | EF | EF units | EF source | lb/hr | lb/yr |
|--------------------------------|----------|----------|-----------|----------|----------|
| 2-Methylnaphthalene | 2.40E-05 | lb/MMscf | AP-42 | 9.41E-07 | 8.24E-03 |
| 3-Methylcholanthrene | 1.80E-06 | lb/MMscf | AP-42 | 7.06E-08 | 6.18E-04 |
| 7,12-Dimethylbenz(a)anthracene | 1.80E-06 | lb/MMscf | AP-42 | 7.06E-08 | 6.18E-04 |
| Acenaphthene | 1.80E-06 | lb/MMscf | AP-42 | 7.06E-08 | 6.18E-04 |
| Acenaphthylene | 1.80E-06 | lb/MMscf | AP-42 | 7.06E-08 | 6.18E-04 |
| Anthracene | 2.40E-06 | lb/MMscf | AP-42 | 9.41E-08 | 8.24E-04 |
| Arsenic | 2.00E-04 | lb/MMscf | AP-42 | 7.84E-06 | 6.87E-02 |
| Benz(a)anthracene | 1.80E-06 | lb/MMscf | AP-42 | 7.06E-08 | 6.18E-04 |
| Benzene | 2.10E-03 | lb/MMscf | AP-42 | 8.24E-05 | 7.21E-01 |
| Benzo(a)pyrene | 1.20E-06 | lb/MMscf | AP-42 | 4.71E-08 | 4.12E-04 |
| Benzo(b)fluoranthene | 1.80E-06 | lb/MMscf | AP-42 | 7.06E-08 | 6.18E-04 |
| Benzo(g,h,i)perylene | 1.20E-06 | lb/MMscf | AP-42 | 4.71E-08 | 4.12E-04 |
| Benzo(k)fluoranthene | 1.80E-06 | lb/MMscf | AP-42 | 7.06E-08 | 6.18E-04 |
| Beryllium | 1.20E-05 | lb/MMscf | AP-42 | 4.71E-07 | 4.12E-03 |
| Cadmium | 1.10E-03 | lb/MMscf | AP-42 | 4.31E-05 | 3.78E-01 |
| Chromium | 1.40E-03 | lb/MMscf | AP-42 | 5.49E-05 | 4.81E-01 |
| Chrysene | 1.80E-06 | lb/MMscf | AP-42 | 7.06E-08 | 6.18E-04 |
| Cobalt | 8.40E-05 | lb/MMscf | AP-42 | 3.29E-06 | 2.89E-02 |
| Dibenzo(a,h)anthracene | 1.20E-06 | lb/MMscf | AP-42 | 4.71E-08 | 4.12E-04 |
| Dichlorobenzene | 1.20E-03 | lb/MMscf | AP-42 | 4.71E-05 | 4.12E-01 |
| Fluoranthene | 3.00E-06 | lb/MMscf | AP-42 | 1.18E-07 | 1.03E-03 |
| Fluorene | 2.80E-06 | lb/MMscf | AP-42 | 1.10E-07 | 9.62E-04 |
| Formaldehyde | 7.50E-02 | lb/MMscf | AP-42 | 2.94E-03 | 2.58E+01 |
| Hexane | 1.80E+00 | lb/MMscf | AP-42 | 7.06E-02 | 6.18E+02 |
| Indeno(1,2,3-cd)pyrene | 1.80E-06 | lb/MMscf | AP-42 | 7.06E-08 | 6.18E-04 |
| Manganese | 3.80E-04 | lb/MMscf | AP-42 | 1.49E-05 | 1.31E-01 |
| Mercury | 2.60E-04 | lb/MMscf | AP-42 | 1.02E-05 | 8.93E-02 |
| Naphthalene | 6.10E-04 | lb/MMscf | AP-42 | 2.39E-05 | 2.10E-01 |
| Nickel | 2.10E-03 | lb/MMscf | AP-42 | 8.24E-05 | 7.21E-01 |
| Phenanthrene | 1.70E-05 | lb/MMscf | AP-42 | 6.67E-07 | 5.84E-03 |
| Pyrene | 5.00E-06 | lb/MMscf | AP-42 | 1.96E-07 | 1.72E-03 |
| Selenium | 2.40E-05 | lb/MMscf | AP-42 | 9.41E-07 | 8.24E-03 |
| Toluene | 3.40E-03 | lb/MMscf | AP-42 | 1.33E-04 | 1.17E+00 |
| TOTAL | | | | 7.40E-02 | 6.49E+02 |

Table 4.1b: Package Boiler (EU1) 100-Year Global Warming Potential

| GHGs | EF | Units | Source | GWP | kg/hr | kg/yr | Metric Tons CO2e/yr |
|------|----------|-------------|---------------------|-----|-------|----------|---------------------|
| CO2 | 53.06 | kgCO2/mmBTU | 40 CFR 98 Table C-1 | 1 | 2122 | 18590000 | 18590 |
| CH4 | 1.00E-03 | kgCH4/mmBTU | 40 CFR 98 Table C-2 | 25 | 0 | 350 | 9 |
| N2O | 1.00E-04 | kgN2O/mmBTU | 40 CFR 98 Table C-2 | 298 | 0 | 35 | 10 |
| | | | | | | | 18610 |

4.4 Lumber Dry Kilns (EU2)

Dimensional lumber hewn from western hemlock and Douglas fir is dried in eight steam heated double track lumber dry kilns. Drying wood can significantly increase its market value because dried lumber is easier to work than green lumber, has greater strength, is less prone to warping, checking, and other forms of deformation, and is more easily coated and painted.

When wood is heated in the kilns, VOCs – primarily terpenes, such as α -pinene and limonene – are released from the wood and emitted through the kiln vents. Some of these VOC compounds condense and form a haze of particulate matter when they reach ambient temperatures. Emissions of overall VOCs and condensable matter do not appear to be significantly affected by drying temperature.

In addition, heating wood to kiln temperatures causes non-destructive pyrolysis to occur, resulting in emissions of acetaldehyde, formaldehyde, methanol, and other HAPs. Formation, and therefore emissions, of these HAPs is strongly influenced by drying temperature. To limit emissions of HAPs, there is a BACT requirement to operate a computerized steam management system that maintains kiln temperatures at a maximum temperature of 200 °F.

Table 4.2 shows the potential to emit VOC, PM, HAPs, and TAPs from drying a maximum of 415 MMbf/yr of softwood lumber per year, which is a voluntary production cap requested by SPI Lumber and is made enforceable through 21NOR1531 Condition 2. Kiln emissions were based on emission factors reflecting a maximum drying temperature of 200 °F and the highest or worst-case emission factors between Douglas Fir and Hemlock. Hourly emission rates were based on the annual emissions divided by 8,760 hours per year, which assumes continuous, normalized operation of the kilns. Where there are separate emission factors for western hemlock and Douglas fir, the factor resulting in higher emissions is used.

Table 4.2: Lumber Dry Kilns (EU2) PTE

| Pollutant | CAS | EF | EF Units | EF source | lb/hr | tpy |
|-------------------------------------|--------|---------|----------|-----------|-------|------|
| PM ₁₀ /PM _{2.5} | - | 0.02 | lb/mbf | ETI | 0.95 | 4.2 |
| VOC | - | 1.149 | lb/mbf | EPA R10 | 54 | 238 |
| HAP | - | - | - | - | 13 | 56.0 |
| Acetaldehyde | 75070 | 0.0677 | lb/mbf | EPA R10 | 3.2 | 14.0 |
| Acrolein | 107028 | 0.0012 | lb/mbf | EPA R10 | 0.057 | 0.25 |
| Formaldehyde | 50000 | 0.00436 | lb/mbf | EPA R10 | 0.21 | 0.90 |

| | | | | | | |
|-----------------|--------|--------|--------|---------|-------|-------|
| Methanol | 67561 | 0.196 | lb/mbf | EPA R10 | 9.3 | 40.7 |
| Propionaldehyde | 123386 | 0.0004 | lb/mbf | EPA R10 | 0.019 | 0.083 |

-Kiln VOC and TAP factors from EPA Region 10 (November 2019) Compilation of VOC and HAP Emissions Factors for Lumber Drying Kilns.

-PM emission factors from a source test conducted by ETI for Sierra Pacific Industries' Burlington facility in 2013.

4.5 Planer Mill Pneumatic Dust Collection System (EU3)

Trimming and planing of dried and green lumber results in generation of particulate matter that is collected by a pneumatic system controlled by dual, parallel high-efficiency cyclones and a reverse air baghouse. Collected particulate is sent to the fuel house through a covered mechanical conveyor system and burned in the cogeneration plant.

The baghouse, produced by MAC Equipment of Kansas City (Model #120NCF494), is fitted with polyester bags cleaned by reverse air. Air flow is induced by a fan produced by Industrial Air Technology Corporation powered by a 300 hp electric motor. SPI Lumber monitors pressure drop across the filters at least once per shift. Pressure drop typically falls between 1.0 and 3.5 inches of water. A pressure drop less than 0.5 inches of water or greater than 5.0 inches of water initiates investigation.

The baghouse has a 99% control efficiency. The PM emission factor (0.03 gr/scf) for exhaust from the planer mill cyclone was taken from Table 10.4.1 (Particulate Emission Factors for Large Diameter Cyclones in Woodworking Waste Collection Systems) on page 10.4-2 of Section 10.4 (Woodworking Waste Collection Operations) of AP-42 Supplement No. 10, dated February 1980, for the type of waste handled "Other." PM10 and PM2.5 fractions were calculated using the emission factor and size fractions from Oregon DEQ for AQ-EF03). For a high-efficiency cyclone PM10 is 95% of total PM ($0.03 \text{ gr/scf} * 0.95 = 0.0285 \text{ gr/scf}$), and PM2.5 is 80% ($0.03 \text{ gr/scf} * 0.80 = 0.024 \text{ gr/scf}$).

Table 4.3: Planer Mill Pneumatic Dust Collection System (EU3) PTE

| Pollutant | CAS | EF | EF Units | EF source | lb/hr | tpy |
|-------------------|-----|----------|----------|------------------------|-------|------|
| PM ₁₀ | - | 0.000285 | gr/dscf | Manufacturer Guarantee | 0.12 | 0.54 |
| PM _{2.5} | - | 0.00024 | gr/dscf | Manufacturer Guarantee | 0.10 | 0.45 |

4.6 Spray Coating System (EU4)

Concentrated coating solutions to promote brightness and resist mildew, mold, and decay during storage and transit are delivered already mixed by Kop-Koat and stored in a drum in the planer mill. A 100-gallon mix tank is used to dilute the solution about 50:1 by volume with water prior to use. According to the SDS from Kop-Koat, the undiluted mix contains 0.01 pounds of VOC per gallon and the formulation is HAP free. If applied to every single board foot of lumber currently permitted, and assuming that 100 percent of the VOC is emitted, spray coating has the potential to emit 0.1 tons of VOC per year.

Two spray bars, each 40 inches long by 37.5 inches wide, apply the dilute solution to planed lumber inside the spray box. The spray box is flanked at the infeed and outfeed by air chambers operated at negative pressure and the collected mist is vented to a squirrel cage type mist eliminator with an estimated control efficiency of 99.97% at 0.3 μm or larger droplet diameter. Collected mist is recycled. Immediately following the spray box, lumber is graded, trimmed to length, and stacked for storage and delivery.

Table 4.4: Spray Coating System (EU4) PTE

| Pollutant | EF | units | EF source | tpy |
|-----------|------|--------|------------------------------|-----|
| VOC | 0.01 | lb/gal | 20NOC1449 BACT determination | 0.1 |

4.7 Fire Pump Engine (EU5)

SPI Lumber uses a compression-ignition diesel engine to power their fire pump. The engine is exempt from new source review, but is included in the AOP as a significant emissions unit because there is an applicable NESHAP standard, 40 CFR Part 63 Subpart ZZZZ.

Table 4.5: Fire Pump Engine (EU5) PTE

| Pollutant | EF | units | EF source | lb/hr | tpy |
|-----------|----------|----------|-------------------|-------|--------|
| NOx | 3.10E-02 | lb/hp-hr | AP-42 Table 3.3-1 | 4.7 | 0.033 |
| CO | 6.68E-03 | lb/hp-hr | AP-42 Table 3.3-1 | 1.0 | 0.0071 |
| SO2 | 2.05E-03 | lb/hp-hr | AP-42 Table 3.3-1 | 0.31 | 0.0022 |
| PM10/2.5 | 2.20E-03 | lb/hp-hr | AP-42 Table 3.3-1 | 0.33 | 0.0023 |
| VOC | 2.47E-03 | lb/hp-hr | AP-42 Table 3.3-1 | 0.37 | 0.0026 |

PTE based on 100 hours of operation per year allowed for maintenance and testing

4.8 Summary of Emissions Units

Emission unit designations and brief descriptions are provided in Table 4.6 below.

TABLE 4.6. Emissions Units Covered Under Permit

| Emission Unit ID# | Description | Air Pollution Control Technology | Effective NOCs |
|-------------------|--|---|----------------|
| EU1 | Babcock and Wilcox Boiler <ul style="list-style-type: none"> ▪ Model: 101-88B ▪ Maximum rated heat input: 40 MMBtu/hr ▪ Maximum Steam Production rate: 32,000 lbs at 300 °F and 50 psi ▪ Fuel: Natural gas ▪ Established: 2003 | Good combustion practices | 01NOC192 |
| EU2 | Lumber Dry Kilns <ul style="list-style-type: none"> ▪ Eight (8) double-track lumber dry kilns ▪ Maximum rated capacity: 312,000 bf of lumber (each) ▪ Established: 2003 | Computerized temperature management systems | 21NOR1531 |
| EU3 | Planer Mill Pneumatic Dust Collection System <ul style="list-style-type: none"> ▪ Maximum rated air flow: 50,440 acfm ▪ Established: 2003 | Dual Cyclones, Baghouse (MAC #120MCF494) | 04NOC392 |
| EU4 | Spray Application System for Wood Brighteners and Fungicides <ul style="list-style-type: none"> ▪ Established: 2003 | Squirrel cage mist eliminators, HAP-free and low-VOC coatings | 02NOC268 |
| EU5 | Diesel Engine Powering Emergency Fire Pump <ul style="list-style-type: none"> ▪ Manufacturer: Clarke Fire Pumps ▪ Model Year: 1996 ▪ Maximum Rated Output: 151 BHP ▪ Established: 2011 | Ultra-low sulfur diesel, Good combustion practices | N/A |

Table Notes: The information in Table 4.6 is for purposes of description only.

4.9 Compliance History

SPI Lumber has not received any High Priority Violations (HPVs) since Title V program inception. There have been 17 minor permit deviations which have been resolved administratively. A summary of AOP permit deviations is provided in Attachment 2.

5.0 INSIGNIFICANT EMISSION UNITS

In addition to the emission units identified and described in Table 4.6, the Facility includes emissions units that qualify as Insignificant Emissions Units (IEU) under WAC 173-401-530. Designation of an emission unit or activity as an IEU does not exempt the unit or activity from any applicable requirement, including generally applicable requirements. However, testing, monitoring, recordkeeping, and reporting required by the AOP are not required for IEUs unless determined by the permitting authority to be necessary to assure compliance, or unless it is otherwise required by a generally applicable requirement of the state implementation plan.

Where a permit does not require testing, monitoring, recordkeeping and reporting for an IEU, the Permittee may certify continuous compliance if there were no observed, documented, or known instances of noncompliance during the reporting period. Where a permit does require testing, monitoring, recordkeeping and reporting for an IEU, the Permittee may certify continuous compliance when the testing, monitoring, recordkeeping required by the permit revealed no violations during the period, and there were no observed, documented, or known instances of noncompliance during the reporting period. The permit shield per WAC 173-401-640 does not apply to IEUs.

SPI Lumber listed the units and activities described in Table 5 as IEUs in their AOP renewal application. ORCAA reviewed SPI Lumber’s list of IEUs and concurs with SPI Lumber that these units and activities qualify as IEUs. ORCAA reviewed SPI Lumber’s list of IEUs shown in Table 5 and determined:

1. Testing, monitoring, recordkeeping, and reporting are not necessary to assure compliance with applicable requirements, including generally applicable requirements.
2. No federally enforceable applicable requirements apply to any of the units or activities listed.

TABLE 5. Insignificant Emissions Units Identified in Application

| Insignificant Emission Unit ID# | Description | IEU Basis |
|---------------------------------|--|--|
| IEU1 | An approximately 270 foot by 980 foot log storage area | Fugitive Emissions Only WAC 173-401-530(1)(d) |
| IEU2 | A portable debarker/ hog fuel grinder and associated engine | Fugitive Emissions Only WAC 173-401-530(1)(d) |
| IEU3 | An enclosed sawmill | Fugitive Emissions Only WAC 173-401-530(1)(d) |
| IEU4 | Enclosed conveyors transporting bark and sawdust to the fuel house | Fugitive Emissions Only WAC 173-401-530(1)(d) |
| IEU5 | Enclosed conveyors transporting chips to barge and truck loadout | Fugitive Emissions Only WAC 173-401-530(1)(d) |
| IEU6 | Chip piles | Fugitive Emissions Only WAC 173-401-530(1)(d) |
| IEU7 | Loadout of chips to trucks | Fugitive Emissions Only WAC 173-401-530(1)(d) |
| IEU8 | Loadout of chips to barges | Fugitive Emissions Only WAC 173-401-530(1)(d) |
| IEU9 | Lubricating oil and hydraulic oil tanks | Categorically Exempt WAC 173-401-532(3) |
| IEU10 | Storage of pressurized gas | Categorically Exempt WAC 173-401-532(5) |
| IEU11 | Maintenance shops | Categorically Exempt WAC 173-401-532(7) |

| | | |
|-------|---|--|
| IEU12 | Vents from rooms, buildings and enclosures that contain permitted emissions units or activities from which local ventilation, controls and separate exhaust are provided. | Categorically Exempt WAC 173-401-532(9) |
| IEU13 | Vehicle internal combustion engines | Categorically Exempt WAC 173-401-532(10) |
| IEU14 | Welding operations | Categorically Exempt WAC 173-401-532(12) |
| IEU15 | Plant upkeep operations | Categorically Exempt WAC 173-401-532(33) |
| IEU16 | Pavement cleaning and sweeping | Categorically Exempt WAC 173-401-532(35) |
| IEU17 | Food preparation | Categorically Exempt WAC 173-401-532(41) |
| IEU18 | Portable drums and totes | Categorically Exempt WAC 173-401-532(42) |
| IEU19 | Landscaping activities | Categorically Exempt WAC 173-401-532(43) |
| IEU20 | General vehicle maintenance | Categorically Exempt WAC 173-401-532(45) |
| IEU21 | Comfort air conditioning | Categorically Exempt WAC 173-401-532(46) |
| IEU22 | Office activities | Categorically Exempt WAC 173-401-532(49) |
| IEU23 | Sampling connections | Categorically Exempt WAC 173-401-532(51) |
| IEU24 | Parking lot exhaust | Categorically Exempt WAC 173-401-532(54) |
| IEU25 | Indoor mechanical operations not resulting in emissions | Categorically Exempt WAC 173-401-532(55) |
| IEU26 | Repair and maintenance activities | Categorically Exempt WAC 173-401-532(74) |
| IEU27 | Totally closed conveyors | Categorically Exempt WAC 173-401-532(86) |
| IEU28 | Air compressors and pneumatically operated equipment | Categorically Exempt WAC 173-401-532(88) |
| IEU29 | Steam leaks | Categorically Exempt WAC 173-401-532(89) |
| IEU30 | Vacuum system exhaust | Categorically Exempt WAC 173-401-532(108) |

Table 5 Notes:

1. All IEUs identified in Table 5 are subject to only general applicable requirements in the AOP.
2. ORCAA has determined no additional monitoring, record-keeping or reporting is required for any of the IEUs identified.
3. IEUs identified in Table 5 were listed in SPI Lumber's AOP renewal application and previous AOP.

6.0 ACTUAL EMISSIONS

Actual annual emissions are reported to ORCAA annually in conjunction with ORCAA's Emissions Inventory program. The most recent emissions inventory for SPI Lumber that has been reviewed and approved by ORCAA is the emissions inventory for calendar year 2020.

Table 6.1 SPI Lumber Facility Actual Emissions for CY 2020

| Pollutant | Annual Emissions | Units |
|---|------------------|--------|
| PM (Total Particulate)* | 33.0 | Tons |
| PM-10 (Total Particulate) ($\leq 10\mu\text{m}$) | 21.2 | Tons |
| PM 2.5 (Fine Particulate ($\leq 2.5\mu\text{m}$)) | 12.6 | Tons |
| VOC as Volatile Organic Compounds | 91.7 | Tons |
| SO ₂ (Sulfur Dioxide) | 0.0 | Tons |
| NO _X (Nitrogen Oxides) | 0.2 | Tons |
| CO (Carbon Monoxide) | 0.4 | Tons |
| Acetaldehyde | 22,455 | Pounds |
| Methanol | 15,974 | Pounds |
| Formaldehyde | 378 | Pounds |
| Acrolein | 286 | Pounds |
| Propionaldehyde | 210 | Pounds |
| Total HAP | 19.7 | Tons |

*PM emissions assumed old 0.005 grains/dscf emission factor for EU3 and are not representative of current emission factors

7.0 NEW SOURCE REVIEW APPROVALS

ORCAA maintains records for construction activities at the Facility, which are listed in Table 7.1. There have been several key projects triggering ORCAA's approval through New Source Review (NSR) and Notice of Construction (NOC) permit applications. Several of the NOC approvals issued by ORCAA are conditional and contain emissions limits and associated monitoring, recordkeeping, and reporting requirements. These requirements are included in the AOP as applicable unless the NOC was superseded or the emissions unit retired. Condition by condition cross referencing of effective approval orders to AOP permit conditions is retained as part of the review record for this permit.

Table 7.1: Approval Orders Issued at Facility

| Approval order | Project Description |
|----------------|--|
| 01NOC592 | Effective Approval Order. In May 2002, ORCAA granted SPI Lumber conditional approval to construct a lumber mill in Aberdeen, Grays Harbor County. |
| 02NOC268 | Effective Approval Order. In December 2002, ORCAA granted SPI Lumber conditional approval to spray coat lumber with water-based fungicides. |

| | |
|-----------|---|
| 04NOC347 | Effective, but unconditional. In March 2004, ORCAA granted SPI Lumber unconditional approval to construct an eighth dry kiln. No increase in lumber production was included in the approval order. |
| 04NOC392 | Effective Approval Order. In February 2005, ORCAA granted SPI Lumber conditional approval to replace the planer baghouse, which was under-designed and required frequent maintenance, with a higher capacity model. |
| 06NOC490 | Superseded by 15ADM1089. In September 2006, ORCAA granted SPI Lumber conditional approval to install a ninth dry kiln and increase both kiln dried and total lumber production. As SPI Lumber did not install a ninth kiln within 18 months of approval, SPI Lumber may not construct an additional kiln without submitting a new NOC application. |
| 06NOC520 | Not effective. In December 2006, SPI Lumber applied for approval to increase kiln temperatures from 180 °F to 200 °F and to increase lumber production. ORCAA issued a preliminary determination but final approval could not be granted because Ecology could not grant approval through a Tier 2 air toxics analysis. The permitting action is now closed. |
| 11MOD861 | Superseded by 15ADM1089. On March 20, 2012, ORCAA granted conditional approval for SPI Lumber to raise the maximum kiln temperature from 180 °F to 200 °F. |
| 15ADM1089 | Superseded by 20NOC1449. On June 22, 2015, ORCAA amended 11MOD861 by removing Condition 10, which set a limit on the amount of Formaldehyde SPI Lumber can emit. The eliminated condition was erroneously based on a draft Second Tier Analysis from Ecology (part of the 06NOC520 permitting process) that was never finalized. |
| 20NOC1449 | Superseded by 21NOR1531. On January 13, 2021, ORCAA granted conditional approval for SPI Lumber to install 8 replacement lumber dry kilns, increase the lumber kiln-drying capacity of the Facility, and kiln-dry additional species. |
| 21NOR1531 | Effective Approval Order. On November 17, 2021, ORCAA granted conditional approval for SPI Lumber to revise the monitoring and recordkeeping requirements for the 8 lumber dry kilns approved under 20NOC1449 consistent with other lumber dry kilns located in ORCAA’s jurisdiction. |

Table 7.2: Requirements from Effective NSR Approval Orders

| NSR Permit # (Date) | NSR Condition # | Permit Condition (Bolded sections are included as applicable requirements in the AOP) | AOP Condition or Determination |
|---------------------|-----------------|--|--------------------------------|
| 01NOC192 (5/8/2002) | 1 | Boiler NO_x Limit: Emissions of nitrogen oxides (NO_x) from the boiler shall not exceed 0.05 pounds per million Btu heat input (lb/MMBtu_{heat input}) as determined by EPA 40CFR Part 60 Appendix A Method 7E. | Condition AR2.1 |
| | 2 | Boiler CO Limit: Emissions of carbon monoxide (CO) from the boiler shall not exceed 0.05 pounds per million Btu heat input (lb/MMBtu_{heat input}) as determined by EPA 40CFR Part 60 Appendix A Method 10A. | Condition AR2.2 |
| | 3 | Boiler Opacity Limit: Emissions from the boiler shall not exceed 10% opacity in accordance with EPA 40CFR Part 60 Appendix A Method 9, except during start-up or shut-down of the boiler. | Condition AR2.3 |

| NSR Permit # (Date) | NSR Condition # | Permit Condition (Bolded sections are included as applicable requirements in the AOP) | AOP Condition or Determination |
|---------------------|-----------------|--|---|
| | 4 | Baghouse Opacity Limit: Emissions from the baghouse shall not exceed 10% opacity in accordance with EPA 40CFR Part 60 Appendix A Method 9. | Not Ongoing – superseded by Condition #4 from 04NOC392 |
| | 5 | Fuel Requirements and Monitoring: The boiler shall burn only natural gas. The owner or operator shall maintain monthly records of the fuel consumption. Records shall include fuel purchase receipts and shall be retained on-site for not less than 2 years. | Condition AR2.4 (first sentence) Condition RK3 (Second sentence) Condition RK13(d) (third sentence) |
| | 6 | Recordkeeping: A file containing the following items shall be maintained and made available at the site: a. A copy of the ORCAA Final Determination and ORCAA Approval Order containing the applicable requirements and conditions for approval. b. Operations and Maintenance Plan c. Natural gas consumption records | Condition RK12 (items a and b) Condition RK3 (item c) |
| | 7 | NSPS Reporting: Information required to be submitted to EPA Region 10 in 40CFR Part 60 Subparts A and Dc shall also be submitted to OAPCA. | Not Ongoing – Part 60 authority delegated to ORCAA. |
| | 8 | Sampling Ports: Permanent sampling ports shall be installed on the boiler exhaust stack prior to commencement of operation. The sampling ports shall meet the requirements of 40CFR Part 60, Appendix A, Method 1. | Not Ongoing – initial compliance specification |

| NSR Permit # (Date) | NSR Condition # | Permit Condition (Bolded sections are included as applicable requirements in the AOP) | AOP Condition or Determination |
|--------------------------|-----------------|--|--------------------------------|
| | 9 | Operation and Maintenance Plan: The owner or operator shall develop and implement an Operation and Maintenance (O&M) plan for operating and maintaining the lumber mill and its pollution control equipment. The O&M plan shall be kept in a manual on site and made available to all employees of the facility. At a minimum, the O&M plan shall contain procedures for the inspection and prompt repair of the boiler, cyclone and baghouse. | Condition AR1.13 |
| 02NOC268 (12/19/2002) | 1 | Material Use: The spray system shall only be used to apply water-borne fungicide solutions. Any change in coating type or manufacturer shall first be approved by ORCAA. | Condition AR5.1 |
| | 2 | Material Use records: The owner or operator shall maintain records of the amounts of coatings used. Records shall be updated monthly and shall be sufficient to verify the actual, cumulative amount of VOC-containing materials used. Records shall include the following: a. Purchase invoices indicating the amount of VOC-containing materials purchased, date of purchase, and corresponding product identification numbers; b. Actual cumulative use of VOC-containing materials in terms of gallons per month; and, c. Safety Data Sheets (SDS) for all VOC-containing materials used. | Condition RK3 |

| NSR Permit # (Date) | NSR Condition # | Permit Condition (Bolded sections are included as applicable requirements in the AOP) | AOP Condition or Determination |
|---------------------|-----------------|--|--------------------------------|
| | 3 | <p>Stack Specifications: The spray system shall exhaust through a vertical stack, with a vertical discharge to the atmosphere at a height of at least six feet above the peak height of the connected building. There shall be no flow obstructions at the point of discharge from the stack (ie. cap).). However, a weather-proof stack exhaust configuration which does not obstruct the air flow as it exits the stack, is acceptable.</p> | Condition AR5.2 |
| | 4 | <p>Operation and Maintenance Plan: The owner or operator shall devise, implement and update when necessary, an Operations and Maintenance (O&M) plan for assuring good operating and repair of all generating equipment and control devices. The plan shall include:</p> <ul style="list-style-type: none"> a. Inspection and maintenance procedures and schedule. b. Prescribed acceptable ranges for operation based on manufacturer recommendations. | Condition AR5.3 |

| NSR Permit # (Date) | NSR Condition # | Permit Condition (Bolded sections are included as applicable requirements in the AOP) | AOP Condition or Determination |
|---------------------|-----------------|---|---|
| | 5 | <p>VOC Emissions: All reasonable measures and precautions shall be taken for minimizing volatile emissions including but not limited to:</p> <ul style="list-style-type: none"> a. Keeping VOC-containing material in closed containers. b. Minimizing and promptly cleaning up spills and leaks of VOC-containing materials. c. Using low-VOC coatings and solvents when suitable. d. Conducting coating operations only in the approved spray system. e. Operating the mist eliminator and exhaust/ventilation systems at all times during coating operations. f. Turning off the spray system when not being used to coat lumber. g. Immediately collecting all overspray/runoff in a closed container. | Condition AR5.4 |
| | 6 | <p>Required Records: The following records shall be maintained on-site for no less than two years from origination, and made available for inspection by ORCAA upon request:</p> <ul style="list-style-type: none"> a. The O&M plan required by condition #4. b. Material use records required by condition #2. | Condition RK12 (item a) Condition RK1 (item b) |
| 04NOC347 (3/1/2004) | None | NA | NA |
| 04NOC392 (2/2/2005) | 1 | Previous Conditions: Approval Order conditions previously issued under 01NOC192 pertaining to the original baghouse remain in force for the replacement baghouse approved under this order. | Not Ongoing – statement of intent. |

| NSR Permit # (Date) | NSR Condition # | Permit Condition (Bolded sections are included as applicable requirements in the AOP) | AOP Condition or Determination |
|---------------------|-----------------|---|--------------------------------|
| | 2 | Stack: The exhaust stack of the MAC MCF Filter Model # 120MCF494 baghouse shall have a vertical discharge to the atmosphere at least 6 feet above the peak height of the building. There shall be no flow obstructions at the point of discharge from the stack (i.e. cap). However, a weather-proof stack exhaust configuration which does not obstruct the air flow as it exits the stack is acceptable. | Condition AR4.1 |
| | 3 | Monitoring: The baghouse shall be equipped with a device for continuously monitoring pressure drop across the filters. Visual read-out from the monitor shall be accessible during inspection. | Condition AR4.2 |
| | 4 | Baghouse Opacity Limit Emissions from the baghouse shall not exceed 10% opacity in accordance with EPA 40CFR Part 60 Appendix A Method 9. | Condition AR4.3 |
| | 5 | Operation and Maintenance Plan: Sierra Pacific Industries shall develop and implement an Operations and Maintenance (O&M) plan for operating and maintaining the baghouse. The O&M plan shall be kept in a manual on site and shall be made available to all operators of the unit. At a minimum, the O&M plan shall include the manufacturer's recommended minimum and maximum operating pressure drops across the fabric filters, and procedures for inspection and prompt repair of the baghouse. | Condition AR4.4 |

| NSR Permit # (Date) | NSR Condition # | Permit Condition (Bolded sections are included as applicable requirements in the AOP) | AOP Condition or Determination |
|------------------------|-----------------|--|---|
| | 6 | <p>Recordkeeping: The following records shall be maintained and kept on site for at least five years:</p> <p>a) A copy of the ORCAA’s Final Determination and Approval Order containing the applicable requirements and conditions for approval.</p> <p>b) The O & M Plan required by condition #5.</p> | Condition RK12 |
| 06NOC490 (9/29/2006) | None | Superseded | NA |
| 11MOD861 (3/20/2012) | None | Superseded | NA |
| 15ADM1089 (6/22/2015) | None | Superseded | NA |
| 20NOC1449 (1/13/2021) | None | Superseded | NA |
| 21NOR1531 (11/17/2021) | 1 | Technical Specifications: requires approved equipment to comply with specifications in application unless otherwise stated in approval order. | Not Ongoing – used as a point of reference for determining future modifications which may trigger NSR. |

| NSR Permit # (Date) | NSR Condition # | Permit Condition (Bolded sections are included as applicable requirements in the AOP) | AOP Condition or Determination |
|---------------------|-----------------|--|--------------------------------|
| | 2 | <p>Kiln Emissions Limits: Cumulative emissions from the lumber dry kilns shall not exceed the following limits. Compliance with these limits shall be determined monthly according to condition 11.</p> <p>VOC: 238 Acetaldehyde: 14 Formaldehyde: 0.9 Acrolein: 6 (Units in tons per consecutive 12-month period, tpy)</p> | Condition AR3.1 |
| | 3 | <p>Material Limitation: The facility is permitted to dry hemlock and Douglas Fir. SPI may dry other species of wood if they can demonstrate that it results in equal or lower emission rates of each TAP, overall VOC, and PM₁₀ compared to the maximum of either Hemlock or Douglas Fir, by providing ORCAA with acceptable emission factors for the other species of wood.</p> | Condition AR3.2 |
| | 4 | <p>Kiln Temperature: Drying temperatures must be maintained at 200 °F or less on a daily average basis (when the kiln is actively drying). This condition may be demonstrated using continuous kiln drying temperature records when either:</p> <ul style="list-style-type: none"> -Drying temperatures are maintained less than 200 °F over the entire drying cycle; or, -Visual approximation of the average temperature over the entire drying cycle can be determined less than 200 °F. | Condition AR3.3 |

| NSR Permit # (Date) | NSR Condition # | Permit Condition (Bolded sections are included as applicable requirements in the AOP) | AOP Condition or Determination |
|---------------------|-----------------|---|--------------------------------|
| | 5 | <p>Dust Management Plan: The owner or operator shall implement a plan for controlling emissions of fugitive dust. The plan shall include, but is not limited to, the following:</p> <ul style="list-style-type: none"> a. Replacing cleated belts with smooth belts; b. Installing heavy-duty belt wipers/cleaners on all outside conveyor belts; c. Sealing up transition points on outside fuel conveyors; d. Installing water-misting systems at transition points; e. Erecting a tunnel to enclose infeed to the planer hog; f. Installing bottom covers on belts that deliver fuel from the sawmill to the fuel house; g. Enclosing all conveyors at the lower level inside the sawmill; and, h. Operating a street sweeper on a daily basis. | Condition AR1.12 |
| | 6 | <p>Operation and Maintenance Plan: The owner or operator shall develop, implement, and modify when necessary an operation and maintenance plan to assure continuous compliance with the kiln temperature limitation. The plan shall include regularly scheduled testing of the temperature monitoring system.</p> | Condition AR3.4 |
| | 7 | <p>Reporting Excess Emissions: Excess emissions shall be reported to ORCAA as soon as possible and within 24 hours. It shall be the burden of the owner or operator to prove that excess emissions were unavoidable consistent with WAC 173-400-107(4) – (6) and ORCAA Rule 8.7(c).</p> | Condition R9 |

| NSR Permit # (Date) | NSR Condition # | Permit Condition (Bolded sections are included as applicable requirements in the AOP) | AOP Condition or Determination |
|---------------------|-----------------|---|--------------------------------|
| | 8 | Emissions Inventory: No later than March 1st of each year, the owner or operator shall submit an inventory of the actual amount of pollutants emitted during the previous calendar year. The inventory shall be submitted to ORCAA on standard inventory reporting forms and be accompanied by associated calculations, data or other information used in calculating the reported emissions. A request for an extension may be considered if a request from the Responsible Official is received by ORCAA prior to February 25th. The request must include a statement of the unexpected circumstances that occurred, how this affected the Permittee's ability to submit the report on time, and the number of additional days needed. | Condition R6 |
| | 9 | Anti-Mold System Coatings Application: a. Spray coatings applied in Anti-mold system spray box/spray chamber must contain a VOC content of 0.01 lbs/gallon or less, as identified on the associated Safety Data Sheet (SDS). b. Spray coatings applied in Anti-mold system spray box/spray chamber are limited to 20,000 gallons in any rolling 12-month period. | Condition AR5.5 |
| | 10 | Kiln Temperature Monitoring. The following applies: a. Continuously monitor dry kiln drying temperatures. b. Monitor and record the dry kiln dry-bulb set point temperature over the entire drying cycle for each batch. c. Temperature sensors must be maintained and positioned to accurately monitor drying temperatures. | Condition M8 |

| NSR Permit # (Date) | NSR Condition # | Permit Condition (Bolded sections are included as applicable requirements in the AOP) | AOP Condition or Determination |
|---------------------|-----------------|--|--------------------------------|
| | 11 | Kiln Emissions Monitoring. On a monthly basis, the owner or operator shall determine by calculation the cumulative total Volatile Organic Compounds (VOC), Acetaldehyde, Acrolein and Formaldehyde emitted by the kilns over the previous month and 12-consecutive month periods. Emissions shall be calculated based on the actual amounts of wood species dried and ORCAA-approved emissions factors. | Condition M9 |
| | 12 | Record Keeping: The owner or operator shall maintain the following records and make them available to ORCAA upon request: a. Monthly and running 12-month quantities in thousand board feet (Mbf) of dimensional green lumber produced; b. Monthly and running 12-month quantities in thousand board feet (Mbf) of dimensional kiln-dried lumber produced by species; c. Monthly and running 12-month quantities in undiluted gallons of anti-mold solution used; d. Monthly and running 12-month cumulative total emissions of VOC, Acetaldehyde, Acrolein and Formaldehyde from the dry kilns; e. For each kiln, records demonstrating dry-bulb set point temperatures were maintained below 200 °F for each batch; f. [Condition superseded]; and, g. The date, location, proof of calibration and specifications for each temperature sensor installed in each kiln. | Condition RK3 |

8.0 REGULATORY DETERMINATIONS

8.1 Effective Versions of Applicable Requirements

Effective versions of each applicable requirement in the AOP for the SPI Lumber Facility are the versions that were effective on the date the AOP was issued.

8.2 Title V of the Federal Clean Air Act

SPI Lumber is subject to Title V of the Federal Clean Air Act, it is therefore required to apply for and obtain an Air Operating Permit for the following reasons, each of which would be sufficient individually:

1. EU2, lumber drying, has a potential to emit 14 tons per year (TPY) of acetaldehyde, which is a hazardous air pollutant listed in Section 112(b) of the Federal Clean Air Act and exceeds the Title V threshold of 10 TPY for individual HAP emissions.
2. EU2 has a potential to emit 40.7 TPY of methanol, which is a hazardous air pollutant listed in Section 112(b) of the Federal Clean Air Act and exceeds the Title V threshold of 10 TPY for individual HAP emissions.
3. EU2 has a potential to emit greater than 56.3 TPY of combined hazardous air pollutants listed in Section 112(b) of the Federal Clean Air Act and exceeds the Title V threshold of 25 TPY for any combination of HAP.
4. The facility has a potential to emit 239 TPY of volatile organic compounds and exceeds the Title V threshold of 100 TPY for criteria pollutants.

8.3 New Source Performance Standards (NSPS)

EPA establishes New Source Performance Standards (NSPS) for new, modified or reconstructed facilities and source categories emitting criteria air pollutants. NSPS are codified in 40 CFR Part 60. The following sections detail regulatory determinations for relevant regulations under 40 CFR Part 60, which are referred to as "Subparts."

40 CFR Part 60, Subpart D: Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. Subpart D applies to fossil-fuel-fired steam generating units of more than 250 MMBtu/hr. EU1 is a natural gas fired package boiler with a maximum rated heat input capacity of 40 MMBtu/hr. Therefore, **Subpart D does not apply.**

40 CFR Part 60, Subpart Da: Standards of Performance for Electric Utility Steam Generating Units. Subpart Da applies to electric utility steam generating units capable of combusting more than 250 MMBtu/hr heat input of fossil fuel, either alone or in combination with any other fuel. EU1 is a natural gas fired package boiler with a maximum rated heat input capacity of 40 MMBtu/hr. **Therefore, Subpart Da does not apply.**

40 CFR Part 60, Subpart Db: Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. Subpart Db applies to steam generating units with a heat input capacity greater than 100 MMBtu/hr. EU1 is a natural gas fired package boiler with a maximum rated heat input capacity of 40 MMBtu/hr. **Therefore, Subpart Db does not apply.**

40 CFR Part 60, Subpart Dc: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. Subpart Dc applies to steam generating units with a heat input capacity greater than 10 MMBtu/hr but less than 100 MMBtu/hr that commenced construction, modification, or reconstruction after June 9, 1989. The package boiler at SPI Lumber has a maximum design heat input capacity of 40 MMBtu/hr. **Therefore, Subpart Dc applies to SPI Lumber’s package boiler.**

40 CFR Part 60, Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Subpart IIII Implements the Federal Clean Air Act to require more stringent standards for stationary compression ignition engines, consistent with recent revisions to standards for similar mobile engines. ORCAA staff determined that Subpart IIII doesn’t apply to the fire pump engine because it was manufactured before April 1, 2006. **Therefore, Subpart IIII does not apply.**

Table 8.1: Conditions from 40 CFR Part 60 Subpart A through 40 CFR Part 60 Subpart Dc as Applied to EU1

| CITATION | DESCRIPTION | APPLICABLE? | CONDITION |
|--------------|--|---------------------------|-----------|
| §60.1-§60.4 | Applicability, definitions, units and abbreviations, and address | No | NA |
| §60.5 | Determination of construction or modification | If requested by Authority | NA |
| §60.6 | Review of plans | If requested by Authority | NA |
| §60.7(a) | Notifications and record keeping (a): requires notification to the Authority of construction, startup, modification resulting in increases in the emission rate of a pollutant subject to a standard, demonstration of continuous monitoring system performance, opacity observations, and that COMS will be used to satisfy opacity monitoring requirements. | Not ongoing | NA |
| §60.7(b) | Notifications and record keeping (b): requires records of startup, shutdown, and malfunction | Yes | RK3 |
| §60.7(c)-(e) | Notifications and record keeping (c)-(e): requires submission of excess emission reports by facilities required to install and maintain continuous emission monitoring devices and specifies content and frequency of such reports | No | NA |

| CITATION | DESCRIPTION | APPLICABLE? | CONDITION |
|--------------|--|-------------|-----------|
| §60.7(f) | Notifications and record keeping (f): requires the owner or operator to maintain a file containing all information required by Part 60 in a permanent form suitable inspection for at least two years | Yes | RK13 |
| §60.7(g)&(h) | Notifications and record keeping (g)&(h): allows streamlining and clarifications | No | NA |
| §60.8 | Performance Testing: applies to affected facilities only | No | NA |
| §60.9 | Availability of information: applies to Authority | No | NA |
| §60.10 | State authority: applies to state and local agencies | No | NA |
| §60.11 | Compliance with standards and maintenance requirements: applies to affected facilities only | No | NA |
| §60.12 | Circumvention: applies to affected facilities only | No | NA |
| §60.13 | Monitoring requirements: applies to affected facilities only | No | NA |
| §60.14 | Modification: specifies what is meant by a modification | No | NA |
| §60.15 | Reconstruction: specifies what is meant by reconstruction | No | NA |
| §60.16 | Priority List: contains a prioritized list of major source categories | No | NA |
| §60.17 | Incorporations by reference | No | NA |
| §60.18 | General control device and work practice standards: applies to affected facilities only | No | NA |
| §60.19 | General notification and reporting requirements: no ongoing notifications required | Not ongoing | NA |

Table 8.2: Conditions from 40 CFR Part 60 Subpart Dc as applied to EU1

| CITATION | DESCRIPTION | APPLICABLE? | CONDITION |
|----------|--|-------------|-----------|
| §60.40c | Applicability and delegation of authority | No | NA |
| §60.41c | Definitions | No | NA |
| §60.42c | Standard for sulfur dioxide: applies only to boilers that combust coal or oil. | No | NA |
| §60.43c | Standard for particulate matter: applies only to boilers that combust coal, oil, or wood. | No | NA |
| §60.44c | Compliance and performance test methods and procedures for sulfur dioxide: applies only when there is a sulfur dioxide standard | No | NA |

| CITATION | DESCRIPTION | APPLICABLE? | CONDITION |
|----------------|---|-------------|-----------|
| §60.45c | Compliance and performance test methods and procedures for particulate matter: applies only when there is a particulate matter standard | No | NA |
| §60.46c | Emission monitoring for sulfur dioxide: applies only when there is a sulfur dioxide standard | No | NA |
| §60.47c | Emission monitoring for particulate matter: applies only when there is a particulate matter standard | No | NA |
| §60.48c(a) | Reporting and recordkeeping requirements (a): requires notification of startup of affected facilities. | Not ongoing | NA |
| §60.48c(b) | Reporting and recordkeeping requirements (b): requires submission of performance test data for facilities subject to SO ₂ , PM, or opacity limits under this subpart. | No | NA |
| §60.48c(c) | Reporting and recordkeeping requirements (c): requires submission of excess emissions reports for facilities subject to an opacity limit under this subpart. | No | NA |
| §60.48c(d)-(f) | Reporting and recordkeeping requirements (d) through (f): requires maintenance and submission of records for facilities subject to SO ₂ , fuel oil sulfur limits, or percent reduction requirements under this subpart. | No | NA |
| §60.48c(g) | Reporting and recordkeeping requirements (g): requires maintenance of records of types and quantities of fuels combusted during each calendar month | Yes | RK3 |
| §60.48c(h) | Reporting and recordkeeping requirements (h): requires calculation of annual capacity factors for facilities subject to a federally enforceable requirement limiting the annual capacity for any fuel or mixture of fuels. | No | NA |
| §60.48c(i) | Reporting and recordkeeping requirements (i): requires records required by this subpart to be maintained for at least five years | Yes | RK13 |
| §60.48c(j) | Reporting and recordkeeping requirements (j): sets a reporting period of six months for all reports required by this subpart | No | NA |

8.4 National Emission Standards for Hazardous Air Pollutants (NESHAP)

EPA establishes National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR Part 63 to regulate HAP emissions from major sources of HAP. This regulatory program defines a major source as any facility that has the potential to emit more than 10 tons per year of a single HAP or more than 25 tons per year of all HAPs combined. Based on current estimates of emissions the SPI Lumber Facility is a major HAP source.

40 CFR Part 63, Subpart DDDD: National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products: According to 40 CFR § 63.2231(a), facilities that are major sources of hazardous air pollutants and kiln dry lumber are subject to this subpart. According to 40 CFR § 63.2252, no requirements from this subpart or subpart A other than initial notification apply to equipment, including lumber kilns, that are not subject to any of the compliance options or work practice standards. **Therefore, no AOP conditions are based on this subpart.**

40 CFR Part 63, Subpart QQQQ: National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products: This subpart does not apply as the lumber produced by SPI Lumber at the Aberdeen lumber mill does not fit any of the descriptions of wood building products.

40 CFR Part 63, Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines: Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources for HAP emissions. In this case, SPI Lumber is a major source of HAPs.

SPI Lumber has one 151 hp diesel fire pump engine, which was constructed in 1996. For stationary RICE located at a major source of HAP emissions, an emergency stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006. **Therefore, Subpart ZZZZ applies and for the purposes of this standard, the unit is considered an existing emergency engine at a major source of HAPs.**

40 CFR Part 63, Subpart DDDDD: National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (The Boiler MACT): According to §63.7485, facilities that are major sources of hazardous air pollutants and operate boilers or process heaters are subject to this subpart. Subpart DDDDD applies to the boiler at SPI Lumber. The boiler is regulated as an existing boiler under the Boiler MACT and is required to comply with limits and standards by January 31, 2016. **Therefore, Subpart DDDDD applies and for purposes of regulation under 40 CFR Part 63, Subpart DDDDD, the Boiler is classified as an existing boiler under the “Units designed to burn gas 1 fuels” classification. Requirements for other subcategories do not apply.**

40 CFR Part 63, Subpart JJJJJ: National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters at Area Sources: In June of 2010, EPA proposed the NESHAP for boilers and process heaters at area sources of

hazardous air pollutants (HAP). The term “Area Sources” refers to sources of HAP emissions that are not major. The final rule was posted on the Federal Register on February 1, 2013. **Because SPI Lumber is a major source of HAP emissions, SPI Lumber is not an “Area Source” of HAP emissions and is not subject to Subpart JJJJJ.**

Table 8.3: Conditions from 40 CFR Part 63 Subpart A as Applied to EU5 with respect to Subpart ZZZZ

| CITATION | DESCRIPTION | APPLICABLE? | CONDITION |
|-----------------------------|---|-------------------------|-------------|
| § 63.1 - § 63.3 | Applicability, definitions, units and abbreviations. | No ongoing requirements | NA |
| § 63.4(a) | Prohibited activities. | Yes | RK13 R10 |
| § 63.4(b) | Circumvention.- No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard | Applicable if triggered | PA4 PA5 |
| § 63.4(c) | Prohibits fragmentation. | Applicable if triggered | PA6 |
| § 63.5 | Preconstruction Review and notification requirements. | No ongoing requirements | NA |
| § 63.6 | Compliance with standards and maintenance requirements. | No ongoing requirements | NA |
| § 63.7 | Testing requirements. | No ongoing requirements | NA |
| § 63.8(a)-(f) | Monitoring requirements. | No ongoing requirements | NA |
| § 63.9 | Notifications. | Yes | R10 |
| § 63.10 (a)(1)-(3), (5)-(7) | Applicability and general requirements for recordkeeping and reporting. | No | NA |
| § 63.10 (a)(4) | Until ORCAA has been delegated the authority to implement and enforce recordkeeping and reporting requirements, required reports shall be submitted to EPA Region 10. | No reports required. | NA |
| § 63.10 (b)(1) | General recordkeeping requirements. | Yes | RK1 RK10 |
| § 63.10 (b)(2) | Recordkeeping requirements for SSM and CMS and CEMS. | No | NA |
| § 63.10 (b)(3) | Recordkeeping for applicability determinations. | No | RK10 |

| CITATION | DESCRIPTION | APPLICABLE? | CONDITION |
|----------------------|--|-------------|-----------|
| § 63.10 (c) | Additional recordkeeping requirements for sources with continuous monitoring systems. | No | NA |
| § 63.10 (d) | General reporting requirements. | No | NA |
| § 63.10 (e) | Additional reporting requirements for sources with continuous monitoring systems. | No | NA |
| § 63.10 (f) | Waiver of recordkeeping or reporting requirements. | No | NA |
| § 63.11 | Control device and work practice standards. | No | NA |
| § 63.12 – § 63.16 | State authorities and delegations, agency addresses, incorporations by reference, availability of information and confidentiality, and performance track provisions. | No | NA |

Table 8.4: Conditions from Title 40 CFR Part 63 Subpart ZZZZ as applied to EU5

| Citation | Description | Applicable? | Condition |
|-----------------------------|---|---------------------------------------|-----------|
| Title 40 CFR 63.6580 | What is the purpose of this subpart? | Yes, although no ongoing requirements | N/A |
| Title 40 CFR 63.6585(a) | Stationary RICE definition | Yes, although no ongoing requirements | N/A |
| Title 40 CFR 63.6585(b) | Major Source definition | No ongoing requirements | N/A |
| Title 40 CFR 63.6585(c) | Area Source definition | No ongoing requirements | N/A |
| Title 40 CFR 63.6585(d)-(e) | Other requirements | No ongoing requirements | N/A |
| Title 40 CFR 63.6590(a)(1) | Affected Source - Existing stationary RICE | Yes, although no ongoing requirements | N/A |
| Title 40 CFR 63.6590(a)(2) | Affected Source - New stationary RICE | No ongoing requirements | N/A |
| Title 40 CFR 63.6590(a)(3) | Affected Source - Reconstructed stationary RICE | No ongoing requirements | N/A |
| Title 40 CFR 63.6590(b) | Stationary RICE subject to limited requirements | No ongoing requirements | N/A |
| Title 40 CFR 63.6590(c) | Stationary RICE subject to Title 40 CFR Part 60 | No ongoing requirements | N/A |

| | | | |
|----------------------------|--|---|-------|
| Title 40 CFR 63.6595(a)(1) | Compliance dates for existing stationary RICE at major sources | Yes, although no ongoing requirements | N/A |
| Title 40 CFR 63.6595(a)(2) | Compliance dates for starting up new or reconstructed stationary RICE at major sources before August 16, 2004. | No ongoing requirements | N/A |
| Title 40 CFR 63.6595(a)(3) | Compliance dates for starting up new or reconstructed stationary RICE at major sources after August 16, 2004. | No ongoing requirements | N/A |
| Title 40 CFR 63.6595(a)(4) | Compliance dates for starting up new or reconstructed stationary RICE less than 500hp at major sources before January 18, 2008. | No ongoing requirements | N/A |
| Title 40 CFR 63.6595(a)(5) | Compliance dates for starting up new or reconstructed stationary RICE at major sources after August 16, 2004. | No ongoing requirements | N/A |
| Title 40 CFR 63.6595(a)(6) | Compliance dates for starting up new or reconstructed stationary RICE at area sources before January 18, 2008. | No ongoing requirements | N/A |
| Title 40 CFR 63.6595(a)(7) | Compliance dates for starting up new or reconstructed stationary RICE at area sources after January 18, 2008. | No ongoing requirements | N/A |
| Title 40 CFR 63.6595(b) | Area sources that become a major source | No ongoing requirements | N/A |
| Title 40 CFR 63.6600 | What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions? | No ongoing requirements | N/A |
| Title 40 CFR 63.6601 | What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions? | No ongoing requirements | N/A |
| Title 40 CFR 63.6602 | What emission limitations must I meet if I own or operate existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions? | Yes, Items 1(a,b,c) of Table 2c to Subpart ZZZZ applies | AR6.1 |

| | | | |
|----------------------|---|--------------------------------|-------------------------|
| Title 40 CFR 63.6603 | What emission limitations and operating limitations must I meet if I own or operate existing stationary RICE located at an area source of HAP emissions? | No ongoing requirements | N/A |
| Title 40 CFR 63.6604 | What fuel requirements must I meet if I own or operate an existing stationary CI RICE? | <i>No ongoing requirements</i> | N/A |
| Title 40 CFR 63.6605 | What are my general requirements for complying with this subpart? | No ongoing requirements | N/A |
| Title 40 CFR 63.6610 | By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions? | No ongoing requirements | N/A |
| Title 40 CFR 63.6611 | By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions? | No ongoing requirements | N/A |
| Title 40 CFR 63.6612 | By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions? | No ongoing requirements | N/A |
| Title 40 CFR 63.6615 | When must I conduct subsequent performance tests? | No ongoing requirements | N/A |
| Title 40 CFR 63.6620 | What performance tests and other procedures must I use? | No ongoing requirements | N/A |
| Title 40 CFR 63.6625 | What are my monitoring, installation, collection, operation, and maintenance requirements? | Yes, ongoing requirements | AR6.2 AR6.3 AR6.4 |
| Title 40 CFR 63.6630 | How do I demonstrate initial compliance with the emission limitations and operating limitations? | No ongoing requirements | N/A |
| Title 40 CFR 63.6635 | How do I monitor and collect data to demonstrate continuous compliance? | No ongoing requirements | N/A |

| | | | |
|-------------------------|---|---------------------------------------|--------------|
| Title 40 CFR 63.6640 | How do I demonstrate continuous compliance with the emission limitations and operating limitations? | No ongoing requirements | N/A |
| Title 40 CFR 63.6640(f) | Requirements for emergency stationary RICE | Yes | AR6.4 RK3 |
| Title 40 CFR 63.6645 | What notifications must I submit and when? | No ongoing requirements | N/A |
| Title 40 CFR 63.6650 | What reports must I submit and when? | No ongoing requirements | N/A |
| Title 40 CFR 63.6655 | What records must I keep? | No ongoing requirements | N/A |
| Title 40 CFR 63.6660 | In what form and how long must I keep my records? | No ongoing requirements | N/A |
| Title 40 CFR 63.6665 | What parts of the General Provisions apply to me? | Yes, although no ongoing requirements | N/A |
| Title 40 CFR 63.6670 | Who implements and enforces this subpart? | No ongoing requirements | N/A |
| Title 40 CFR 63.6675 | What definitions apply to this subpart? | No ongoing requirements | N/A |

Table 8.5: Conditions from 40 CFR Part 63 Subpart A as Applied to EU1 with respect to Subpart DDDDD

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|--|---|-----------------------------|--------------------------|
| § 63.1 | Applicability. | Yes | No ongoing requirements. |
| § 63.2 | Definitions. | Yes | No ongoing requirements. |
| § 63.3 | Units and abbreviations. | Yes | No ongoing requirements. |
| <i>Prohibited activities and circumvention</i> | | | |
| § 63.4(a) | Prohibited activities. | If triggered | RK13 R10 |
| § 63.4(b) | Circumvention. | If triggered | PA4 PA5 |
| § 63.4(c) | Prohibits fragmentation. | If triggered | PA6 |
| <i>Preconstruction review and notification requirements</i> | | | |
| § 63.5 | Preconstruction Review and notification requirements. | If triggered | NA |
| <i>Compliance with standards and maintenance requirements</i> | | | |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|--|--|--------------------------------------|---|
| § 63.6 (a)-(c) | Applicability and compliance dates. | Yes, but no ongoing requirements. | NA |
| § 63.6 (d) | [Reserved] | - | NA |
| § 63.6 (e)(1) | Operation and maintenance requirements. | Not applicable per §63.7565 Table 10 | NA |
| § 63.6 (e)(2) | [Reserved] | - | NA |
| § 63.6 (e)(3) | Startup, shutdown and malfunction plan. | Not applicable per §63.7565 Table 10 | NA |
| § 63.6 (f)(1) | Compliance except during startup, shutdown and malfunction. | Not applicable per §63.7565 Table 10 | NA |
| § 63.6 (f)(2)-(3) | Compliance with non-opacity emission standards | NA | NA |
| § 63.6 (g)(1)-(3) | Alternative standard. | NA | NA |
| § 63.6 (h)(1) | Startup, shutdown, and malfunction exemptions to Opacity/Visible Emission Standards. | Not applicable per §63.7565 Table 10 | NA |
| § 63.6 (h)(2)-(h)(9) | Compliance with Opacity/Visible Emission Standards. | Not applicable per §63.7565 Table 10 | NA |
| § 63.6 (i)-(j) | Compliance Extensions. | NA | NA |
| <i>Performance testing requirements</i> | | | |
| § 63.7(a)(1)-(2), (4) | Performance test dates. | NA | NA |
| § 63.7(a)(3) | Section 114 Authority. | If triggered | (3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act. |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|--------------------------------|--|-------------------------------------|--|
| § 63.7(b-g) | Performance tests – Notification Requirements | Applicable if triggered | Operator shall follow procedures outlined in § 63.7(b-g) if source testing is ever required by the Administrator through § 63.7(a)(3). |
| Monitoring requirements | | | |
| § 63.8(a)-(b) | Applicability and conduct of monitoring | NA | NA |
| § 63.8(c-g) | Operation and maintenance of continuous monitoring systems | NA- no CMS | NA |
| § 63.9(a) | Until ORCAA has been delegated the authority to implement and enforce notification requirements, required reports shall be submitted to EPA Region 10. | Yes | R10 |
| § 63.9(b) | Initial notification. | Yes- but not an ongoing requirement | NA |
| §63.9(c) | Request for extension of compliance. | No | NA |
| §63.9(d) | Notification of Special Compliance Requirements for New Source | No | NA |
| §63.9(e) | Notification of Performance Test | If triggered | Operator shall follow procedures outlined in § 63.7(b-g) at least 60 days prior to testing if source testing is ever required by the Administrator through § 63.7(a)(3). |
| §63.9(f) | Notification of VE/Opacity Test | No | NA |
| §63.9(g) | Additional Notifications When Using CMS | No | NA |
| §63.9(h) | Notification of Compliance Status | No | NA |
| §63.9(i) | Adjustment of Submittal Deadlines | Yes, only if requested by source. | None |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|--|---|------------------------------------|-------------------------|
| §63.9(j) | Change in information already provided. | No | NA |
| § 63.10 (a)(1)-(3), (5)-(7) | Applicability and general requirements for recordkeeping and reporting. | Yes | No ongoing requirements |
| § 63.10 (a)(4) | Until ORCAA has been delegated the authority to implement and enforce recordkeeping and reporting requirements, required reports shall be submitted to EPA Region 10. | Yes | R10 |
| § 63.10 (b)(1) | General recordkeeping requirements. | Yes | RK1 RK10 |
| § 63.10 (b)(2)(i)-(ii), (iv)-(vi), (x), (xi), (xiii) | Recordkeeping requirements for SSM and CMS and CEMS. | Yes | RK3 |
| § 63.10 (b)(2)(iii) | Records related to maintenance of air pollution control equipment. | No | NA |
| § 63.10 (b)(2)(vii)-(ix) | Records related to performance tests. | No | NA |
| § 63.10 (b)(2)(xii) | Waiver of recordkeeping and reporting requirements. | No | NA |
| § 63.10 (b)(2)(xiv) | Documentation supporting initial notifications and notifications of compliance status. | Yes | RK10 |
| § 63.10 (b)(3) | Recordkeeping for applicability determinations. | No | NA |
| § 63.10 (c) | Additional recordkeeping requirements for sources with continuous monitoring systems. | No | NA |
| § 63.10 (d)(1) | General reporting requirements. | Yes- generally applicable | R10 |
| § 63.10 (d)(2) | Report of Performance Test Results | No | NA |
| § 63.10 (d)(3) | Reporting Opacity or VE Observations | No | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|-------------------|--|-----------------------------------|-----------|
| § 63.10 (d)(4) | Progress Reports | No | NA |
| § 63.10 (d)(5) | SSM Reports | No | NA |
| § 63.10 (e) | Additional reporting requirements for sources with continuous monitoring systems. | No | NA |
| § 63.10 (f) | Waiver of recordkeeping or reporting requirements. | Yes, only if requested by source. | None |
| § 63.11(a) | Control device and work practice standards applicability. | No | NA |
| § 63.11(b) | Flares | No | NA |
| § 63.11(c) | Alternative work practice for monitoring equipment for leaks | No | NA |
| § 63.11(d) | The alternative work practice standard for monitoring equipment for leaks additional requirements | No | NA |
| § 63.11(e) | Requirements of owners and operators who choose to use the alternative work practice | No | NA |
| § 63.12 – § 63.16 | State authorities and delegations, agency addresses, incorporations by reference, availability of information and confidentiality, and performance track provisions. | No | NA |

Table 8.6: Conditions from Title 40 CFR Part 63 Subpart DDDDD as applied to EU1

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|---------------------------------|--------------------------------------|-----------------------------|-----------|
| WHAT THIS SUBPART COVERS | | | |
| § 63.7480 | What is the purpose of this subpart? | No | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|--|---|--|--|
| § 63.7485 | Am I subject to this subpart? | EU1 is an industrial boiler located at a major source of HAP and therefore subject to this subpart. Not an applicable requirement per chapter 173-401 WAC. | NA |
| § 63.7490 | What is the affected source of this subpart? | EU1 was constructed in 2003 and has not been reconstructed. It is rated at 40 MMBtu/hr and fires natural gas. Therefore, EU1 is the affected source and is an existing industrial boiler. | NA |
| § 63.7491 | Are any boilers or process heaters not subject to this subpart? | None of these exemptions apply to this unit. | NA |
| § 63.7495 | When do I have to comply with the subpart? | (b) As an existing boiler, EU1 must comply no later than January 31, 2016. (d) Submit notifications as required by § 63.7545. (a),(c),(e)-(i) do not apply. | No ongoing requirements |
| EMISSION LIMITATIONS AND WORK PRACTICE STANDARDS | | | |
| § 63.7499 | What are the subcategories of boilers and process heaters? | By definition, EU1 falls into the following subcategory: (I) Units designed to burn gas 1 fuels. | NA |
| What emission limitations, work practice standards, and operating limits must I meet? | | | |
| § 63.7500 (a) | (1) You must meet each emission limit and work practice standard in Tables 1-3 and 11-13 that apply to your boiler. | Applicable. However, Gas 1 boilers are exempted from Tables 1, 2, and 11-13 through §63.7500(e) | Not an ongoing requirement. Energy assessment required by Table 3 was completed in January 2016. |
| | (2) You must meet each operating limit in Table 4 that applies to your boiler. | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|--|--|--|-----------------------|
| | (3) You must operate the affected sources in a manner consistent with safety and good air pollution control practices for minimizing emissions. | Generally applicable | AR2.7 |
| § 63.7500(b) | EPA may approve use of an alternative to the work practice standards. | Not currently requested. | NA |
| § 63.7500(c)-(d) | Requirements for limited use boilers and boilers with a heat capacity less than 5 MMBtu/hr. | NA | NA |
| § 63.7500(e) | Requirements and exemptions for Gas 1 units | Exempts boiler from Tables 1, 2, 4, and 11-13. | NA |
| § 63.7500(f) | These standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with Table 3 to this subpart. | Not Applicable | NA |
| GENERAL COMPLIANCE REQUIREMENTS | | | |
| § 63.7505(a) | You must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These limits apply to you at all times the affected units are operating except as noted in §63.7500(f). | Generally Applicable | Generally applicable. |
| § 63.7505(b) | [Reserved] | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|---|---|-----------------------------|-----------|
| § 63.7505(c) | Lists the methods which you must use to demonstrate compliance with all applicable emission limits. Allows an alternative fuel analysis for HCl, mercury, or TSM. | NA | NA |
| § 63.7505(d) | If you demonstrate compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits or with a CEMS or COMS, you must develop a site-specific monitoring plan for the use of any CEMs, COMS, or CPMS according to this section. | NA | NA |
| TESTING, FUEL ANALYSES, AND INITIAL COMPLIANCE REQUIREMENTS | | | |
| <i>What are my initial compliance requirements and by what date must I conduct them?</i> | | | |
| § 63.7510(a) | If you are required or elect to demonstrate compliance through performance testing, your initial compliance requirements are: | | |
| | (1) Conduct performance tests according to § 63.7520 and Table 5. | NA | NA |
| | (2) Conduct a fuel analysis for each type of fuel burned in your boiler according to § 63.7521 and Table 6. | NA | NA |
| | (3) Establish operating limits according to § 63.7530 and Table 7. | NA | NA |
| | (4) Conduct CMS performance evaluations according to § 63.7525. | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|------------------|--|---|-----------|
| § 63.7510(b) | Requirements for boilers electing to show compliance with HCl, mercury, or TSM emission limits through fuel analysis. | NA | NA |
| § 63.7510(c) | Initial compliance demonstration requirements for boilers subject to a CO limit. | NA | NA |
| § 63.7510(d) | Initial compliance demonstration for PM limit is to conduct a performance test according to § 63.7520 and Table 5. | NA | NA |
| § 63.7510(e) | Requires Initial compliance demonstration as required above by 180 days after the compliance date; initial tune-up by following procedures in §62.7540(a)(10)(i) through (vi) and one-time energy assessment specified in Table 3 no later than the compliance date. | Compliance date for existing sources is 1/31/16. Therefore, the Initial compliance demonstration would be due no later than 7/29/16. The energy assessment was conducted September 22, 2014 and the energy assessment report finalized January 27, 2016. The tune-up was conducted April 26, 2016, both prior to their respective due date. | NA |
| § 63.7510(f)-(g) | Compliance dates for new or reconstructed sources. | The boiler is considered an existing source with respect to this subpart. | NA |
| § 63.7510(h) | Compliance date for sources that ceased burning solid waste. | Not applicable. The boiler burns natural gas/ Gas 1 as its primary fuel. | NA |
| § 63.7510(i) | Compliance date for certain EGUs. | Not applicable. The boiler is not an EGU. | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|---|--|---|-----------|
| § 63.7510(j) | Compliance date for existing affected sources that were not operational between the effective date and the compliance date of the rule. | Not applicable. The boiler was operational during that time. | NA |
| <i>When must I conduct subsequent performance tests, fuel analyses, or tune-ups?</i> | | | |
| § 63.7515(a) | All applicable performance tests must be conducted on an annual basis. Annual performance test must be completed no more than 13 months after the previous performance test. | NA | NA |
| § 63.7515(b) – (c) | Allows alternative testing schedule if 2 consecutive performance tests show emissions at or below 75% of the emission limit. | NA | NA |
| § 63.7515(d) | Applicable tune-up work practice standards must be conducted on an annual or 5-year basis. Each annual tune-up must be not more than 13 months after the previous tune-up. | §63.7540(a)(10)(i-vi) applies. Must conduct tune up on annual schedule. | AR2.6 |
| § 63.7515(e) | Requirement to conduct fuel analyses monthly if you demonstrate compliance with the mercury, HCl or TSM based on fuel analysis. | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|--|---|-----------------------------|-----------|
| § 63.7515(f) | Requirement to report results of performance test and fuel analyses within 60 days after the completion of the performance test. The report shall include verification that operating limits have not changed or documentation of revised operating limits. | NA | NA |
| § 63.7515(g) | Compliance demonstration due dates for facilities that shut down temporarily. | NA | NA |
| § 63.7515(h) | Requirement for boiler in light liquid subcategory. | NA | NA |
| § 63.7515(i) | If you use a CO CEMs to show compliance with the alternative CO CEMS emission standard, you are not requirement to conduct a CO performance test and are not subject to the oxygen concentration operating limit. | NA | NA |
| <i>What stack tests and procedures must I use?</i> | | | |
| § 63.7520 | Requirements for stack tests. | NA | NA |
| <i>What fuel analyses, fuel specification, and procedures must I use?</i> | | | |
| § 63.7521 | Requirements for how to conduct fuel analyses. | NA | NA |
| <i>Can I use emissions averaging to comply with the subpart?</i> | | | |
| § 63.7522 | How emissions averaging can be used to comply with this subpart if you have more than one existing boiler in any subcategory. | NA | NA |
| <i>What are my monitoring, installation, operation, and maintenance requirements?</i> | | | |
| § 63.7525(a) | Requirements for an oxygen analyzer system if subject to a CO emission limit OR CO/O2 CEMS. | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|---|--|-----------------------------|-----------|
| § 63.7525(b) | Requirement for PM CPMS for units designed to burn coal/solid fossil fuel or heavy liquid and has an average annual heat input > 250 MMBtu/hr. | NA | NA |
| § 63.7525(c) | COMS requirement if you have an applicable opacity limit and are not otherwise required or elect to have a PM CPMS, PM CEMS, or bag leak detection system. | NA | NA |
| § 63.7525(d) | Requirements if you have an operating limit that requires the use of a CMS other than a PM CPMS or COMS. | NA | NA |
| § 63.7525(e) – (i) | Requirements for monitors used on control devices for operating limits. | NA | NA |
| § 63.7525(j) | Requirements if you are not required to use a PM CPMS and elect to use a fabric filter bag leak detection system. | NA | NA |
| § 63.7525(k) | Requirement for limited use boilers. | NA | NA |
| § 63.7525(l) | Requirements for using mercury or HCl CEMS for compliance. | NA | NA |
| § 63.7525(m) | Requirements for boilers subject to HCl emission limit that have an acid gas wet scrubber or dry sorbent injection control technology and use a SO2 CEMS. | NA | NA |
| <i>How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?</i> | | | |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|------------------------------------|--|-----------------------------|-----------|
| § 63.7530(a) | Requirement to demonstrate initial compliance with each emission limit that applies to you by conducting initial performance tests and fuel analyses, establishing operating limits, and install, operate, and maintain all applicable CMS. | NA | NA |
| § 63.7530(b), § 63.7530(b) (1)-(3) | If you demonstrate compliance through performance testing, requirement to establish site-specific operating limits in Table 4 that applies to you according to requirements in § 63.7520, Table 7, and (b)(4) of this section. Also requires fuel analysis and establishing maximum fuel pollutant input levels. | NA | NA |
| | (1)-(3) Fuel analysis requirements referenced in § 63.7530(b). | NA | NA |
| § 63.7530(b)(4) | Requirement to establish parameter operating limits according to (i) – (ix) below. You are not required to use operating parameter limits when you are using a CEMS to demonstrate compliance. | | |
| | (i) Requirements for a wet acid gas scrubber. | NA | NA |
| | (ii) Requirements for particulate control device for which you use a CPMS. | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|--------------|---|---------------------------------|--------------------------|
| | (iii)-(vi) Requirements for ESP with a wet scrubber, dry scrubber, activated carbon injection, and baghouse. | NA | NA |
| | (vii) Requirements for a minimum oxygen level | NA | NA |
| | (viii) Operating limit requirement for boilers that demonstrate continuous compliance with the HCl emission limit using a SO2 CEMS. | NA | NA |
| § 63.7530(c) | Requirements if you elect to demonstrate compliance with an applicable emission limit through fuel analysis. | NA | NA |
| § 63.7530(d) | Reserved | NA | NA |
| § 63.7530(e) | Requirement to submit signed certification with the NOCS that the energy assessment was completed. | Completed in 2016. Not ongoing. | No ongoing requirements. |
| § 63.7530(f) | Requirement to submit the NOCS containing the results of the initial compliance demonstration. | Completed in 2016. Not ongoing. | No ongoing requirements. |
| § 63.7530(g) | Requirements if you elect to demonstrate that a gaseous fuel meets the specifications of another gas 1 fuel. | NA | NA |
| § 63.7530(h) | Requirement to meet the work practice standards in Table 3 if you are subject to an emission limit in Table 1, 2, 11, 12, or 13. | NA | NA |
| § 63.7530(i) | Requirements if you opt to comply with alternative SO2 CEMS operating limit. | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|--|---|-----------------------------|-----------|
| <i>Can I use efficiency credits earned from implementation of energy conservation measures to comply with this subpart?</i> | | | |
| § 63.7533 | Requirements if you elect to comply with the alternative equivalent output-based emission limits and you want to take credit for implementing energy conservation measures. | NA | NA |
| <i>Is there a minimum amount of monitoring data I must obtain?</i> | | | |
| § 63.7535(a) | Requirement to monitor and collect data according to this section and the site-specific monitoring plan (§ 63.7505(d)) | NA | NA |
| § 63.7535(b) | Requirement to operate the monitoring system and collect data at all times the boiler is operating and compliance is required, with exceptions. | NA | NA |
| § 63.7535(c)-(d) | Requirements on recording monitoring system malfunctions, etc and what data must be used in assessing compliance. | NA | NA |
| <i>How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?</i> | | | |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|-----------------|--|-----------------------------|-----------|
| § 63.7540(a) | Requirement to demonstrate continuous compliance with each emissions limit in Tables 1 and 2 or 11 through 13 of this subpart, the work practice standards in Table 3, and the operating limits in Table 4 that applies to you according to the methods in Table 8 and paragraphs (a)(1) through (19) of this section. | Applicable | AR2.5 |
| § 63.7540(a)(1) | Requirement to operate within the operating limits established during the initial compliance demonstration. Operation outside these limits is a deviation except during performance tests. | NA | NA |
| § 63.7540(a)(2) | Requirement to keep records of the type and amount of all fuels burned in the boiler or process heater during the reporting period. | NA | NA |
| § 63.7540(a)(3) | Requirements if you demonstrate compliance with an applicable HCl emission limit through fuel analysis for a solid or liquid fuel and you plan to burn a new type of solid or liquid fuel. | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|--------------------|---|-----------------------------|-----------|
| § 63.7540(a)(4) | Requirements if you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of solid or liquid fuel. | NA | NA |
| § 63.7540(a)(5) | Requirements if you demonstrate compliance with an applicable mercury emission limit through fuel analysis and you plan to burn a new type of solid or liquid fuel. | NA | NA |
| § 63.7540(a)(6) | Requirements if you demonstrate compliance with an applicable mercury emission limit through performance testing and you plan to burn a new type of solid or liquid fuel. | NA | NA |
| § 63.7540(a)(7) | Requirements if your unit is controlled by a fabric filter. | NA | NA |
| § 63.7540(a)(8) | Requirements to demonstrate compliance with the applicable alterative CO CEMS emission limit. | NA | NA |
| § 63.7540(a)(9) | Requirements if you use a PM CPMS or PM CEMS. | NA | NA |
| § 63.7540(a)(10) | Annual tune-up requirement for boilers with a heat input capacity of 10 MMBtu/hr or greater with some exceptions. | Applicable. | AR2.5 |
| §63.7540(a)(10)(i) | Requirements that specify what is included in a tune-up. | Applicable. | AR2.5 |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|----------------------|---|-----------------------------|-----------|
| §63.7540(a)(10)(ii) | Requirements that specify what is included in a tune-up. | Applicable | AR2.5 |
| §63.7540(a)(10)(iii) | Requirements that specify what is included in a tune-up. | Applicable | AR2.5 |
| §63.7540(a)(10)(iv) | Requirements that specify what is included in a tune-up. | Applicable | AR2.5 |
| §63.7540(a)(10)(v) | Requirements that specify what is included in a tune-up. | Applicable | AR2.5 |
| §63.7540(a)(10)(vi) | Requirements that specify what is included in a tune-up report. | Applicable | AR2.5 |
| § 63.7540(a)(11) | Biennial tune-up requirement for units less than 10 MMBtu/hr. | NA | NA |
| § 63.7540(a)(12) | Requirement for units with continuous oxygen trim systems (and others) to conduct a tune-up per § 63.7540(a)(10)(i)-(vi) every 5 years. | NA | NA |
| § 63.7540(a)(13) | Allows delay of tune-up if the unit is not operating. | Applicable | AR2.6 |
| § 63.7540(a)(14) | Requirement if you are using a CEMS measuring mercury emissions. | NA | NA |
| § 63.7540(a)(15) | Requirement if you are using a CEMS measuring HCl emissions. | NA | NA |
| § 63.7540(a)(16) | Requirements if you demonstrate compliance with an applicable TSM emission limit through performance testing and you plan to burn a new type of solid or liquid fuel. | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|---|---|-----------------------------|-----------|
| § 63.7540(a)(17) | Requirements if you demonstrate compliance with an applicable TSM emission limit through fuel analysis and you plan to burn a new type of solid or liquid fuel. | NA | NA |
| § 63.7540(a)(18) | Requirements if you use a PM CPMS. | NA | NA |
| § 63.7540(a)(19) | Requirements if you use a PM CEMS. | NA | NA |
| § 63.7540(b) | Requirement to report each instance in which you did not meet each emission limit and operating limit that apply to you. | NA | NA |
| § 63.7540(c) | Requirement for mercury for units designed to burn gas 1 subcategory. | NA | NA |
| § 63.7540(d) | Requirement to meet work practice standards according to items 5 and 6 of Table 3 for startup and shutdown. | NA | NA |
| <i>How do I demonstrate continuous compliance under the emissions averaging provision?</i> | | | |
| § 63.7541 | Requirements for units under the emissions averaging options in § 63.7522. | NA | NA |
| <i>What notifications must I submit and when?</i> | | | |
| § 63.7545(a) | You must submit to the Administrator all notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified. | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|--|--|--|--------------------------|
| § 63.7545(b) | Requires affected sources with a startup date prior to January 31, 2013 to submit an Initial Notification not later than May 31, 2013. | Applicable. Not an ongoing requirement. | No ongoing requirements. |
| § 63.7545(c) | Startup notification for new or reconstructed affected sources. | Not applicable | NA |
| § 63.7545(d) | Requirement to submit a Notice of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin. | NA | NA |
| § 63.7545(e) | Requirement to submit a Notice of Compliance Status (NOCS). | One-time requirement met in 2016. Not ongoing. | Not ongoing. |
| § 63.7545(f) | Requirement to submit a notification of alternative fuel use if during a period of natural gas curtailment or supply interruption, you intend to use a fuel other than those listed. | Applicable if triggered. However, facility is not permitted to use another fuel type and would need to apply for a NOC permit before they could use another fuel type. | NA |
| § 63.7545(g) | Requirement to submit a notification if you intend to commence solid waste. | Applicable if triggered. However, facility is not permitted to use another fuel type and would need to apply for a NOC permit before they could use another fuel type. | NA |
| <i>What reports must I submit and when?</i> | | | |
| § 63.7550(a) | You must submit each report in Table 9 that applies to you. (Compliance Report) | Applicable. | R10 |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|------------------|--|-----------------------------|-----------|
| § 63.7550(b) | Requirement to submit each report according to paragraph (h) by the date in Table 9 and according to the requirements in paragraphs (b)(1) through (4). Includes a schedule (b)(5) for those not subject to any emission limits or operating limits. | Applicable | R10 |
| § 63.7550(c) | Requirements for the content of compliance report. | Applicable | R10 |
| § 63.7550(d) | Additional information required in compliance report for each deviation of an emission limit of operating limit at unit where you are not using CMS. | NA | NA |
| § 63.7550(e) | Additional information required in compliance report for each deviation of an emission limit of operating limit at unit where you are using CMS. | NA | NA |
| § 63.7550(f)-(g) | [Reserved] | Not applicable | NA |
| § 63.7550(h)(1) | Requires submittal of performance test results to EPA's WebFIRE database using CEDRI within 60 days of the source test. | NA | NA |
| § 63.7550(h)(2) | Requires submittal of CEMS performance evaluation RATA data to CEDRI within 60 days of the source test within 60 days of the test. | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|---|---|-----------------------------|-----------|
| § 63.7550(h)(3) | Requires submittal of all reports in Table 9 (compliance report) electronically using CEDRI. | NA | R3 R10 |
| <i>What records must I keep?</i> | | | |
| § 63.7555(a) | You must keep records of a copy of each notification and report that you submitted to comply with this subpart including supporting documentation. Records of performance tests, fuel analyses or other compliance demonstrations and performance demonstrations. | Applicable | RK13 |
| § 63.7555(b) | Requirements for records for CEMS, COMS, and continuous monitoring systems. | NA | NA |
| § 63.7555(c) | Requirement to keep records required in Table 8. | NA | NA |
| § 63.7555(d) | Requirement to keep records in paragraphs (d)(1) through (11) for units subject to an emission limit. | NA | NA |
| § 63.7555(d)(1) | Records of monthly fuel use. | NA | NA |
| § 63.7555(d)(2) | Required records for non-hazardous secondary materials. | NA | NA |
| § 63.7555(d)(3) | Copy of calculations and supporting documentation of maximum chlorine fuel input. | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|------------------|---|-----------------------------|-----------|
| § 63.7555(d)(4) | Records of calculations and supporting documentation of maximum chlorine fuel input that were done to demonstrate continuous compliance with the HCl emission limit. | NA | NA |
| § 63.7555(d)(5) | Records of calculations and supporting documentation of maximum mercury fuel input that were done to demonstrate continuous compliance with the mercury emission limit. | NA | NA |
| § 63.7555(d)(6) | Required records if you choose to stack test less frequently than annually per § 63.7515(b). | NA | NA |
| § 63.7555(d)(7) | Records of malfunctions. | NA | NA |
| § 63.7555(d)(8) | Records of actions taken during malfunction to minimize emissions. | NA | NA |
| § 63.7555(d)(9) | Records of calculations and supporting documentation of maximum TSM fuel input that were done to demonstrate continuous compliance with the TSM emission limit. | NA | NA |
| § 63.7555(d)(10) | Requirement to maintain records of the calendar date, time occurrence and duration of each startup and shutdown. | NA | NA |
| § 63.7555(d)(11) | Requirement to maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown. | NA | NA |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|---|--|--|-----------|
| § 63.7555(d)(12) | Requirements for steam records if operator choose to rely on paragraph (2) of the definition of “startup” in §63.7575. | NA | NA |
| § 63.7555(e) | Requirements for units under the emissions averaging options in § 63.7522. | NA | NA |
| § 63.7555(f) | Requirements if you elect to use efficiency credits from energy conservation measures to demonstrate compliance according to § 63.7533. | NA | NA |
| § 63.7555(g) | Requirement for mercury for units designed to burn gas 1 subcategory. | Not applicable. Unit not required to conduct fuel analyses. | NA |
| § 63.7555(h) | Requirement for units in the unit designed to burn gas 1 subcategory. | Applicable if triggered. However, facility is not permitted to use another fuel type and would need to apply for a NOC permit before they could use another fuel type. | NA |
| <i>In what form and how long must I keep my records?</i> | | | |
| § 63.7560(a) | Requirement to keep records in a form suitable and readily available for expeditious review according to §63.10(b)(1). | Applicable | RK13 |
| § 63.7560(b) | Requirement to keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. | Applicable | RK13 |

| CITATION | BRIEF DESCRIPTION | APPLICABILITY DETERMINATION | CONDITION |
|---|--|---|-----------|
| § 63.7560(c) | Requirement to keep record on site or accessible from onsite for at least 2 years. Records may be kept off site for the remaining 3 years. | Applicable | RK13 |
| <i>What parts of the General Provisions apply to me?</i> | | | |
| § 63.7565 | Table 10 contains applicability of General Provisions. | Applicability – no additional requirements. | NA |
| <i>Who implements and enforces this subpart?</i> | | | |
| § 63.7570 | Details what agencies has implementation and enforcement authority over this subpart and what authorities are not delegated. | No applicable requirements | NA |
| <i>What definitions apply to this subpart?</i> | | | |
| § 63.7575 | Lists definitions for terms used in this subpart. | No applicable requirements | NA |

8.5 Accidental Release Prevention Program - Not Applicable

Section 112r of the Clean Air Act Amendments of 1990 require facilities using substances that pose the greatest risk of harm from accidental releases to develop and implement Risk Management Programs including:

- Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases scenarios;
- Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and
- Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g., the fire department) should an accident occur.

Section 112r applies to stationary sources that manufacture, use, store, or otherwise handle more than a threshold quantity of a listed regulated substance in a process. Because SPI Lumber does not store or use at the Facility any of the regulated substances listed in Section 112(r) of the Federal Clean Air Act above a threshold quantity, Section 112(r) requirements do not apply.

8.6 Prevention of Significant Deterioration (PSD)

The goal of the Prevention of Significant Deterioration (PSD) program is to ensure that construction of new major stationary sources and major modifications will not significantly degrade areas with pre-existing good air quality. Though the SPI Lumber Mill is a major source under the State’s PSD program, SPI Lumber has not triggered a PSD review to date. The Department of Ecology, the PSD authority in Washington State, has determined that PSD review was not required for the lumber mill. Therefore, the mill was not required to obtain a PSD permit.

8.7 Compliance Assurance Monitoring Rule

Applicability of the Compliance Assurance Monitoring (CAM) Rule under 40 CFR § 64.2(a) is determined on a pollutant-by-pollutant basis. The CAM Rule applies to a pollutant subject to an emissions limitation or standard when a control device is used to meet the limitation or standard and potential, pre-control device emissions are greater than a major source threshold. The CAM rule exempts backup utility units. Also, the CAM Rule does not apply to emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act, and emission limitations or standards for which a part 70 or 71 permit specifies a continuous compliance determination method, as defined in 40 CFR § 64.1. There are no EU’s at the Facility for which the CAM rule applies.

TABLE 8.7. CAM Applicability

| Emission Unit ID# | Control Device | Limit/Standard | Proposed after 11/15/1990? | Major, Pre-controlled Emissions | CAM Applicable? |
|---|----------------|---|----------------------------|---------------------------------|-----------------|
| EU1 Boiler | No | N/A – No control device is used to meet emissions limits and standards. | | | |
| EU2 Lumber Dry Kilns | No | N/A – No control device is used to meet emissions limits and standards. | | | |
| EU3 Planer Mill Pneumatic Dust Collection System | Yes | WAC 173-400-060 0.10 gr/dscf PM | No | 54 tpy PM | No |
| EU4 Spray Application System for Wood Brighteners and Fungicides | No | N/A – No control device is used to meet emissions limits and standards. | | | |
| EU5 Diesel Generator | No | N/A – No control device is used to meet emissions limits and standards. | | | |

| | | |
|------------------------------------|--|--|
| Powering Emergency Fire Pump | | |
|------------------------------------|--|--|

8.8 State Greenhouse Gas (GHG) Reporting Rule

According to WAC 173-441-030(1), the State GHG Reporting Rule applies to industrial facilities that emit at least 10,000 metric tons per year of GHG in terms of carbon dioxide equivalents, including carbon dioxide from biofuels. WAC 173-441-020 defines a “facility” as any physical property, plant, building, structure, source, or stationary equipment located on one or more contiguous or adjacent properties in actual physical contact or separated solely by a public roadway or other public right of way and under common ownership or common control, that emits or may emit any greenhouse gas. Even though the lumbermill and cogeneration facilities are considered separate for Title V permitting purposes, they are considered one facility for the state GHG reporting rule. GHG emissions from the cogeneration portion of the facility alone are high enough to trigger GHG reporting. Therefore, the State GHG Reporting Rule applies to all portions of the facility and the applicable requirements pursuant to Chapter 173-441 WAC are included as Condition R8 in the AOP.

8.9 Federal Mandatory Greenhouse Gas Reporting Rule

The Federal Mandatory Greenhouse Gas Reporting Rules under 40 CFR Part 98 establishes requirements for reporting emissions of GHGs. However, these requirements are not pursuant to either the state or federal Clean Air Acts and, therefore, are not “Applicable Requirements” for purposes of Title V AOPs.

8.10 Control Equipment Monitoring

Pollution control equipment at the SPI Lumber Facility has associated periodic monitoring as required to assure compliance. The operating range and origin of each range is described in Table 8.9 below.

Table 8.9 Control Equipment Monitoring Ranges

| EU | Control Equipment | Operating Range | Operating Range Origin |
|----|----------------------|-----------------------------|-----------------------------|
| 3 | Planer Mill Baghouse | 0.5 - 5 inches water column | Manufacturer Recommendation |

9.0 TESTING

9.1 Required Testing

There are no local, state, or federal requirements nor permit conditions for the equipment or processes located at SPI Lumber’s Facility requiring periodic testing. However, ORCAA maintains

the authority to require testing through ORCAA Rule 1.5(i) which states, “*in order to demonstrate compliance with emission standards, the Control Officer shall have the authority to require a source to be tested, either by the Agency personnel or by the owner, using source test procedures approved by the Agency. The owner shall be given reasonable advance notice of the requirement of the test.*”

9.2 Testing Results

The SPI Lumber Facility has never conducting testing. There are no local, state, or federal requirements nor permit conditions for the equipment or processes located at SPI Lumber’s Facility requiring periodic testing and ORCAA has never had cause to require testing at the SPI Lumber Facility.

10.0 PERMIT CONDITIONS

10.1 Permit Administration

Permit administrative conditions (A1-A15) include conditions specifying how the AOP is managed according to the State AOP program under Chapter 173-401 WAC and conditions having implications on assuring compliance with all other conditions in the AOP. Many of the permit administrative conditions are “standard terms and conditions” and required to be in the AOP per either Chapter 173-401 WAC or per federal requirements for AOPs.

The origin of each permit administrative condition is stated at the end of each condition. Authority to include permit administrative conditions comes from primarily from WAC 173-401-600(1)(b), which specifies AOPs contain requirements from the Washington Clean Air Act (Chapter 70A.15 RCW) and rules implementing that chapter (Washington’s AOP program is pursuant to RCW 70A.15.2270, which is under the Washington Clean Air Act).

Permit administrative conditions specify terms of the AOP such as the permit duration, expiration, renewal and revision requirements. They also explain the “Permit Shield,” extent of AOP enforceability and how the AOP can be revoked or re-opened for cause. They are essential to the proper functioning of the AOP under the State of Washington Program. Because permit administrative conditions do not include any applicable emissions limitations or operational standards, monitoring is not applicable. However, general recordkeeping and reporting requirements apply. Also, compliance with permit administrative conditions must be certified annually.

10.2 General Terms and Conditions

General terms and conditions (G1 – G23) cover general compliance and permitting requirements. These conditions are categorized as General Terms and Conditions in the permit because they either have broad implications on multiple conditions in the AOP, or are entire

programs that are applicable if triggered, such as the Stratospheric Ozone Protection program. Authority for each condition varies depending on whether the applicable requirement originated from a state or federal regulation. Several general terms or conditions are discussed in detail below.

10.3 Prohibited Activities

Prohibited activities conditions (PA1-PA7) cover general prohibitions. These conditions are categorized as Prohibited Activities in the permit because they identify broad prohibitions that apply to Title V facilities at all times, such as prohibition of concealment or masking of emissions. There are no specific monitoring requirements for these prohibited activities because prohibitions generally do not involve applicable emission limits or operational standards for which testing and/or monitoring are needed. However, compliance with the prohibited activities conditions must be certified annually. Authority for each condition varies depending on whether the prohibited activity originated from a state or federal regulation.

10.4 Applicable Requirements

Applicable requirements (AR1-AR6.4) include all emissions limits and standards, work practice standards and operating requirements for emissions units that apply at the SPI Lumber Facility and are grouped as follows:

- AR1 (AR1.1-1.13) covers general applicable requirements that apply facility-wide to all emissions units at the SPI Lumber Facility.
- AR2 (AR2.1-2.7) includes requirements that apply specifically to the natural gas-fired boiler (EU1).
- AR3 (AR3.1-3.4) includes requirements that apply specifically to the lumber dry kilns (EU2).
- AR4 (AR4.1-4.5) includes requirements that apply specifically to the planer mill pneumatic dust collection system (EU3).
- AR5 (AR5.1-5.5) includes requirements that apply specifically to the spray coating system (EU4).
- AR6 (AR6.1-6.4) includes requirements that apply specifically to the diesel engine powering the emergency fire pump (EU5).

10.5 Monitoring Terms and Conditions

Applicable monitoring terms and conditions (M1 – M9) include all monitoring required under the permit. The overarching requirement for Title V permits is that they contain monitoring sufficient for assuring compliance. This is codified in the Washington Title V rule under WAC 173-401-630(1) which states:

Consistent with WAC 173-401-615, all chapter 401 permits shall contain compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit.

To meet this requirement for Title V permits, monitoring provisions may be added to a permit when either the applicable limit or standard does not specify monitoring, or when the specified monitoring is not sufficient to assure compliance. Therefore, there are three different categories of monitoring included in a Title V permit, each under a specific authority:

- **Applicable Monitoring.** All monitoring specified by an applicable requirement needs to be included in the permit per WAC 173-401-615(1)(a). When this is the case, WAC 173-401-615(1)(a) is cited as the authority for including the monitoring and the underlying applicable requirement is cited as the “Origin” of the monitoring.
- **Gap-filling Monitoring.** When an applicable requirement (emissions limit, standard or work practice standard) does not specify monitoring, monitoring sufficient to assure compliance must be added to the permit. This category of monitoring is referred to by EPA as “gap-filling monitoring.” The authority to include gap-filling monitoring comes from WAC 173-401-615(1)(b).
- **Sufficiency Monitoring.** When monitoring is specified by an applicable requirement but it does not meet the Title V requirement of assuring compliance with the applicable requirement, the applicable monitoring needs to be augmented. This category of monitoring is referred to by EPA as “Sufficiency Monitoring.” The authority to include sufficiency monitoring provisions to a permit comes from WAC 173-401-630(1). The origin for sufficiency monitoring remains the underlying applicable requirement itself.

10.6 General Recordkeeping Requirements

Applicable recordkeeping terms and conditions (RK1 – RK13) include all required recordkeeping requirements for Title V AOPs as required under WAC 173-401-615(2). Origin and authority are stated at the end of each condition.

10.7 Reporting

Applicable reporting terms and conditions (R1 – R10) include all required reporting requirements for Title V AOPs as required under WAC 173-401-615(32). Origin and authority are stated at the end of each condition.

11. PUBLIC INVOLVEMENT AND PERMIT REVIEW BY EPA AND AFFECTED STATES

11.1 Pre-draft Review

ORCAA’s standard AOP procedures include forwarding pre-draft versions of the AOP and TSD to the source for fact-checking before issuing a draft AOP and public notice. This step provides an opportunity to for the source owner to make sure the AOP and TSD are factually correct and

free of significant errors. It also provides an opportunity to confirm compliance and monitoring options chosen by the source. Corrections made at this point in the Title V process lessen the likelihood of significant corrections later on in the permit process and the need to re-issue public notice on a draft permit due to a significant change in the draft permit.

For the SPI Lumber AOP renewal, ORCAA forwarded preliminary drafts of the AOP and TSD to SPI Lumber for fact checking on December 13, 2021, requesting comments back by January 13, 2022. ORCAA staff called SPI Lumber's Division Manager, on January 18, 2022, asking if SPI Lumber had any comments on the draft AOP and TSD. SPI Lumber stated they had no comments, and that ORCAA should move forward with the permitting process.

11.2 Public and Affected States Noticing

After fact-checking and proofing, ORCAA issued the draft AOP, TSD and public/affected states notice on January 27, 2022. Public/affected states notice included:

- Posting the draft AOP, TSD and public notice on ORCAA's website
- Press release
- Notice in the Washington Permit Register
- Notice emailed to affected states (List of affected states attached)
- Notice emailed to interested persons list for SPI Lumber, EPA, local City and County planning departments, ORCAA Board, and local environmental organizations.

The public/affected states notice (attached) included instructions on how to make comment and request a public hearing. The comment period remained open for the minimum 30-days and ended February 28, 2022

11.3 Public Hearing

Any person, interested governmental agency, group, or the permittee may request a public hearing within the comment period. ORCAA may, at its discretion, hold a public hearing if it determines significant public interest exists or otherwise finds cause to do so. ORCAA will provide at least 30 days prior notice of any hearing.

ORCAA did not receive a request for a public hearing during the comment period. Lacking significant public interest or cause, ORCAA did not hold a public hearing for this permit renewal.

11.4 ORCAA Responses to Comments on Draft AOP

ORCAA received comments from the public and addressed them as follows:

On February 5, 2022, ORCAA received a comment from a local citizens group, Friends of Grays Harbor (FOGH).

Friends of Grays Harbor Comments (via email received 02/05/2022)

Re: Air Operating Permit (AOP) and Associated Technical Support Document (TSD) for the Sierra Pacific Industries – Aberdeen Lumber Mill (SPI) (dated 02/04/2022)

Dear Mr. Manley and reviewers:

Thank you for this opportunity to comment on the above referenced matter. We recognize that this is a complex balance and hope our input will be of assistance in making decisions that will benefit the environment, visitors to our area and the residents of lower Chehalis WRIA. We incorporate by reference those comments made by Twin Harbors Waterkeepers.

FOGH is a broad-based 100% volunteer tax-exempt 501(c)(3) citizens group made up of crabbers, fishers, oyster growers and caring citizens. The mission of FOGH is to foster and promote the economic, biological, and social uniqueness of Washington's estuaries and ocean coastal environments. The goal of FOGH is to protect the natural environment, human health and safety in Grays Harbor and vicinity through science, advocacy, law, activism and empowerment.

We understand that the Olympic Region Clean Air Agency (ORCAA) has changed its format in the way that the Draft Permit is described as opposed to the Permit that is now in place. This makes it more of a challenge to compare the two permits and to evaluate whether the Draft permit holds a status quo, improves air quality, or allows backsliding to further unacceptable levels of pollution.

Outdoor air quality is not usually under the control of the individual, so it is important that we do our part to minimizing pollution to it. We all have to breathe –23,000 times a day – the air we are provided. Every breath we take contains a gaseous soup of particles that are afloat in it. Depending on the surrounding contributors, that soup may contain argon, carbon dioxide, ozone, methane, methanol, formaldehyde, sulfur dioxide, VOCs, HAPs, nitrous oxide...the list goes on and on.

This potentially toxic soup can be exacerbated by cumulative effects of similarly polluting industries in nearby locations. The nearby Cosmo Specialty Fiber Mill shares the prevailing winds of the Sierra Pacific Lumber Mill. Unfortunately, the official monitoring station for both industries is located Northwest of the physical plants and the prevailing winds blow South Southwest. Based on the location of the monitor, it is doubtful that the air of Sierra Pacific plant actually gets measured. (see attached map, next page)

Accurate measurements of air quality are critically important to people with respiratory issues, people with diabetes, older adults, children, and pregnant women. All of whom are more likely to be affected by unhealthy levels of particle pollution. A 2015 study in the European Review for Medical and Pharmacological Sciences (<https://www.europeanreview.org/article/8346>) concluded that, "...Air pollution is a leading cause of insulin resistance and incidence of type 2 diabetes mellitus..."

We compared with great dismay the Draft Permit and the Existing permits of the Lumber Dry Kiln. It appears that the new Draft Permit, allows the following increases in pollutant components: We can see from this, that in several parameters there is an increase in the allowable pollutants, for example

*50% increase in VOCs
57% increase in HAPs*

*1 % increase in Acrolein
23% increase in Formaldehyde
32% increase in Methanol.*

When we compare the actual emission report for 2020, compared to those emitted in 2014, we note that actual emissions have increased over the time period, indicating a probable degradation of equipment and/or process resulting in deteriorating facilities.

We hope that ORCAA will recognize these public health concerns and reconsider the allowable pollutants, taking into account the cumulative effects of other industrial operations in the adjacent area.

Thank you in advance for your consideration of these concerns.

ORCAA Response

Hello, Arthur. Thank you for taking time to review and comment on the draft Air Operating Permit (AOP) and associated Technical Support Document (TSD) for the Sierra Pacific Industries Aberdeen Division Lumber Mill (SPI Lumber). ORCAA staff reviewed your comments and have the following responses.

ORCAA's mission is to promote air quality and take actions that protect the health and welfare of people and the natural environment in the agency's six-county jurisdiction and that all individuals in ORCAA's jurisdiction—especially children and the elderly—can live, work, and play in a healthful and clean environment, free from the harmful and destructive effects of air pollution.

New and modified stationary sources of air pollution are required to obtain a Notice of Construction (NOC) permit, and in doing so, undergo New Source Review (NSR). It is within the NSR permitting process that emissions increases are reviewed and approved. In contrast, Air Operating Permits (AOPs) do not grant approval for emissions increases, but rather summarize and tie together a Facility's applicable State, Local, Federal, and NOC permit requirements in one centralized location.

SPI Lumber already obtained approval for the potential to emit (PTE) documented in the draft TSD you reviewed. The increases you point out were reviewed and approved in 2021 under 20NOC1449. This was a public process with an opportunity for commenting and public hearing. ORCAA's Final Determination to approve, public notice, and health impact assessment for 20NOC1449 are attached for your records.

The increases in PTE approved under 20NOC1449 result from SPI Lumber replacing their aging kilns with brand new high efficiency kilns and higher approved lumber throughput rates for the kilns. During the NSR process, ORCAA evaluated the air quality implications of the higher lumber throughput and concluded that compliance with applicable air requirements could be maintained and that air quality was protected. Before final approval of 20NOC1449, ORCAA's preliminary determination underwent a 30-day public notice and comment period from Dec. 8,

2020 through Jan. 8, 2021. This was the opportunity to comment on the increases you point out in your comments on the draft AOP.

Washington State has some of the most protective air quality regulations in the country. The kiln replacement project and increase in kiln throughput triggered a Tier II analysis under the requirements of Chapter 173-460 WAC. ORCAA staff and a toxicologist with the Washington State Department of Ecology reviewed worst-case potential emissions impacts associated with the project and determined emissions increases will not violate any ambient air quality standards and are sufficiently low to protect public health.

I hope this addresses your concerns. ORCAA will continue to strive to ensure our mission and goal of clean air for our community.

11.5 Review of Proposed AOP by EPA

ORCAA submitted the proposed AOP and TSD to the U.S. EPA, Region 10 for an opportunity to review on March 8, 2022. EPA's 45-day review period ended April 22, 2022. ORCAA did not receive any comments and decided to move forward with the AOP renewal.

ATTACHMENTS

Attachment 1: Data Summary

Name: Sierra Pacific Industries - Aberdeen Lumber Mill

Physical address: 301 Hagara Street, Aberdeen, WA 98520

County: Grays Harbor

Primary Contact: Ron Burch, Division Manager

Contact phone number: (360) 533-8263

Air Operation Permit #: 21AOP1491

EIS #: 12601611

FRS #: 110013396547

ICIS-AIR #: WAORC0005302700028

Type of ownership: Private

Operating status: Operating

NAICS code: 321113

SIC code(s): 2421

Air program(s): NSPS Part 60, MACT Part 63, SIP, Title V

Subparts:

- 40 CFR Part 60, Subpart Dc

- 40 CFR Part 60, Subpart A

- 40 CFR Part 63 Subpart DDDD

- 40 CFR Part 63 Subpart ZZZZ

- 40 CFR Part 63, Subpart DDDDD

- 40 CFR Part 63, Subpart A

Major for which pollutant(s)? VOC, HAP, Acetaldehyde, Methanol

Class: Major

Attachment 2: Compliance History

| Date | NOV # | Regulation or condition | Description | Resolution |
|-----------|-------|-------------------------|--|--|
| 5/29/2003 | 2035 | ORCAA 9.05(e) | Fallout of particulate matter beyond the property boundary | Paid \$1000 penalty in full |
| 6/25/2003 | 2046 | ORCAA 9.05(e) | Fallout of particulate matter beyond the property boundary | Paid \$2000 penalty in full |
| 7/1/2003 | 2048 | ORCAA 9.05(e) | Fallout of particulate matter beyond the property boundary | Settled on June 4, 2004: SPI Lumber agreed to pay \$10,000 with \$33,000 conditionally suspended |
| 7/2/2003 | 2053 | ORCAA 9.05(e) | Fallout of particulate matter beyond the property boundary | |
| 7/23/2003 | 2063 | ORCAA 9.05(e) | Fallout of particulate matter beyond the property boundary | |
| 8/15/2003 | 2071 | ORCAA 9.05(e) | Fallout of particulate matter beyond the property boundary | |
| 9/23/2003 | 2080 | ORCAA 9.05(e) | Fallout of particulate matter beyond the property boundary | |
| 6/8/2005 | 2285 | ORCAA 9.05(e) | Fallout of particulate matter beyond the property boundary | Paid \$10,000 plus \$31,000 of \$33,000 previously suspended |
| 9/13/2005 | 2329 | ORCAA 9.23 | Emission of an air contaminant detrimental to person or property | Paid \$400 in full |
| 8/8/2006 | 2424 | ORCAA 7.6 | Failure to contain emission of an air contaminant | Paid \$1200 in full |
| 9/27/2006 | 2427 | ORCAA 8.3(e) | Fallout of particulate matter beyond the property boundary | Paid \$1000 with \$9000 suspended |
| 4/23/2007 | 2537 | ORCAA 8.3(c) | Reasonable precaution not taken to prevent particulate matter from becoming airborne | Paid \$5000 with \$5000 suspended |
| 11/5/2007 | 2661 | ORCAA 6.1.8 | Failure to comply with condition #6 from Approval Order 06NOC490: Dust Management Plan | Paid \$8000 in full |
| 5/16/2008 | 2722 | ORCAA 6.1.8 | Failure to comply with condition #6 from Approval Order 06NOC490: Dust Management Plan | Paid \$5000 with \$5000 suspended |
| 3/14/2011 | 3086 | ORCAA 8.4 | Failure to submit a semi-annual monitoring report in a timely manner. | Paid \$1000 in full |
| 7/1/2020 | 4019 | ORCAA 6.3.4(a) | Failure to submit demolition notification prior to demolition activities. | Paid \$1500 in full |
| 7/14/2020 | 4052 | ORCAA 6.1(a)(1) | Failure to receive NOC approval prior to construction of new replacement kilns. | Paid \$52910.76 with \$175089.24 suspended |

*Cited ORCAA Regulations as listed on date of violation