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## Title V Air Operating Permit Renewal Application

The information requested in this document must be provided for a complete application. Please submit to the Northwest Clean Air Agency (NWCAA) one paper copy and one electronic copy of the completed application. The certification at the end of this document applies to the entire submittal. If additional room to reply is required, please attach pages to this request.

In some cases, a prior submittal to the NWCAA (e.g., the annual emissions inventory) may include information requested below. If you would like to refer the NWCAA to that information rather than provide the information here, please note this in your response. Any submittal to which the NWCAA is referred will become part of your renewal application. It is also acceptable to attach relevant portions of your current Air Operating Permit if the information therein provides an adequate response to a question below.

### Part 1: General Information

**1) Company name and address [or plant name and address if different from the company name]**

Sierra Pacific Industries  
Burlington Division  
14353 McFarland Road  
Mount Vernon, WA 98273

**2) Current Air Operating Permit number and expiration date**

019R1 – Expires April 15, 2021

**3) Owner's name and agent**

Owner: Red Emmerson  
Sierra Pacific Industries  
PO Box 496028  
Redding, CA 96049

**4) Responsible Official name and address**

Brad Gould  
Division Manager  
Sierra Pacific Industries  
Burlington Division  
14353 McFarland Road  
Mount Vernon, WA 98273  
Bgould@spi-ind.com

**5) Telephone number and name of plant site manager/contact**

Brad Gould  
Division Manager  
360-424-7619

**6) Were there any changes to the facility impacting air emissions since receiving the current Air Operating Permit? [if yes, please describe changes]**

There have been no changes to the facility that impact air emissions since the start of the current Air Operating Permit.

**Part 2: Process and Emissions Information**

**7) Will there be any changes to the operating scenario(s) identified in the current AOP?**

There are no operating scenarios identified in the currently active AOP.

**8) Provide a description of process and products by Standard Industrial Classification (SIC) Code. Please list the applicable SIC Code. Please repeat the list of processes and products for each alternative operating scenario.**

The SIC Code is shown below for the facility. In addition, the NAICS (which replaced the SIC Code) are shown:

SIC Code: 2421 – Sawmills and Planing Mills  
NAICS Code: 321113 – Sawmills  
321999 – All other Miscellaneous Wood Product Mftg.  
221119 – Other Electrical Power Generation

**9) Please list any and all pollutants that would cause the facility to be classified as a “major source” as defined in WAC 173-401.**

The SPI facility is a designated major source subject to the air operating permit program because it has the potential to emit more than 100 tons per year of nitrogen oxides (NOX), carbon monoxide (CO), volatile organic compounds (VOC), and particulate matter less than 2.5 microns in size (PM2.5), and more than 10 tons per year of hydrogen chloride (HCl) and 25 tons per year of total HAP emissions. These pollutants are defined as regulated air pollutants in Chapter 173-401 of the Washington Administrative Code (WAC).

**10) Please identify and describe all points of emissions at the facility except those that qualify as insignificant emission units or activities as defined in WAC 173-401-530. Are these emissions units correctly identified and defined in the current AOP? If not, please note the requested changes below.**

EU-1	Cogeneration Boiler
EU-2	Cooling Tower
EU-3	Planer Mill
EU-4	Dry Kilns
EU-5	Anti-Mold Spray
EU-6	Natural Gas boiler

The emissions points at the facility remain unchanged from the current AOP, and are identified above.

**11) Please list and quantify all emissions of regulated air pollutants from the emission points identified in item 10 above. Please include calculations. If the most recent annual emissions inventory accurately describes these emissions, it is not necessary to repeat the same information here. Please refer the NWAPA to the most recent annual emissions inventory.**

The 2019 Annual Report is attached to this renewal, and includes all emissions regulated by the permit.

**12) List the fuels used and their respective usage rates at design capacity for the emission points identified in item 10 above.**

There were six emission units listed in Item 10 above. Of these, only the Cogeneration Boiler, and Natural Gas boilers utilized fuels and are shown below:

<b>Emission Unit</b>	<b>Fuel Type</b>	<b>Design Capacity (mmbtu/hr)</b>	<b>Fuel usage</b>	<b>Unit of measurement</b>
Cogeneration Boiler	Wood	430	43	Bdt/hr*
	Nat. Gas	125	130250	Scf/hr**
Natural Gas Package Boiler	Nat. Gas	95	92,400	Scf/hr**

\* Bone dry tons equates to roughly 380,000 tons per year

\* Scf/hr based on heat input natural gas of 1041 btu/scf for Cogen Boiler, scf/hr for Package Boiler from Manufacturer

**13) List the raw materials used and their respective usage rates at design capacity for the emission points identified in item 10 above.**

See response to item 12 above. The Natural gas boiler only uses Natural gas at a design capacity as show.

For the Cogeneration Boiler, the natural gas component is unchanged. Wood and similar biogenic fuels sources are best described as shown on OAC 938c.

- At least 50% of fuel burned in the boiler, shall be clean hog fuel consisting of bark, sawdust, chips, and other wood waste from wood products industries.
- Up to 50% of fuel burned in the boiler, shall be clean cellulosic biomass, resonated wood debris, and/or biomass-derived non-hazardous secondary materials (NHSM) as defined, processed, and managed according to 40 CFR Part 241.

**14) List the production rate at design capacity for the emission points identified in item 10 above.**

Of the six emission points listed in item 10, production rates apply only to the following:

<b>Name</b>	<b>Production Rate</b>
Cogeneration Boiler	250,000 lb/hr steam 28 MW/h electrical Generation
Cooling Tower	N/a
Planer Mill	400 MMBf/year of dimensional lumber
Dry kilns	400 MMBf/year
Anti-Mold Spray	n/a
Natural Gas Boiler	75,900 lb/hr steam

**15) Identify the facility operating schedule (anticipated operating hours per day, days per week, weeks per year)**

The facility operates 24 hours per day, 365 days per year. No change from the current AOP.

**16) Please identify all air pollution control equipment at the facility. Is this air pollution control equipment correctly identified and defined in the current AOP? If not, please provide information necessary to correct.**

<b>Name</b>	<b>Control Device</b>
Cogeneration Boiler	Multicone / ESP
Cooling Tower	None
Planer Mill Cyclone	Baghouse
Dry Kilns	None
Anti-Mold Spray	Mist Eliminator Pad
Natural Gas Boiler	Low NOx Burners

**17) Please identify and describe all compliance monitoring devices or activities at the facility.**

- The facility utilizes a Data Acquisition and Handling System (DAHS) collecting Continuous Parametric Monitoring System (CPMS) data (steam flow), Continuous Emissions Monitoring System (CEMS) data (stack flow, NO<sub>x</sub> concentration, CO concentration, O<sub>2</sub> Concentration, CO<sub>2</sub> Concentration), and Continuous Opacity Monitoring System (COMS) data (Opacity). This system is operated in compliance with a Quality Assurance Plan specified by 40 CFR Part 60.
- The facility operates under a Continuous Assurance Monitoring Plan (CAM) specified in 40 CFR Part 64 and monitors hourly voltage values from each transformer/rectifier set.
- The facility conducts a source test on the cogeneration boiler to determine an emission rate for PM, VOC, and SO<sub>2</sub> at the frequency specified in the permit. On a monthly basis, compliance with the limits for these constituents is demonstrated by multiplying the emission factor determined during the source test by the monthly average firing rate.
- The facility conducts a source test once every 36 months on the cogeneration boiler to determine an emission rate for PM, Hg, and HCl to determine compliance with the Boiler MACT limit (40 CFR Part 63 DDDDD). The steam production rate is measured concurrently during the source test and a steam generation rate Operating Limit is set as 110% of the maximum generation rate during the highest emissions that passed.
- Annually, CEMS RATA certification is conducted.

**18) Identify any limitations on source operation that affect emissions of a regulated pollutant. Similarly, list any work practice standards that affect emissions of a regulated pollutant at this facility.**

**Operating Limits**

- Continuous compliance with Boiler MACT PM, Hg, and HCl is achieved by maintaining steam generation rate below the steam generation rate Operating Limit.
- Maintain opacity to less than or equal to 10 percent opacity or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM (or TSM) emission limitation (daily block average).
- Keep records of the type and amount of all fuels burned in the boiler.

**Work Practice Standards**

- Comply with the startup work practice standards in the Boiler MACT by conducting startup on natural gas.
- A boiler tune-up is conducted once every 5 years to minimize CO and optimize O<sub>2</sub> in the furnace.
- Keep records of the type and amount of all fuels burned in the boiler.
- Collect operating load data or steam generation data every 15 minutes.

### Part 3: Applicable Requirements

**19) Cite and describe all applicable requirements. An updated copy of the applicable requirements in the current AOP for the facility may be sufficient.**

Refer to table 4-1 from current Air Operating Permit.

**20) Please list any applicable test method(s) for determining compliance with each applicable requirement listed in item 19 above. An updated copy of the current AOP for the facility may be sufficient.**

See attached version of current Air Operating Permit.

**21) Does the applicant propose any exemptions from an otherwise applicable requirement? If so, please explain.**

Requesting the same exemptions as shown in the current AOP. In addition, requesting additional exemption from the following:

- Source Testing Requirement under 5.1.12 for SO<sub>2</sub>. SO<sub>2</sub> has been tested 6 times since 2013. The average emission rate is .00073lb/MMBtu. The Maximum emission rate is .002 lb/MMBtu, which is less than 10% of the limit (0.025 lbs/MMBtu). Wood fuel is recognized by the EPA as a low sulfur fuel. Work Practices ensure that only clean biomass is burned. Therefore, SPI believes that burning clean biomass will ensure that SO<sub>2</sub> emissions remain below the permit limits. Additionally, since this facility does not have any emission controls for So<sub>2</sub>, there is no risk of an emissions control failure, therefore, we are not likely to ever emit at a higher rate.
- Source Testing Requirement under 5.1.16 for VOC. VOC has been tested 11 times since 2009. The average emission rate is .00575 VOC/MMBtu. The maximum emission rate is .00500 VOC/MMBtu, which is less than 25% of the permit limit (0.019 lbs/MMBTU). Work Practices ensure that only clean biomass is burned. Therefore, SPI believes that burning clean biomass will ensure that VOC emissions remain below the permit limits. Additionally, since this facility does not have any emission controls for VOC, there is no risk of an emission control failure, therefore, we are not likely to ever emit at a higher rate.

**22) Does the CAM rule (40 CFR part 64) apply to any of the emissions units?**

Yes, in the cogeneration boiler, the CAM rule applies to Particulate Matter (PM) only, similar to the prior AOP (5.1.8, 5.1.14, and 5.1.15). NO<sub>x</sub> and CO are exempt from the CAM requirement due to the presence and use of CEMS for both NO<sub>x</sub> and CO. A copy of the current CAM plan is attached to this renewal. The CAM rule also applies to PM from the planer baghouse (4.12 and 4.13, 5.3.1).

**23) Does the accidental release prevention regulation (40 CFR part 68) apply to the facility?**

No. Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the accidental release prevention regulations in Part 68, then the owner or operator will submit a risk management plan (RMP) on the date specified in section 68.10 and will certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR Part 70.

This facility uses urea, and not ammonia, and does not use any other subject chemical, therefore, 40CFR part 68 does not apply.

**24) Do the federal Acid Rain rules (40 CFR parts 72-78) apply to any of the emissions units?**

No.

**25) Are there any requested changes to any condition in the current Air Operating Permit? [if yes, identify the condition, the requested change, and the reason]**

No.

26) If the applicant would like to request that the permit shield be extended to cover certain requirements that the applicant believes are inapplicable, please list those requirements, below. Please include a brief narrative description of each requirement and the basis for the belief that each is inapplicable.

Requirement	Emissions Unit	Brief Discussion of Requirement	Basis
40 CFR Part 60 Subpart Da	EU-1	New Source Performance Standards for electric utility steam generating units	Applies to fossil fuel fired systems. SPI only uses natural gas during startup and to maintain good combustion
40 CFR Part 60 Subpart E	EU-1	New Source Performance Standards for incinerators	Only biomass and natural gas are fired in the boiler.
40 CFR Part 60 Subpart KKKK	EU-1	New Source Performance Standards for stationary combustion turbines.	SPI operates a steam turbine.
40 CFR Part 60 Subpart Kb	Facility	New Source Performance standards for Volatile Organic Liquid Storage Vessels	No storage vessels have been constructed at the facility.
40 CFR Part 63 Subpart Q	EU-2	National Emission Standards for Hazardous Air Pollutants for Industrial process Cooling Towers.	SPI does not use chromium-based water chemicals in their cooling towers.
WAC 173-400-050(2), (4), and (5)	Facility	Emission Standards for Combustion and Incineration Units	The facility burns only clean hog fuel and biomass residuals, and is therefore not an incinerator or waste combustion unit.
WAC 173-400-070(1), (3) – (8)	Facility	Emission Standards for Certain Source Categories	SPI does not operate a wigwam burner, orchard heater, grain elevator, catalytic cracking unit, sulfuric acid plant, or sewage sludge incinerator.
WAC 173-433	EU-1	Solid Fuel Burning Devices	As defined in WAC 173-433-030(9), EU-1 is not a solid fuel burning device (greater than 1MMBtu/hr)
WAC 173-434	EU-1	Solid Waste Incinerator Facilities	As defined in WAC 173-434-030, the facility is not defined as a solid waste incinerator.

#### Part 4: Compliance Status and Certification

- 1) Describe the compliance status of the facility with regard to all applicable requirements. Compliance status for each applicable requirement shall be described as “continuous” or “intermittent”. Please include the method used for determining compliance. If an annual compliance certification has been recently submitted to the NWCAA, the applicant may reference this report. However, if the applicable requirements or compliance status have changed since that submittal, an updated submittal is required.

The 2019 Annual Report included the compliance status and compliance certification.

- 2) Provide the following:
  - a) For applicable requirements with which the source is in compliance, provide a statement that the source will continue to comply with such requirements;

The following statement is included as part of this renewal application:

For applicable requirements with which the source is in compliance, the facility shall continue to comply with such permit requirements indicated in the Title V Permit and most recent PSD (Amendment #2) and OAC (938c)

- b) For applicable requirements that become effective during the permit term, provide a statement that the source will meet such requirements on a timely basis;

The following statement is included as part of this renewal application:

For applicable requirements that become effective during the Title V permit term, the facility shall meet such requirements on a timely basis.

- c) For applicable requirements with which the source is not in compliance at the time of permit issuance, provide a narrative description and provide a schedule of compliance. Such a schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based;

Not applicable at the time of this application renewal.

- d) For sources required to have a schedule of compliance to remedy a violation, provide a schedule for submission of certified progress reports every six months or at a more frequent period if specified in an applicable requirement; and

Not applicable at the time of this application renewal.

<b>Statement of Certification:</b> <i>Based on information and belief formed after reasonable inquiry, the statements and information in this document and any attachments are true, accurate and complete.</i>	
_____	_____
Name of designated responsible official	Title of responsible official
_____	_____
Signature of responsible official	Date