

Sierra Pacific Industries, Inc.
Centralia Sawmill
DRAFT Title V Basis Statement

Southwest Clean Air Agency
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PERMIT #: SW10-16-R0

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PREPARED FOR: Sierra Pacific Industries, Inc.
19794 Riverside Avenue
Redding, CA 96049

PLANT SITE: Sierra Pacific Industries, Inc. – Centralia Sawmill
3115 Kuper Rd
Centralia, WA 98531

PERMIT ENGINEER: Vanessa McClelland, Air Quality Engineer

REVIEWED BY: Paul T. Mairose, Chief Engineer

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I. GENERAL INFORMATION AND CERTIFICATION

1. Company Name: Sierra Pacific Industries, Inc
2. Facility Name: Sierra Pacific Industries, Inc.
– Centralia Sawmill
3. Responsible Official: Scott North, Division Manager
4. Facility Contact Person: Scott North, Division Manager
5. Unified Business Identification Number: 601-766-172
6. SIC Code/NAICS Number: 2421/321113
7. Basis for Title V Applicability:

Sierra Pacific Industries (Sierra Pacific) has actual emissions in excess of 100 tpy of carbon monoxide which is a regulated criteria pollutant under the Federal Clean Air Act, and actual emissions in excess of 10 tpy for acetaldehyde which is a regulated hazardous air pollutant.
8. Current Permitting Action:

This is an initial Title V Permit.
9. Attainment Area:

Sierra Pacific is located in an area which is in attainment for all criteria pollutants.
10. Facility Description:

Sierra Pacific is a manufacturer of dimensional lumber products primarily for the construction industry.

Sierra Pacific has a sawmill located at 3115 Kuper Road, Centralia, Lewis County, Washington. Sierra Pacific manufactures dimensional lumber products. The sawmill receives mainly fresh cut Douglas fir and hemlock timber, and processes the wood into dimensional lumber. Dimensional lumber produced at Sierra Pacific is shipped both kiln dried and green. Both the dry and green lumber are treated with anti-stain solution. The lumber facility includes a Nebraska hog fuel boiler, dry kilns, sawing facility, bunkers, a planer, and a baghouse. Sierra Pacific's equipment is divided into five emission units designated as EU-1 through EU-5. All emission units are either directly or indirectly involved in lumber production.

Sierra Pacific typically operates 3 rotating 10 hour shifts, approximately 120 hours per week, at the sawmill and planer mill. The boiler typically operates twenty-four hours a day, seven days a week.

11. SWCAA Air Discharge Permits:

The following table lists each Air Discharge Permit issued for this facility. Permits in bold contain no active requirements. The requirements may have been superseded, may have been of limited duration, or the equipment may have been removed.

Permit	Permit Application	Date Issued	Description
06-2669	L-572	3/21/06	Approval to construct and operate a new green lumber sawmill.
07-2753	L-601	10/10/07	Approval to install a hog fuel boiler and three dry kilns. This Permit superseded Permit 06-2669.
08-2799	L-618	7/17/08	Installation of three additional dry kilns and an increase in dry kiln throughput. Increase anti-stain usage from 3,000 to 5,000 gallons per year. Other processes were increased as well as the facility emission limits. This Permit established the facility as a Title V. This Permit superseded 07-2753 in its entirety.
08-2799R1	L-635	1/21/10	Correction of an erroneously established permit limit. Also, dry kiln emission factors and testing protocol were updated, and the sap stain product was changed. This Permit superseded 08-2799 in its entirety.

II. EMISSION UNIT IDENTIFICATION

ID #	Generating Equipment/Activity	Emission Control
EU-1	Log Yard	Wet suppression/water truck
EU-2	Sawmill - Planer, Bunkers	Total enclosure, baghouse (Carothers and Son), partial enclosure/wind screens
EU-3	Nebraska Hog Fuel Boiler	One multiclone followed by a two-field ESP and SNCR
EU-4	Dry Kilns	Process temperature limit
EU-5	Anti-Stain Treatment	Mist eliminator

EU-1 Log Yard

The log yard consists of all outdoor areas on the north side of the facility used for the handling and storage of raw logs. Raw logs are received by trucks and stacked until needed for the sawmill. Access roads to the log yard from Foron and Kuper Roads are completely paved, as well as the yard area itself. Haul road and fugitive dust emissions

are controlled by water suppression and a street sweeper as necessary to minimize emissions.

The following individual pieces of equipment are associated with EU-1:

Equipment

One water truck
One sweeper truck
Various log trucks
Various log loaders and transports

EU-2 Saw and Planer Mills

The sawmill consists of associated equipment used to produce green lumber. The sawmill is arranged in a linear configuration. Raw logs are debarked and sent through the merchandizer. Associated equipment is outside but equipped with sawdust guards to reduce fugitive emissions. The remaining equipment for the sawmill is enclosed within a building. Processed logs are then cut down to standard stud lumber sizes through multiple stages of trimming, edging, and resawing. Green sawdust and chips from sawing operations are mechanically conveyed to the chip screen.

In the planer mill the boards are trimmed prior to the planer and the trim blocks are sent to the chipper. The planer and trim saws are connected to the Carothers and Son baghouse.

Emissions from the sawmill consist of fugitive particulate matter emissions from process operations as well as non-fugitive particulate matter emissions from the baghouse. Particulate matter collected in the baghouse is conveyed to storage bins. Bark and other streams of byproduct material are conveyed to a hogger unit and stored in an exterior bin. Other streams of unusable wood are mechanically conveyed to multiple chippers. Wood chips are mechanically conveyed to exterior storage bins prior to shipment off site.

The following individual pieces of equipment are associated with EU-2:

Equipment

- One 22" debarker
- One rotary knife hog
- One USNR transverse board edger
- One Comact Inc. canter
- One horizontal resaw
- Six 60" cut-off saws
- One disk chipper
- Two trim saws
- One saw blade filing room (no external exhaust)
- One planer, a USNR 24-knife machine with a maximum speed of 2,400 ft/min.
- Five 30-unit bunkers containing wood byproducts. Particulate matter during unloading is controlled by enclosures on both sides and plastic sheeting on the ends.

- The Carothers and Son, Ltd. model CSL 405TR12HEI (serial #CSC3420BH) baghouse is rated at 60,000 acfm (source test data recorded airflow at 56,141 acfm). Exhaust air is discharged at a height of approximately 12'6" above ground level out of a stack with a diameter of 48.24 inches. The baghouse contains 405 bags, 6" by 12' in dimension providing a surface area of 7,819 ft². The bags are constructed out of 16 oz/yd² singed polyester. This unit serves as primary control equipment for the planer mill.

EU-3 Hog Fuel Boiler

The Nebraska hog fuel boiler, mounted on three Wellons Inc. fuel cells, was originally installed in 1977 for American Forest Products in California and an ESP was added in the late 1990s. In 1997 it was converted from a natural-gas fired boiler to a wood-fired boiler. The boiler was relocated from California to its current location in 2007. The boiler is used to generate steam for the lumber dry kilns on-site and is fired solely on wood byproducts from facility operations with the potential to buy additional hog fuel from other facilities in the future on an as-needed basis. Most of the boiler's fuel is hog fuel from the sawmill. However, chips, planer shavings, sawdust, and scrap wood are all fired in the boiler depending on required fuel characteristics. Exhaust from the boiler's furnace passes through a new selective noncatalytic reduction (SNCR) system to reduce oxides of nitrogen (NO_x) concentrations and then through a multiclone followed by a Wellons two-field ESP to remove particulate matter (PM).

The Nebraska hog fuel boiler is subject to the NSPS standard 40 CFR 60.40c et seq. (Subpart Dc) "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units" for units greater than 10 MMBtu/hr but less than 100 MMBtu/hr because it is rated at 88.4 MMBtu/hr and because it was modified by converting it from a natural-gas fired boiler to a wood-fired boiler in October 1997, which is after June 9, 1989.

Opacity, NO_x and CO emissions are continuously monitored using continuous emission/opacity monitors.

The following individual pieces of equipment are associated with EU-3:

Equipment

- Nebraska hog fuel boiler, National Board Number 3681-80, serial #2D1870, rated at 60,000 pounds of saturated steam per hour and 88.4 MMBtu with an airflow of 45,890 acfm at 350 °F (approximately 25,400 dscfm). The unit is equipped with an air heater. The exhaust stack is 71.5 feet tall and 50.5 inches in diameter.
- One SNCR system to reduce post combustion NO_x concentrations using anhydrous ammonia, which is stored as a liquid and vaporized by a 10 kW heater to be used in the SNCR system. The unit can achieve a control efficiency of approximately 50%. The system includes an ammonia tank, approximately 1,000 gallons in capacity, that the facility only fills 85% full. There are four injection nozzles, two each in the upper section of the combustion zone of the boiler on both ends of the unit. The ammonia injection is computer controlled and it injects ammonia when the NO_x reaches 85 ppm.

- One multiclone, serial number B9735-0330, and one Wellons two-field ESP, model Wellons "Size #6", ID number 2W-091-1422 in series to reduce PM emissions.

The Nebraska boiler can operate at levels of 90 ppm for NO_x, 228 ppm for CO, 0.015 gr/dscf for PM, and 25 ppm for ammonia corrected to 7% O₂.

EU-4 Dry Kilns

Six dry kilns are used to dry green lumber from the sawmill. The kilns are powered exclusively with steam from the facility's hog fuel boiler. Rough sawn lumber, almost exclusively Douglas fir and hemlock, is stacked on carts and rolled into the kilns. After drying, lumber is removed from the kilns and sent to the sawmill planer.

The following individual pieces of equipment are associated with EU-4:

Equipment

- Six Sierra Pacific steam heated double track kilns. The kilns are 34' wide by 120' long by 20' tall and hold approximately 230 MBF each. The facility proposed to maintain kiln temperatures at or below 180 °F. Drying times last from 24 to 48 hours depending on size of lumber and type of wood.

EU-5 Sap Stain System

One Diacon water-based anti-stain system with recirculation and a mist eliminator. It has a 6" diameter stack that exhausts 12' above ground level. The current anti-stain is a Kop-Coat Bazooka® and Alpha™ - 8 Custom Blend, which is used at a rate of approximately 1 gallon of solution per 60,000 board feet. Emissions from the spray enclosure are collected and vented to a mist eliminator. The mist eliminator consists of internal baffles that collect the anti-stain droplets and send them back into circulation. The mist eliminator is estimated to eliminate 98% of all particles 12 microns or larger. The facility sprays all green wood as well as applies a light coat to dry wood, about a third of the normal coverage on a green board, to protect it against the local area's humidity while it is wrapped for shipping.

The following individual pieces of equipment are associated with EU-5:

Equipment

A sap stain spray system, including a mist eliminator and recirculation.

III. EXPLANATION OF INSIGNIFICANT EMISSION UNIT DETERMINATIONS

Each emission unit listed as insignificant in the permit application has been reviewed by SWCAA to confirm its status. Emission units determined to be insignificant by SWCAA are described as follows:

IEU-1 Welding WAC 173-401-532(12)

The permittee performs a variety of maintenance and repair activities on-site that involve metal fabrication and welding. These activities consume far less than one ton of welding rod per day, and are deemed insignificant in accordance with WAC 173-401-532(12).

IEU-2 Debarker and Hog WAC 173-401-532(112 and 113)

The permittee performs chipping and debarking activities on raw timber. These activities are deemed insignificant in accordance with WAC 173-401-532(112 and 113).

IV. EXPLANATION OF SELECTED PERMIT PROVISIONS AND GENERAL TERMS AND CONDITIONS**P10. Excess Emissions**

[SWCAA 400-107, WAC 173-400-107]

WAC 173-400-107 and SWCAA 400-107 establish criteria and procedures for determining when excess emissions are considered unavoidable. Emissions that meet the requirements to be classified as unavoidable are still considered excess emissions and are reportable but are excused and not subject to penalty. Notification of excess emissions is required as soon as possible and shall occur by the next business day following the excess emissions event. Excess emissions due to startup or shutdown conditions are considered unavoidable if the permittee adequately demonstrates the excess emissions could not have been prevented through careful planning and design. Upset excess emissions are considered unavoidable if the permittee adequately demonstrates the upset event was not caused by poor or inadequate design, operation, maintenance, or other reasonably preventable condition, and the permittee takes appropriate corrective action that minimizes emissions during the event, taking into account the total emissions impact of that corrective action.

In accordance with SWCAA 400-070(2), visible emissions from the hog fuel boiler may exceed the operational opacity limit of 15% and the general standard of 20% during periods of soot blowing and/or grate cleaning. These periods are limited to not more than 15 minutes once in any 8 consecutive hours. A grate cleaning schedule is required to be submitted to SWCAA annually.

SWCAA 400-040(1)(a) approves the soot blowing and grate cleaning as necessary to the proper and efficient operation of the boiler facilities. This practice, except for testing and trouble shooting, is to be scheduled for the same approximate times each day and the Agency shall be advised of the schedule.

G10. Portable Sources

[SWCAA 400-110(6), WAC 173-400-110(9)]

WAC 173-400-110(5) in the SIP (replaced in the State only rules by WAC 173-400-035) and SWCAA 400-110(6) establish procedures for approving the operation of portable

sources of air emissions that locate temporarily at project sites. These requirements are general statewide standards, and apply to all portable sources of air contaminants. Common equipment subject to these conditions include emergency generators, engine-powered pumps, rock crushers, concrete batch plants, and hot mix asphalt plants that operate for a short time period at a site to fulfill the needs of a specific contract. Portable sources exempt from registration under SWCAA 400-101 are exempt from SWCAA 400-110 and not subject to the portable sources requirements. Among those categories listed in SWCAA 400-101 that are exempt, are operations with potential to emit less than 1 ton/yr of all criteria pollutants plus volatile organic compounds, combined.

V. EXPLANATION OF OPERATING TERMS AND CONDITIONS

Reqs. 1-8 General Standards for Maximum Emissions

[WAC 173-400-040, SWCAA 400-040]

WAC 173-400-040 and SWCAA 400-040 establish maximum emission standards for various air contaminants. These requirements apply to all emission units at the source, both EU and IEU. Pursuant to WAC 401-530(2)(c), the permit does not contain any testing, monitoring, recordkeeping, or reporting requirements for IEUs except those specifically identified by the underlying requirements.

Req. 7 prohibits any concealment or masking. At present, the permittee does not operate any equipment capable of masking emissions, therefore monitoring is limited to the semi-annual compliance certification.

Req. 9 Emission Standards for Combustion and Incineration Units

[WAC 173-400-050, SWCAA 400-050]

WAC 173-400-050 and SWCAA 400-050 establish maximum emission standards for selected emissions from combustion and incineration units. These requirements apply to all combustion and incineration units at the source, both EUs and IEUs. Pursuant to WAC 401-530(2)(c), the permit does not contain any testing, monitoring, recordkeeping, or reporting requirements for IEUs except those specifically identified by the underlying requirements.

Req. 10 Emission Standards for General Process Units

[WAC 173-400-060, SWCAA 400-060]

WAC 173-400-060 and SWCAA 400-060 establish maximum particulate matter emission standards for general process units. These requirements apply to all general process units at the source, both EUs and IEUs. Pursuant to WAC 401-530(2)(c), the permit does not contain any testing, monitoring, recordkeeping, or reporting requirements for IEUs except those specifically identified by the underlying requirements.

Req. 11-30 Air Discharge Permit for Correction of Erroneously Established Permit Limit
[SWCAA 08-2799R1]

Air Discharge Permit 08-2799R1, issued for Permit application L-632 on January 21, 2010, corrected an erroneously established permit limit, updated dry kiln emission factors and testing protocol, and addressed a change in sap stain. This is the only valid Permit for the facility.

Req-11 limits emissions from the Nebraska hog fuel boiler to the following:

NO _x	58.52 tpy, 90 ppmvd, 24-hour average
CO	105.35 tpy, 228 ppmvd, 24-hour average
PM/PM ₁₀	14.30 tpy, 0.015 gr/dscf, 1-hr average (filterable only)
Ammonia	5.81 tpy, 25 ppm, 24-hour average
Acetaldehyde	0.06 tpy
Acrolein	0.012 tpy
Formaldehyde	0.67 tpy

The limits are established based on manufacturer's guarantees.

Req-12 limits emissions from the lumber drying operations to the following:

VOC	85.00 tpy
PM/PM ₁₀	4.65 tpy
Acetaldehyde	10.50 tpy
Acrolein	0.18 tpy
Formaldehyde	0.19 tpy
Methanol	7.00 tpy

The limits are established based on actual type and quantity of lumber dried and emission factors.

Req-13 limits emissions from anti-stain to the following:

VOC	1.70 tpy
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Req-14 limits emissions from the Carothers and Son baghouse to the following:

PM/PM ₁₀	11.26 tpy, 0.005 gr/dscf, 1-hr average
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Req-15 limits emissions from the bin unloading operations to the following:

PM	37.44 tpy
PM ₁₀	22.46 tpy

Req-16 limits opacity from the Nebraska hog fuel boiler to ten percent. This limit was set as part of the BACT evaluation of this source. Data from the boiler source tests has shown that while under proper operation the opacity can be maintained at 10% or below (not to be exceeded for more than 3 minutes in any one hour).

Req-17 limits opacity from dry kilns to five percent. This limit was set as part of the BACT evaluation of this source. The dry kilns have indicated that while under proper operation the opacity can be maintained at 5% or below (not to be exceeded for more than 3 minutes in any one hour).

Req-18 limits opacity from sawmill operations to zero percent. This limit was set as part of the BACT evaluation of this source. In SWCAA's experience, enclosed sawmill operations of green lumber can easily meet the 0% opacity limit (not to be exceeded for more than 3 minutes in any one hour).

Req-19 requires operations that cause or contribute to a nuisance odor to use recognized good practice and procedures to reduce these odors to a reasonable minimum.

Req-20 requires each pollution control device shall be operated whenever the processing equipment served by that control device is in operation with the exception of the ESP and SNCR during hog fuel boiler start-ups.

Req-21 requires exhaust gasses to discharge vertically without any device to obstruct vertical dispersion.

Req-22 requires the Carothers and Son baghouse to be equipped with a differential pressure gauge to indicate the pressure differential across the filtering media. The pressure drop across filtration media can be used to gauge baghouse performance and determine the baghouse bag cleaning/replacement schedule. SWCAA uses this data to assess system performance during inspections.

Req-23 requires the Nebraska hog fuel boiler to only be fired on wood products. The Permittee shall employ work practices to assure only clean fuel is combusted in the hog fuel boiler, because experience shows rocks, dirt and other detritus within the fuel can cause clinker production.

Req-24 requires the Nebraska hog fuel boiler to be equipped with a meter capable of monitoring the ammonia usage of the SNCR system.

Req-25 limits the maximum set point temperature of lumber drying to 180 °F. Studies have shown a significant increase in VOC and some HAP emissions when lumber drying exceeds 180 °F. SWCAA acknowledges that at times the actual temperature will exceed the set point temperature and that this is natural for the nature of the equipment.

Req-26 requires the dry kiln doors to be kept closed at all times during active drying operations.

Req-27 limits the lumber approved for drying in the kilns to Douglas fir, pine, hemlock, and spruce. Lumber made from other wood species may be dried upon written approval by SWCAA. When requesting approval, the permittee must provide the following information to SWCAA:

- (a) Identification of the wood species to be dried;
- (b) Emission factors for the specified wood species; and
- (c) Expected quantity of lumber of that species to be dried.

Req-28 requires wood waste loadout bins to have full length side wind barriers as well as shrouding/curtains on the end to reduce fugitive particulate emissions.

Req-29 requires all VOC containing materials to be collected in an enclosed container and not allowed to evaporate.

Req-30 requires a street sweeper to be used weekly on paved roads when significant rainfall has not occurred for 15 days or more and a watering truck to be used daily on unpaved roads when significant rainfall has not occurred for 15 days or more to minimize fugitive dust.

VI. EXPLANATION OF OBSOLETE AND FUTURE REQUIREMENTS

1. Obsolete Air Discharge Permits

SWCAA has issued a total of four Permits for Sierra Pacific. As identified in Section V, only one of these Permits is still active. The approval conditions in the remaining three Permits have been superseded or have become obsolete as described below.

SWCAA 06-2669 was issued March 22, 2006 for Permit application L-572. SWCAA 06-2669 approved the operation of a new green lumber sawmill. This Permit was superseded by 07-2753.

SWCAA 07-2753 was issued October 10, 2007 for Permit application L-601. SWCAA 07-2753 approved the installation of a hog fuel boiler and three dry kilns. This Permit was superseded by 08-2799.

SWCAA 08-2799 was issued July 17, 2008 for Permit application L-618. SWCAA 08-2799 approved the installation of three dry kilns, increased kiln throughput, increased HAP emissions, increased NO_x emissions, increased start up emissions, increased anti-stain usage, changed NO_x control from urea to anhydrous ammonia and incorporated the addition of bin unloading curtains. This Permit was superseded by 08-2799R1.

2. Non-Applicable Requirements

Under the authority of section 112(r) of the Clean Air Act, the Chemical Accident Prevention Provisions require facilities that produce, handle, process, distribute, or store certain chemicals to develop a Risk Management Program, prepare a Risk Management Plan (RMP), and submit the RMP to EPA. Covered facilities were initially required to comply with the rule in 1999, and the rule has been amended on several occasions since then, most recently in 2004. The facility does not produce, handle, process, distribute, or store the chemicals listed in 40 CFR 68.130.

3. Future Requirements

Title 40 CFR 63 Subpart DDDDD: National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. On July 30, 2007, the United States Court of Appeals for the District of Columbia Circuit issued a mandate vacating and remanding the NESHAP for Industrial Boilers and Process Heaters. The Subpart is not currently in effect.

In 2009 SWCAA compiled test data on emissions from lumber drying from various sources within and outside SWCAA jurisdiction. HAP emissions from the dry kiln operations were recalculated with this updated information for the maximum throughput of Sierra Pacific. Based on this updated emissions data the facility is major for HAP emissions and therefore Subpart DDDDD applies. The lumber drying and hog fuel boiler operations combined emit 10.56 tpy of acetaldehyde.

As of the date of this Permit the facility has chosen to not take any type of limit to restrict HAP emissions below major source thresholds.

VII. EXPLANATION OF MONITORING TERMS AND CONDITIONS

M1. Visible Emissions Monitoring

The applicable requirements cited in this monitoring section are general requirements drawn from WAC 173-400, SWCAA 400, and SWCAA 08-2799R1. These requirements do not directly establish any specific regime of monitoring or recordkeeping. Consequently, SWCAA has implemented monitoring and recordkeeping requirements under the "gap filling" provisions of WAC 173-401-615.

M1 is designed to assure compliance through periodic facility inspections and prompt corrective action. M1 requires a Plantwide survey to identify potential visible emissions. If emissions are not apparent during the initial survey, it is highly unlikely that the source is in violation with particulate matter or opacity standards and it is unnecessary to perform a formal Method 9 opacity observation. Demonstration of compliance is required in some cases via visible emissions evaluation.

M2. Particulate Matter Emission Monitoring

The applicable requirements cited in this monitoring section are general requirements drawn from WAC 173-400, SWCAA 400, and SWCAA 08-2799R1. These requirements do not directly establish any specific regime of monitoring or recordkeeping for all particulate matter emission sources. Consequently, SWCAA has implemented monitoring and recordkeeping requirements under the "gap filling" provisions of WAC 173-401-615.

M2 is designed to assure compliance through periodic facility inspections and prompt corrective action. M2 requires a Plantwide survey to identify potential excess particulate matter emissions.

M3. Fugitive Emissions Monitoring

The applicable requirements cited in this monitoring section are requirements drawn from WAC 173-400, SWCAA 400, and SWCAA 08-2799R1. SWCAA 08-2799R1 requires that reasonable precautions shall be taken to prevent and minimize fugitive emissions. These precautions include utilizing equipment such as street sweepers and watering trucks on facility roads, keeping dry kiln doors closed during operation, and venting dry

kilns through elevated stacks. The use of the street sweepers and watering trucks shall be recorded when utilized.

M3 requires the permittee to perform monthly inspections of the facility during daylight hours to identify any excess fugitive emissions, including fugitive dust.

M4. Complaint Monitoring

The applicable requirements cited in this monitoring section are general requirements drawn from WAC 173-400, SWCAA 400, SWCAA 08-2799R1. SWCAA 08-2799R1 requires that operations that cause or contribute to a nuisance odor shall use recognized good practice and procedures to reduce these odors to a reasonable minimum. These requirements do not directly establish any specific regime of monitoring or recordkeeping. Consequently, SWCAA has implemented monitoring and recordkeeping requirements under the "gap filling" provisions of WAC 173-401-615.

M4 is designed to ensure compliance through prompt complaint response and corrective action.

M5. Compliance Certification

The applicable requirements cited in this monitoring section are drawn from 40 CFR 64, WAC 173-400-040(7) and SWCAA 400-040(7), SWCAA 08-2799R1. WAC 173-400-040(7) and SWCAA 400-040(7) are general requirements which do not directly establish any specific regime of monitoring or recordkeeping. Consequently, SWCAA has implemented monitoring and recordkeeping requirements under the "gap filling" provisions of WAC 173-401-615.

WAC 173-400-040(7) and SWCAA 400-040(7) prohibit the concealment or masking of emissions which would otherwise violate a general standard. The permittee does not operate any equipment capable of masking emissions so semi-annual certification is deemed sufficient to assure compliance.

SWCAA 08-2799R1 requires the permittee to install specific equipment, and the boiler to be fired on clean hog fuel only. SWCAA has required semi-annual certification that the monitoring equipment is installed and maintained, and the boiler is operated on only clean hog fuel.

M6. SO₂ Emission Standard

The applicable requirements cited in this monitoring section are drawn from WAC 173-400-040(6), SWCAA 400-040(6), and SWCAA 08-2799R1. WAC 173-400-040(6) and SWCAA 400-040(6) limit the emission of sulfur dioxide from combustion sources to a maximum of 1000 ppm_v corrected to a specified oxygen percentage. The boiler at this source is only fired with hog fuel and other wood byproducts from facility operations. These fuels have extremely low fuel sulfur contents relative to other petroleum-based fuels. Based on stoichiometric analysis, it is not physically possible for the combustion

sources in question to exceed the limit of 1000 ppm_v sulfur dioxide while firing on these fuels. Monitoring has therefore been limited to certification of fuel type.

M7. Hog Fuel Boiler Operations Monitoring

The applicable requirements cited in this monitoring requirement are drawn from 40 CFR 64 and SWCAA 08-2799R1. Proper maintenance of the boiler assures clean and efficient operations.

M7 is designed to ensure maximum performance from the boiler, EU-3.

M8. Monitoring and Emissions from Lumber Drying

The applicable requirements cited in this monitoring requirement are drawn from SWCAA 08-2799R1. Compliance with the specified emission limits are calculated based on lumber throughput and SWCAA Default August 2009 emission factors. A maximum set point temperature is specified for the lumber dry kilns that has been determined to produce lower emissions and/or minimize smoke from partial combustion of exhaust gases.

M8 is designed to collect and retain process data which will then be used to calculate emissions for EU-4.

M9. Material Handling Operations Monitoring

The applicable requirements cited in this monitoring requirement are drawn from SWCAA 08-2799R1. These requirements specify monitoring parameters for the proper operation of the facility's baghouse and bin unloading operations. Compliance with the specified emission limits are calculated based on actual bone dry tons unloaded and annual hours of operation.

M9 is designed to collect and retain process data which will then be used to calculate emissions for EU-2.

M10. Anti-Stain Monitoring

The applicable requirement cited in this monitoring requirement are drawn from SWCAA 08-2799R1. Compliance with the specified emission limits are calculated based on actual anti-stain usage and MSDS information. Prior approval of use of a new material is required to assure applicable ASILs, as defined in WAC 173-460 [effective 8/98], are not exceeded.

M10 is designed to collect and retain process data which will then be used to calculate emissions for EU-5.

M11. Particulate Matter Emissions Testing

The applicable requirements cited in this monitoring section are drawn from SWCAA 08-2799R1. A schedule of emission testing to confirm compliance with the requirements is provided. Testing is to be conducted in accordance with SWCAA 08-2799R1, Appendix D which prescribes sampling points, testing protocols, data reduction, and reporting formats. M11 is designed to provide periodic demonstration of compliance with particulate matter emission limits.

M11 is designed to determine equipment operation and to assure compliance with emission limits for EU-2.

M12. Lumber Drying Emission Testing

The applicable requirement cited in this monitoring section is drawn from SWCAA 08-2799R1. SWCAA 08-2799R1 establishes a schedule of emission testing to gather data to set the emission factors for future permitting actions. The results are not used for compliance determinations. Testing is to be conducted in accordance with SWCAA 08-2799R1, Appendix C. The method prescribes sampling points, testing protocols, data reduction, and reporting formats. It is important to note that the specified test method does not directly test the kilns. Testing is performed on wood samples in a laboratory environment. Lumber drying emissions are calculated based on lumber throughput and an emission factor established in the Air Discharge Permit.

An alternative test method or testing schedule may be requested in writing from SWCAA's Executive Director in advance of the source test's scheduled deadline depending on facility operations and circumstances.

Initial emission testing had been delayed due to the unavailability of an emission testing company. Now, a testing facility is available and the emission test is being scheduled.

M12 is designed to provide new data to establish future emission factors for this type of process.

M13. Boiler Emission Testing

The applicable requirements cited in this monitoring section are drawn from SWCAA 08-2799R1. SWCAA 08-2799R1 establishes a schedule of emission testing to confirm compliance with the requirements. Testing is to be conducted in accordance with SWCAA 08-2799R1, Appendix A which prescribes sampling points, testing protocols, data reduction, and reporting formats.

An alternative test method or testing schedule may be requested in writing from SWCAA's Executive Director in advance of the source test's scheduled deadline depending on facility operations and circumstances.

M13 is designed to demonstrate compliance through periodic testing for EU-3.

M14. Boiler Continuous Emission Monitoring

The applicable requirement cited in this monitoring section is drawn from SWCAA 08-2799R1.

A CEMS for NO_x, CO, and O₂ will monitor exhaust concentrations and mass emission rates of these pollutants from the hog fuel boiler. A COMS for measuring the opacity of emissions will be also maintained on the boiler exhaust stack.

M14 is designed to demonstrate compliance with the specific pollutant emissions limits and standards for EU-3.

VIII. EXPLANATION OF RECORDKEEPING TERMS AND CONDITIONS**K1. General Recordkeeping**

This recordkeeping section is taken directly from SWCAA 08-2799R1 and WAC 173-401-615(2). Recordkeeping requirements were separated into Sections (a) through (d) to organize the requirements.

K1(d) "Sampling and Emission Testing" applies to source testing reports. SWCAA expects that the only source testing to be performed will be the performance testing of EU-2, EU-3 and EU-4 during the performance demonstration detailed in M11, M12 and M13.

K2. Continuous Emission Data Recordkeeping

This recordkeeping section is taken directly from SWCAA 08-2799R1 and WAC 173-401-615(2).

IX. EXPLANATION OF REPORTING TERMS AND CONDITIONS**R1. Deviations from Permit Conditions**

The permittee is required to report all permit deviations. This reporting section is taken directly from WAC 173-401-615(3) and SWCAA 400-107. The permittee is required to report all permit deviations no later than 30 days following the end of the month during which the deviation is discovered. Permit deviations due to excess emissions shall be reported to SWCAA as soon as possible. SWCAA may request a full report of any deviation if determined necessary. These deviations are also reported in each semi-annual report.

R2. Complaint Reports

The permittee is required to report all complaints to SWCAA within three business days of receipt to ensure prompt complaint response. This reporting section is based on WAC 173-401-615(3).

R3. Semi-Annual Reports

The permittee is required to provide a report on the status of all monitoring records and provide a certification of all reports on a semi-annual basis. Semi-annual reporting and certification of monitoring records is required by WAC 173-401-615(3). A Responsible Official must certify all reports required by the Title V permit.

The semi-annual report provides information on the status of all required monitoring. The actual results (e.g. measured pressure drops, opacity readings, etc.) do not need to be submitted unless specifically required by the permit.

R4. Annual Reports

Annual Compliance Certification: The permittee is required to report and certify compliance with all permit terms and conditions on an annual basis. Annual compliance certification is required by SWCAA 401-630(5). Any deviations from permit conditions or certifications of intermittent compliance need to be accompanied by an explanation.

Annual Report: The contents of the annual report are specified. The requirement includes the submission of a boiler grate cleaning schedule. The report is designed to establish a regular schedule for grate cleaning operations.

R5. Emission Inventory Reports

The permittee is required to report an inventory of emissions from the source, and certify compliance with all permit terms and conditions on an annual basis. The annual emissions inventory must be submitted to SWCAA by March 15th for the previous calendar year as provided in SWCAA 400-105. WAC 173-400-105 sets a later emission inventory due date of April 15th. A complete emissions inventory includes quantifiable emissions from all EUs described in Section II and the IEUs described in Section III.

R6. Source Test and RATA Reports

This reporting section is taken from SWCAA 400-106(1)(g), SWCAA 08-2799R1 and Appendices A, B, C, F. The permittee is required to report test results within 45 days of test completion to allow timely review by SWCAA.

R7. Monthly Reports

This reporting section is taken from SWCAA 08-2799R1. The permittee is required to provide a monthly report of the previous 12-month totaled emissions of NO_x and CO from the hog fuel boiler to assure that in no 12-month period has the annual emission limit been exceeded.

R8. MACT Reports

In 2009 SWCAA compiled test data on emissions from lumber drying from various sources within and outside SWCAA jurisdiction. HAP emissions from the dry kiln operations were recalculated with this updated information for the maximum throughput of Sierra Pacific; based on this updated emissions data the facility is major for HAP emissions. The lumber drying and hog fuel boiler operations combined emit 10.56 tpy of acetaldehyde.

Subpart DDDD

Subpart DDDD (Plywood and Composite Wood Products MACT) applies to various wood products facility processes, including dry kilns, located at facilities that emit more than 10 tons per year of a single HAP or 25 tons per year combined HAPs.

The facility is required to comply with the initial notification requirement for Subpart DDDD and that initial notification was submitted March 19, 2008.

Subpart DDDDD

Subpart DDDDD (Industrial, Commercial, and Institutional Boilers and Process Heaters MACT) applies to boilers located at facilities that emit more than 10 tons per year of a single HAP or 25 tons per year combined HAPs.

Subpart DDDDD was vacated on June 8, 2007.

X. COMPLIANCE HISTORY**Sierra Pacific Industries, Inc. – Centralia Sawmill**

<u>Date</u>	<u>FNOV/C Number</u>	<u>Violation</u>
3/10/08	4309	Failure to log operational data for the hog fuel boiler. CEMS were not operational.
6/3/09	3319	Exceeded acrolein emission limit. The limit was based on erroneous information in the permit application.

XI. PERMIT ACTIONSInitial Permitting Actions

1. Initial Permit Application Received: June 14, 2009
2. Application Complete: September 1, 2009
3. Application Sent to EPA: September 1, 2009
4. Draft Permit Issued: March 11, 2010

- 5. Proposed Permit Issued: February xx, 2010
- 6. Final Permit Issued: February xx, 2010