

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

Southwest Clean Air Agency  
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PERMIT #: SW10-16-R2

FINAL ISSUED: September 12, 2018

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.

The maximum potential to emit (PTE) from Sierra Pacific for these air pollutants has been determined below:

<b>Pollutant</b>	<b>PTE (tpy)</b>
Nitrogen Oxides (NO <sub>x</sub> )	58.52
Carbon Monoxide (CO)	105.35
Volatile Organic Compounds (VOC)	125.41
Sulfur Dioxide (SO <sub>2</sub> )	9.68
Particulate Matter (PM)	71.25
PM smaller than 10 microns (PM <sub>10</sub> )	54.78
PM smaller than 2.4 microns (PM <sub>2.5</sub> )	30.84
Acetaldehyde	10.56
Methanol	7.00
All Hazardous Air Pollutants (HAPs)	21.18

## 8. Current Permitting Action:

This is a significant modification. This Permit incorporates Air Discharge Permit (ADP) 17-3248, which was issued since the last Title V Permit was issued. ADP 17-3248 was issued to increase dry kiln drying temperatures.

SW10-16-R2 revokes SW10-16-R1 conditional upon issuance of SW10-16-R2.

## 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 manufacturers 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 and Consent Orders:

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
<b>06-2669</b>	L-572	3/21/06	Approval to construct and operate a new green lumber sawmill.
<b>07-2753</b>	L-601	10/10/07	Approval to install a hog fuel boiler and three dry kilns. This Permit superseded ADP 06-2669.
<b>08-2799</b>	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 ADP 07-2753 in its entirety.
<b>08-2799R1</b>	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 ADP 08-2799 in its entirety.
<b>08-2799R2</b>	L-656	4/25/12	Approved the installation of a new chip bin and chipper. This Permit superseded ADP 08-2799R1 in its entirety.

17-3248	L-689	1/16/18	Approved the increase of the dry kiln drying temperature. This Permit superseded ADP 08-2799R2 in its entirety.
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## 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
- One Brunette drum chipper
- 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.
- One 0.7 MW turbine to provide power for the facility.
- 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. Baghouse, model CSL 405TR12HEI, serial #CSC3420BH, 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". The baghouse contains 405 bags, 6" by 12' in dimension providing a surface area of 7,819 ft<sup>2</sup>. The bags are constructed out of 16 oz/yd<sup>2</sup> 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 electrostatic precipitator (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 NO<sub>x</sub> concentrations and then through a multiclone followed by a Wellons two-field ESP to remove 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.

The Nebraska hog fuel boiler is a fuel cell boiler and is subject to 40 CFR 63 Subpart DDDDD (Boiler MACT). The initial notification was submitted September 13, 2011.

Opacity, NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub>, 228 ppm for CO, 0.015 gr/dscf for PM, and 25 ppm for ammonia corrected to 7% O<sub>2</sub>.

**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 thousand board feet (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 anti-stain used at the time of permitting is a three part combination: Kop-Coat WORKHORSE® III, Sawmill Penetrator A20 concentrate, and Iron FixT® 1002. 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 173-401-533(2)(i)

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 173-401-533(2)(i).

**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****P12. Excess Emissions**

[SWCAA 400-107]

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 must 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 10% 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 must be advised of the schedule.

**G8. New Source Review**

[WAC 173-400-117, WAC 173-400-700  
WAC 173-460 (effective 2/14/94)  
SWCAA 400-109, SWCAA 400-110  
SWCAA 400-111, SWCAA 400-141]

Construction or modification of an air pollution source is subject to review to ensure that applicable emission standards are met and appropriate control technology is employed. The program under which a new source or modification is reviewed depends on the type and quantity of potential air emissions associated with the project. New sources or modifications that meet the definition of a 'major stationary source' are subject to review under the Prevention of Significant Deterioration (PSD) program, which is administered by the Department of Ecology. Sources that are too small to be a major source (minor sources) are subject to review under SWCAA's new source review program. New sources or modifications that increase the emission of toxic air pollutants are subject to review under SWCAA's toxic air pollutant program, which implements the 2/14/94 version of WAC 173-460.

**G12. Portable Sources**

[SWCAA 400-110(6)]

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. 1-7 General Standards for Maximum Emissions**

[SWCAA 400-040]

SWCAA 400-040 establishes maximum emission standards for various air contaminants. These requirements apply to all emission units at the source, both EU and IEU. Pursuant to WAC 173-401-530(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 semiannual compliance certification.

**Req. 12 Emission Standards for Combustion and Incineration Units**

[SWCAA 400-050]

SWCAA 400-050 establishes 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 173-401-530(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. 13 Emission Standards for General Process Units**

[SWCAA 400-060]

SWCAA 400-060 establishes maximum PM emission standards for general process units. These requirements apply to all general process units at the source, both EUs and IEUs. Pursuant to WAC 173-401-530(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. 8-10, 14-16, 22-31, 39-45 Air Discharge Permit for Installation of new Chip Bin and Chipper**

[ADP 17-3248]

ADP 17-3248 issued for ADP application L-656 on January 16, 2018 approved the increase in the dry kiln drying temperature.

Req-8 requires the source to operate to minimize emissions.

Req-9 requires each pollution control device to 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-10 requires emission units to be maintained and operated in total and continuous conformity with emission levels and operational requirements.

Req-14 limits opacity from the Nebraska hog fuel boiler to 10%. This limit was set as part of the original Best Available Control Technology (BACT) evaluation of this source. Data from the boiler source tests has shown that 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-15 limits opacity from dry kilns to 5%. This limit was set as part of the original 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 three (3) minutes in any one hour).

Req-16 limits opacity from all other equipment to 0%. This limit was set as part of the original BACT evaluation of these sources. In SWCAA's experience, enclosed sawmill operations of green lumber, anti-stain with mist eliminator, and paved log yard with wet

suppression can easily meet the 0% opacity limit (not to be exceeded for more than three (3) minutes in any one hour).

Req-22 limits emissions from the Nebraska hog fuel boiler to the following:

NO<sub>x</sub> - 58.52 tpy, 90 ppmvd @ 7% O<sub>2</sub> (24-hr avg)

CO - 105.35 tpy, 228 ppmvd @ 7% O<sub>2</sub> (24-hr avg)

PM/PM<sub>10</sub>/PM<sub>2.5</sub> - 14.30 tpy, 0.015 gr/dscf @ 7% O<sub>2</sub> (1-hr avg) (filterable only for compliance)

Ammonia - 5.81 tpy, 25 ppm @ 7% O<sub>2</sub> (24-hr avg)

Acetaldehyde - 0.06 tpy

Acrolein - 0.012 tpy

Formaldehyde - 0.67 tpy

The limits are established based on facility source test and maximum steam flow and fuel combustion.

Req-23 limits emissions from lumber drying operations to the following:

VOC – 117.13 tpy

PM/PM<sub>10</sub>/PM<sub>2.5</sub> - 4.51 tpy

Acetaldehyde - 10.24 tpy

Acrolein - 0.16 tpy

Formaldehyde - 0.33 tpy

Methanol – 11.95 tpy

The limits are established based on emission factors from laboratory source tests, wood species dries, and temperature.

Req-24 limits emissions from anti-stain to the following:

VOC - 1.70 tpy

The limit is established based on the anti-stain MSDS and amount used.

Req-25 limits emissions from the Carothers and Son baghouse to the following:

PM/PM<sub>10</sub> (filterable) -11.26 tpy, 0.005 gr/dscf

PM<sub>2.5</sub> -2.58 tpy

The limits are established based on rated airflow of the baghouse, hours of operation, and a maximum emission concentration of 0.005 gr/dscf.

Req-26 limits emissions from the bin unloading to the following:

PM - 41.18 tpy

PM<sub>10</sub> - 24.71 tpy

PM<sub>2.5</sub> - 9.45 tpy

The limits are established based on types of material unloaded and SWCAA emission factors.

Req-27 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-28 requires the Carothers and Son baghouse, anti-stain system, Nebraska hog fuel boiler, and dry kilns to be discharged vertically. Any device that obstructs or prevents vertical discharge while in operation is prohibited.

Req-29 requires the Nebraska hog fuel boiler to only be fired on clean wood products.

Req-30 requires a flow meter to be installed to measure ammonia usage in the SNCR system.

Req-31 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-39 limits the lumber approved for drying in the kilns to Douglas fir, western hemlock, and Sitka 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 data for the specified wood species; and
- (c) Expected quantity of lumber of that species to be dried.

Req-40 limits the maximum temperature of lumber drying to 200°F on a 24-hr average. This limit was established to assure excess VOCs and TAPs are not emitted.

Req-41 requires the dry kiln doors to remain closed during the drying cycle. This is to assure emissions are emitted vertically through the stack.

Req-42 requires wood waste bins to be equipped with full length side wind barriers and curtains on the end. This is to prevent fugitive emissions during bin unloading.

Req-43 requires all VOC containing materials to be collected in an enclosed container to prevent fugitive emissions.

Req-44 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.

Req-45 establishes operating parameters for the Nebraska hog fuel boiler during startups.

#### **Req. 11, 17-21, 32-38 Boiler MACT Requirements**

[40 CFR §63.7500]

Req-11 requires the boilers to operate in a manner consistent with safety and good air pollution control practices to minimize emissions.

Req-17 through Req-21 limit emissions from the Nebraska hog fuel boiler to the following, except during periods of startup and shutdown:

<b>Emission</b>	<b>Emission Limit</b>
Filterable PM	2.0E-02 lb per MMBtu of heat input
	5.5E-02 lb per MMBtu of steam output
Total Selected Metals (TSM)	5.8E-03 lb per MMBtu of heat input
	1.6E-02 lb per MMBtu of steam output
CO	1,100 ppm by volume on a dry basis corrected to 3 percent oxygen (3-hr run)
	2.4 lb per MMBtu of steam output
Hydrogen Chloride (HCl)	2.2E-02 lb per MMBtu of heat input
	2.5E-02 lb per MMBtu of steam output
Mercury (Hg)	5.7E-06 lb per MMBtu of heat input
	6.4E-06 lb per MMBtu of steam output

Reference test methods as specified in Table 5 of Subpart DDDDD.

Req-32 requires a one-time energy assessment.

Req-33 requires the Permittee to demonstrate compliance using performance stack testing, fuel analysis, or continuous monitoring system.

Req-34 establishes work practice standards for startup and shutdown for boilers. It establishes different definitions of startup with which the Permittee must comply.

Req-35 establishes operating limits depending on how the facility wishes to demonstrate compliance.

Req-36 requires the Permittee to install, operate and maintain an oxygen analyzer system or install, certify, operate and maintain continuous emission monitoring systems for CO and oxygen.

Req-37 requires the Permittee to install, operate and maintain continuous monitoring systems (CMS) to measure the operating load or steam generation.

Req-38 requires the Permittee to install, operate and maintain each CMS according to the procedures in 40 CFR 63.7525(d)(1) through (5).

## **VI. EXPLANATION OF OBSOLETE AND FUTURE REQUIREMENTS**

### **1. Obsolete Air Discharge Permits**

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

ADP 06-2669 was issued March 21, 2006 for ADP application L-572. ADP 06-2669 approved the operation of a new green sawmill. This Permit was superseded by ADP 07-2753.

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

ADP 08-2799 was issued July 17, 2008 for ADP application L-618. ADP 08-2799 approved the installation of three new dry kilns, increased kiln throughput, increased HAP emissions, increased NO<sub>x</sub> emissions, increased start up emissions, increased anti-stain usage, changed the NO<sub>x</sub> control from urea to anhydrous ammonia and incorporated the addition of bin unloading curtains. This Permit was superseded by ADP 08-2799R1.

ADP 08-2799R1 was issued January 21, 2010 for ADP application L-635. ADP 08-2799R1 modified the permit to correct an erroneously established emission limit. Also, the anti-stain product was updated. This Permit was superseded by ADP 08-2799R2.

ADP 08-2799R2 was issued April 25, 2012 for ADP application L-656. ADP 08-2799R2 approved the installation of a new chip bin and chipper. This Permit was superseded by ADP 17-3248.

## **2. Non-Applicable Requirements**

Under the authority of section 112(r) of the Federal 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**

None identified.

## **VII. EXPLANATION OF MONITORING TERMS AND CONDITIONS**

### **M1. Visible Emissions Monitoring**

The applicable requirements cited in this monitoring section are general requirements drawn from SWCAA 400 and ADP 17-3248. 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 survey of EU-1, EU-2, EU-3, EU-4, and EU-5 to identify potential visible emissions. If visible 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 SWCAA 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 SWCAA 400 and ADP 17-3248. 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 survey of EU-1, EU-2, EU-3, EU-4, and EU-5 to identify potential excess particulate matter emissions.

### **M3. Fugitive Emissions Monitoring**

The applicable requirements cited in this monitoring section are requirements drawn from SWCAA 400 and ADP 17-3248. ADP 17-3248 requires that reasonable precautions must be taken to prevent and minimize fugitive emissions. These precautions include utilizing equipment such as street sweepers and watering trucks on facility roads and venting dry kilns through elevated stacks. The use of the street sweepers and watering trucks must 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 SWCAA 400 and ADP 17-3248. ADP 17-3248 requires that operations that cause or contribute to a nuisance odor must 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, SWCAA 400-040(7), and ADP 17-3248. SWCAA 400-040(7) contains 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. The applicable requirements are also utilized to assure compliance with Compliance Assurance Monitoring (CAM) requirements.

SWCAA 400-040(7) prohibits 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 semiannual certification is deemed sufficient to assure compliance.

ADP 17-3248 Section 2.2.13, 14, and 19 require the Permittee to install specific equipment. Consequently, a general regime of periodic monitoring has been deemed ineffective for the purposes of assuring compliance. SWCAA has required semiannual certification that the monitoring equipment is installed and maintained.

#### **M6. SO<sub>2</sub> Emission Standard**

The applicable requirement cited in this monitoring section is drawn from, SWCAA 400-040(6), and ADP 17-3248. SWCAA 400-040(6) limits the emission of SO<sub>2</sub> from combustion sources to a maximum of 1000 ppmv corrected to a specified O<sub>2</sub> percentage. The hog fuel 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 ppmv SO<sub>2</sub> while firing on these fuels. Monitoring has therefore been limited to certification of fuel type.

#### **M7. Monitoring of Hog Fuel Boiler Operations**

The applicable requirement cited in this monitoring requirement is drawn from ADP 17-3248. Proper maintenance of the boiler assures clean and efficient operations.

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

#### **M8. Emissions from Lumber Drying**

The applicable requirement cited in this monitoring requirement is drawn from ADP 17-3248. Compliance with the specified emission limits are calculated based on lumber throughput and SWCAA Default August 2009 emission factors derived from emission testing various types of wood. A maximum temperature is specified for the lumber dry kilns in order to prevent fires and/or minimize smoke from partial combustion of exhaust gases.

**Hemlock Drying**

Throughput = 90,000,000 Board Feet  
 Maximum Kiln Temperature = 200 ° F

Pollutant	Emission Factors					Emission Factor Source
	Equation	lb/MMBf	lb/hr	lb/yr	tpy	
PM		51	0.524	4,590.00	2.30	Nov. 1998: Horizon Eng. at OSU
PM <sub>10</sub>		51	0.524	4,590.00	2.30	Nov. 1998: Horizon Eng. at OSU
PM <sub>2.5</sub>		51	0.524	4,590.00	2.30	Nov. 1998: Horizon Eng. at OSU
VOC	See discussion	281	2.887	25,290.00	12.65	SWCAA Default August 2009
Methanol	2.83*(T) - 457	109.0	1.120	9,810.00	4.91	SWCAA Default August 2009
Formaldehyde	0.064*(T) - 10.8	2.00	0.021	180.00	0.09	SWCAA Default August 2009
Acetaldehyde		113	1.161	10,170.00	5.09	SWCAA Default August 2009
Propionaldehyde		1.2	0.012	108.00	0.05	SWCAA Default August 2009
Acrolein		1.75	0.018	157.50	0.08	SWCAA Default August 2009
Total TAPs				20,425.50	10.21	
Total HAPs				20,425.50	10.21	

(T) is in units of degrees Fahrenheit in the equations presented in the table above.

**Douglas Fir Drying**

Throughput = 210,000,000 Board Feet  
 Maximum Kiln Temperature = 200 ° F

Pollutant	Emission Factors					Emission Factor Source
	Equation	lb/MMBf	lb/hr	lb/yr	tpy	
PM		21	0.503	4,410.00	2.21	Nov. 1998: Horizon Eng. at OSU
PM <sub>10</sub>		21	0.503	4,410.00	2.21	Nov. 1998: Horizon Eng. at OSU
PM <sub>2.5</sub>		21	0.503	4,410.00	2.21	Nov. 1998: Horizon Eng. at OSU
VOC	See discussion	995	23.853	208,950.00	104.48	SWCAA Default August 2009
Methanol	1.45*(T) - 223	67	1.606	14,070.00	7.04	SWCAA Default August 2009
Formaldehyde	0.0495*(T) - 7.6	2.3	0.055	483.00	0.24	SWCAA Default August 2009
Acetaldehyde		49	1.175	10,290.00	5.15	SWCAA Default August 2009
Propionaldehyde		0.53	0.013	111.30	0.06	SWCAA Default August 2009
Acrolein		0.73	0.018	153.30	0.08	SWCAA Default August 2009
Total TAPs				25,107.60	12.55	
Total HAPs				25,107.60	12.55	

(T) is in units of degrees Fahrenheit in the equations presented in the table above.

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 ADP 17-3248. These requirements specify numerical parameters for the proper operation of the facility's baghouse and bin unloading operations.

Emission factors for PM and PM<sub>10</sub> are based on information from EPA AP-42 Table 10.4-2 (7/79). The original factors provided in Table 10.4-2 have been modified subsequent to engineering review by SWCAA. The modifications are due to variations in material and emission controls. The resulting emission factors applicable to this facility are provided below. An additional emission reduction of 20% has been applied to the base emission factors for sawdust, chips and bark transfer due to the use of 3-sided shrouding. PM<sub>2.5</sub> emissions are estimated to be 23% of PM emissions (EPA PM Calculator Version 2.0 - SCC 30700899).

These emission factors are currently used because no other emissions factors are available to summarize emissions from this type of process. Sierra Pacific has agreed to participate in a test program with SWCAA in the future to develop emissions factors for wood waste storage and transfer processes. Emission factors developed from any such test program will be evaluated for use at this facility in lieu of the current factors.

Hog fuel mix is typically one load of bark, one load of green sawdust and four loads of shavings. A separate hog fuel unloading factor is not established in this permit.

Controlled Emission Factors			
Material	Pollutant	For Dry Wood (lb/bdt)	For Green Wood (lb/bdt)
Sawdust	PM	0.400	0.240
	PM <sub>10</sub>	0.240	0.144
	PM <sub>2.5</sub>	0.092	0.055
Shavings	PM	0.520	0.320
	PM <sub>10</sub>	0.312	0.192
	PM <sub>2.5</sub>	0.120	0.074
Chips	PM	0.160	0.080
	PM <sub>10</sub>	0.096	0.048
	PM <sub>2.5</sub>	0.037	0.018
Bark	PM	0.520	0.120
	PM <sub>10</sub>	0.312	0.072
	PM <sub>2.5</sub>	0.120	0.028

To determine the potential to emit, bark, sawdust and chips use the green factor and shavings uses the dry factor. Approximately 5% of the chips will be dry.

Material	Throughput (bdt)	Pollutant	Controlled Emission Factors (lb/bdt)	Emissions (tpy)	Emissions (lb/hr)
Sawdust	25,000	PM	0.240	3.00	
		PM <sub>10</sub>	0.144	1.80	
		PM <sub>2.5</sub>	0.055	0.69	
Shavings	66,686	PM	0.520	17.34	
		PM <sub>10</sub>	0.312	10.40	
		PM <sub>2.5</sub>	0.120	4.00	
Chips	302,620	PM	0.080	12.10	

(green)		PM <sub>10</sub>	0.048	7.26	
		PM <sub>2.5</sub>	0.018	2.72	
Chips	15,930	PM	0.160	1.27	
(dry)		PM <sub>10</sub>	0.096	0.76	
		PM <sub>2.5</sub>	0.037	0.29	
Bark	129,853	PM	0.120	7.79	
		PM <sub>10</sub>	0.072	4.67	
		PM <sub>2.5</sub>	0.028	1.82	
Total		PM		41.50	9.47
		PM <sub>10</sub>		24.89	5.68
		PM <sub>2.5</sub>		9.52	2.17

M9 is designed to minimize emissions from EU-2.

#### **M10. Anti-Stain Monitoring**

The applicable requirements cited in this monitoring requirement are drawn from ADP 17-3248. These requirements specify operational parameters for the reduction in fugitive emissions from open containers and to update SWCAA in the event of a new product.

M10 is designed to help calculate emissions from the facility's anti-stain system, EU-5.

#### **M11. Particulate Matter Emission Testing**

The applicable requirements cited in this monitoring section are drawn from ADP 17-3248. A schedule of emission testing to confirm compliance with the requirements is provided. Testing is to be conducted in accordance with ADP 17-3248, Appendix D which prescribes sampling points, testing protocols, data reduction, and reporting formats.

M11 is intended to supplement the routine compliance monitoring provided in M2. M11 requires testing for EU-2.

#### **M12. Lumber Drying Emission Testing**

The applicable requirement cited in this monitoring section is drawn from ADP 17-3248. ADP 17-3248 Section 2.4.35 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 the ADP 17-3248, Appendix C, which 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 ADP.

If no testing company with the ability to test emissions from wood drying is available, the facility should submit to SWCAA a letter proposing an alternate test schedule. This alternate test schedule must be approved by SWCAA.

M12 is designed to provide validation of existing emission factors through periodic testing for EU-4.

### **M13. Boiler Emission Testing**

The applicable requirement cited in this monitoring section is drawn from 40 CFR 63 and ADP 17-3248. ADP 17-3248 Section 2.4.34 establish a schedule of emission testing to confirm compliance with the requirement. Testing is to be conducted in accordance with ADP 17-3248 Appendices A and B which prescribe sampling points, testing protocols, data reduction, and reporting formats. 40 CFR 63 establishes initial and ongoing performance requirements and schedules.

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 40 CFR 60 and ADP 17-3248. ADP 17-3248 Section 2.3.27 and 2.4.34 establish requirements for continuous emission monitoring on the hog fuel boiler. Monitoring is to be conducted in accordance with 40 CFR 60 and ADP 17-3248 Appendix A and B.

M14 is designed to document emissions through the use of CEMS for EU-3.

### **M15. Ongoing Compliance Demonstration Requirements**

The applicable requirements cited in this monitoring section are drawn from 40 CFR 63 Subpart DDDDD. 40 CFR 63 requires ongoing performance tests and tune-ups, fuel analysis and requirements to introduce new fuels, and startup and shutdown work practice standards.

M17 is designed to demonstrate compliance with the Boiler MACT for EU-3.

### **M16. Fuel Analyses for Chlorine, Mercury and Total Suspended Metals (TSM)**

The applicable requirements cited in this monitoring section are drawn from 40 CFR 63 Subpart DDDDD. If the Permittee chooses to demonstrate compliance with fuel analysis, 40 CFR 63 establishes fuel analysis procedures, a site-specific fuel monitoring plan and a timeline to demonstrate compliance.

The facility does not have to comply with this monitoring requirement if they choose not to demonstrate compliance with fuel analysis.

M18 is designed to demonstrate compliance with the Boiler MACT for EU-3.

**M17. Boiler Operating Limits**

The applicable requirements cited in this monitoring section are drawn from 40 CFR 63 Subpart DDDDD. 40 CFR 63 establishes site-specific operating limits and requires subsequent performance tests.

M19 is designed to demonstrate compliance with the Boiler MACT for EU-3.

**M18. General Operating Requirements for CMS**

The applicable requirements cited in this monitoring section are drawn from 40 CFR 63 Subpart DDDDD. 40 CFR 63 establishes operating, monitoring and recordkeeping practices and procedures for each CMS. The CMS have specific requirements for repair and maintenance, and when the information gathered can be used. It establishes the meaning of a deviation for the CMS down time.

M20 is designed to demonstrate compliance with the Boiler MACT for EU-3.

**M19. CMS Performance Evaluations**

The applicable requirements cited in this monitoring section are drawn from 40 CFR 63 Subpart DDDDD. 40 CFR 63 establishes CMS performance evaluation requirements and timeline.

M21 is designed to demonstrate compliance with the Boiler MACT for EU-3.

**M20. CO and Oxygen Monitoring**

The applicable requirements cited in this monitoring section are drawn from 40 CFR 63 Subpart DDDDD. 40 CFR 63 requires the permittee to install, operate and maintain an oxygen analyzer system or maintain a CEMS for CO and oxygen. It explains how data should be recorded and reduced. It establishes the meaning of a deviation for the CMS down time.

M22 is designed to demonstrate compliance with the Boiler MACT for EU-3.

**M21. Site-specific Stack Test Plan**

The applicable requirements cited in this monitoring section are drawn from 40 CFR 63 Subpart DDDDD. 40 CFR 63 establishes site-specific stack test plan requirements.

M23 is designed to demonstrate compliance with the Boiler MACT for EU-3.

**M22. Site-specific Monitoring Plan**

The applicable requirements cited in this monitoring section are drawn from 40 CFR 63 Subpart DDDDD. 40 CFR 63 establishes site-specific monitoring plan requirements.

M24 is designed to demonstrate compliance with the Boiler MACT for EU-3.

**M23. Monitoring Compliance with Operating Limits**

The applicable requirements cited in this monitoring section are drawn from 40 CFR 63 Subpart DDDDD. 40 CFR 63 establishes operating conditions of the point source and control equipment. It requires recording of startup, shutdown, standby and transient flame stabilization times and durations and fuel types and combustion rates.

M25 is designed to demonstrate compliance with the Boiler MACT for EU-3.

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

This recordkeeping section is taken directly from ADP 17-3248, 40 CFR 63, and WAC 173-401-615(2). Recordkeeping requirements were separated into Sections (a) through (e) 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.

**K3. Boiler Recordkeeping**

This recordkeeping section is taken directly from 40 CFR 63. Recordkeeping requirements were separated into Sections (a) through (g) to organize the requirements.

**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 must 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 semiannual 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. Semiannual 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 semiannual basis. Semiannual 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 semiannual report provides information on the status of all required monitoring. The actual results (e.g. 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 WAC 173-401-630(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 requirements include the submission of a boiler grate cleaning schedule and dry kiln operations. The report is designed to collect data to determine emissions and 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 15<sup>th</sup> for the previous calendar year as provided in SWCAA 400-105. WAC 173-400-105 sets a later emission inventory due date of April 15<sup>th</sup>. A complete emissions inventory includes quantification of emissions from all emission units at the facility.

**R6. Source Test Reports**

This reporting section is taken from SWCAA 400-106(1)(g), ADP 17-3248 Section 2.5.44, Appendices A, B, C, D. The Permittee is required to report test results within 45 days of test completion to allow timely review by SWCAA.



**R7. Monthly Records**

This reporting section is taken from ADP I7-3248 Section 2.5.38. The Permittee is required to submit monthly 12-month rolling totals of NO<sub>x</sub> and CO emissions.

**R8. MACT Records – Plywood MACT (Subpart DDDD)**

40 CFR 63 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 tpy of a single HAP or 25 tpy 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.

**R9. MACT Records – Boiler MACT (Subpart DDDDD)**

40 CFR 63 Subpart DDDDD (Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters MACT) applies to industrial, commercial, or institutional boilers or process heaters located at facilities that emit more than 10 tpy of a single HAP or 25 tpy combined HAPs.

For specific subparts for which SWCAA has not been delegated implementation and enforcement authority by EPA, all monitoring, reporting, or recordkeeping that is required to be sent to the EPA Administrator must be sent to both SWCAA and EPA.

Included are Notifications and Compliance Reports and how to submit via electronic reporting.

The facility is required to comply with the initial notification requirement for Subpart DDDDD and that initial notification was submitted September 13, 2011.

**X. COMPLIANCE HISTORY****Sierra Pacific - Centralia**

<u>Date</u>	<u>NOV Number</u>	<u>Violation</u>
3/10/08	4309	Failure to log operational data for boiler
6/3/09	3319	Exceeded acrolein emission limit
8/24/10	3325	Exceeded ammonia emission limit
4/27/11	3329	Did not submit annual Title V report on time.
7/2/14	5180	Exceeded ammonia emission limit
11/3/15	5827	Late source test report submittal

**XI. APPENDICES**

## 1 Appendix A - Emission Testing Requirements - Nebraska Boiler

Appendix A contains the method by which the Nebraska hog fuel boiler should be emission tested to determine compliance.

## 2 Appendix B - Emission Testing Requirements - Lumber Drying

Appendix B contains the method by which the emissions from the lumber drying operations can be quantified. This is not a compliance test.

## 3 Appendix C - Emission Testing Requirements – Carothers and Son Baghouse

Appendix C contains the method by which the Carothers and Son baghouse should be emission tested to determine compliance.

## 4 Appendix D - Emission Monitoring Requirements – Nebraska Boiler

Appendix D contains the method by which the Nebraska hog fuel boiler should be tuned to assure proper operation in years when the boiler is not emission tested.

## 5 Appendix E – Boiler MACT Emission Testing Requirements – Nebraska Boiler

Appendix E contains the method by which the Nebraska hog fuel boiler should be emission tested to determine compliance with the Boiler MACT.

**XII. PERMIT ACTIONS**Initial Permitting Actions: SW10-16-R0

1.	Initial Permit Application Received:	July 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:	April 22, 2010
6.	Final Permit Issued:	June 23, 2010

Previous Permitting Actions: SW10-16-R1

- |    |   |                  |
|----|---|------------------|
| 1. | Notice to Submit Application for Permit Renewal | November 7, 2013 |
| 2. | Initial Permit Renewal Application:             | May 29, 2014     |
| 3. | Renewal Application Complete:                   | July 14, 2014    |
| 4. | Draft Permit Issued:                            | April 25, 2017   |
| 5. | Proposed Permit Issued:                         | June 12, 2017    |
| 6. | Final Permit Issued:                            | August 14, 2017  |

This Permit was revoked by SW10-16-R2.

Current Permitting Actions

- |    |  |                    |
|----|--|--------------------|
| 1. | Initial Permit Modification Application: | April 19, 2018     |
| 2. | Modification Application Complete:       | May 3, 2018        |
| 3. | Draft Permit Issued:                     | May 9, 2018        |
| 4. | Proposed Permit Issued:                  | July 17, 2018      |
| 5. | Final Permit Issued:                     | September 12, 2018 |