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U.S. EPA, Region 9

**Permit Application for a Title V Permit
Sierra Pacific Industries,
Sonora Division**

County of Tuolumne

JAN 18 2012

Agriculture
Weights & Measures
Air Pollution Control

Sonora, California

January 16, 2012

Submitted to:
Tuolumne County
Air Pollution Control District
22365 South Airport Road
Sonora, CA 95370

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Part 1
Facility Description
with
Process Flow Diagram

Description of Facility and Process Diagram

The following facility description is for informational purposes only and does not contain any applicable federally enforceable requirements.

Sierra Pacific Industries (SPI) owns and operates a lumber mill in Sonora, California, for the production of finished 4/4", 5/4" and dimensional lumber. There has been a sawmill on the Sonora site since the 1930's.

Raw logs from tree harvesting operations are trucked to the site and stacked in large log decks in the log yard. Logs are continuously watered for quality control purposes. Wet logs are transported to a "ring" debarker for mechanical removal of bark. The debarked logs then go to a large circular saw where they are cut to length, depending upon the diameter and characteristics of the log.

Unprocessed bark from the debarking operation is transferred to the bark bins. With the exception of cedar bark, the majority of the bark from other logs is transported to Sierra Pacific's Keystone operation. Cedar bark is sold to outside customers. Spillage from the debarker or from handling the logs becomes fuel for the boiler. Log yard wood waste is fed to the sawmill hog where a hammer mill device reduces the size of the waste to fuel size for the boiler (2" to 3").

1. Log Yard

The log yard is a source of fugitive dust due to continual truck and loader activity. Residual spray from watering log decks helps control dust in some areas. A water truck is used in other areas of the log yard to control fugitive dust.

2. Sawmill Operation

The debarked and chopped logs are conveyed to the sawmill building, where various sawing and sizing operations occur. All of the log and lumber processing steps occurring inside the sawmill building involve the processing of "green" wood, defined as having a moisture content of approximately 55%. Sawing and sizing of green wood produces little, if any, suspended particulate emissions.

The first machine center inside the sawmill building is the headrig. A large band saw cuts the perimeter of the log lengthwise, shaping the log into a square cross section, called a cant. The two pieces falling off from each side of the cant are called slabs.

The cants are processed through the gang sawing operation, consisting of multiple saws producing rough cut boards. The slabs resulting from the previous band sawing operation go to the resaw to produce smaller boards. All boards are then squared in preparation for the edger. The edger cuts the edges from the boards, producing a nearly final product.

3. Trimming Operation

Edged boards are then transferred to the trimmer for trimming of irregular ends and cutting of the boards to shorter lengths. At this point, it becomes rough cut lumber. Boards are then sorted into bins and stacked, placing stickers between each row to aid in the drying process. The stacked boards are transported to the kilns for drying.

Waste chunks and pieces are fed by conveyor back to a chipper, located inside the sawmill building. The chipper reduces wood waste to chip size. The chipper also receives board length edging from the edger. Chips from the chipper are conveyed to shaker screens, where chips and sawdust are separated. Chips are transferred to the chip bins for storage prior to sale to customers for landscaping and other uses. Sawdust is conveyed to a stacker conveyor and ultimately to a bin. This sawdust is for sale to customers. Any sawdust not contained is collected and becomes boiler fuel. Handling of green sawdust does not appear to constitute a suspended particulate emission source.

4. Dry Kilns

The dry kilns are used to dry green lumber from the sawmill. The kilns consist of large, metallic chambers heated with indirect steam heat from the boiler. Stacked lumber from the mill is pushed into the kilns. Heated air is circulated through the stacks and exhausted through square shaped vents with closeable covers on the roof of each kiln. Depending upon the species, a full drying cycle can take up to 120 hours. Kiln operations result in no visible emissions from the kiln vents.

5. Planer

Dried lumber is transported from the kilns to the planer, in the planer building, where a smooth surface is created on the boards and boards are graded for quality. The planing operation creates a wood shaving, which is captured and exhausted through a large overhead duct to dual cyclones and dust collection system located outside the building. No fugitive emissions result from planer operation unless a malfunction occurs in the exhaust system.

Planed wood is then conveyed to multiple trim saws that cut the boards to specific lengths. The trim saws are contained in a hooded enclosure and sawdust drops to a conveyor and is transported to enclosed bins.

6a. Dual Cyclones

Wood shavings and hogwood are blown to dual cyclones outside the planer building. Larger wood shavings go to (one of two) shavings bins, while finer particles go to a dust collection system.

6b. Dust Collection System

A suction fan pulls dust discharge off the top of 2 shavings and one chip cyclone. The material is then discharged into a Western Pneumatic baghouse, which filters fine particulates. Dust particles are continuously suctioned from the 630 polyester bags and diverted to a cleaning cyclone on top of the bins. All 4 cyclones have an airlock system between the cyclones and the bins. The system is equipped with a pressure differential gauge to notify an operator when the bags require cleaning.

7. Shavings Bins

The shavings bins are elevated to allow trucks to drive under the bins to be loaded with wood shavings and dust. Two large discharge gates open to allow shavings and dust to free fall into the truck bed. A water spray system is used to control fugitive dust from the loading operation. The shavings bins are a fugitive dust source.

Chunks and trim ends from the trim saws are fed to a hammermill-type hog for size reduction. The hog is exhausted to a large single cyclone atop the shavings bins. The cyclone exhaust stack is a typical stub design exhausting horizontally. Material from the cyclone discharges by gravity into the shavings bins.

8. Boiler, Zurn

The Sonora lumber mill facility utilizes a single wood fired Zurn biomass boiler. No major modifications have been performed to the boiler since installation. A steam turbine was installed in 2001, with the capability of generating up to 7.5 megawatts/hour of electricity. It is estimated that 19% of this generation is needed to operate the boiler, with the remainder available for mill use or sold offsite. During periods that the mill is down, up to 6 megawatts/hour are available to sell to PG&E. The boiler has the potential for 110MMBTU/hour. The goal for boiler output is to remain consistent, while demand for steam from the kilns reduces that available to the steam turbine.

Moisture content of wood waste fuel averages 55%. Fuel samples are taken every 8 hours from the fuel conveyor at the feeders for determination of moisture content. When kilns are brought on-line, a spike in steam demand occurs, causing some variability in boiler operation. Fuel is randomly mixed in the yard by the pushing and scooping action of the front-end loaders and other equipment. No fuel mixing equipment is utilized on site. No heating or other treating of fuel occurs. Fuel is ultimately conveyed to the fuel house, which is enclosed on three sides.

Wood fuel is transferred from the fuel house on a conveyor, and is augured to one of 3 feed boxes just outside the boiler firewall. From the feed boxes, fuel is conveyed into the boiler firebox by 3 augers. An "overfire" fan then disperses this material, front to back, over 3 fire grates. The fuel feed is controlled by regulating the speed of the auger.

Bottom ash falling through small perforations in the grate consists primarily of dirt, sand and ash. This material is conveyed to a containment area where it is sprayed with water to control dust emissions.

Three separate fans regulate combustion air and draft in the boiler; a forced air draft fan, an induced draft fan, and a cinder re-injection fan. Most of the combustion air is forced draft under-fire air (under the grate). A small percentage of combustion air is over-fire air, and enters the boiler with re-injected cinders through five separate nozzles. This air is preheated.

Particulate emissions from the boiler are controlled by a single multi cone collector and an electrostatic precipitator (EPS). The ESP reduces emissions below 20% opacity. Exhaust then goes through a conventional stack into the atmosphere.

Fly ash dust collected by the multicones is evacuated through a screw to an outside bottom ash containment area. Water spray is utilized to control dust, which freefalls from the auger onto the bottom of the containment area.

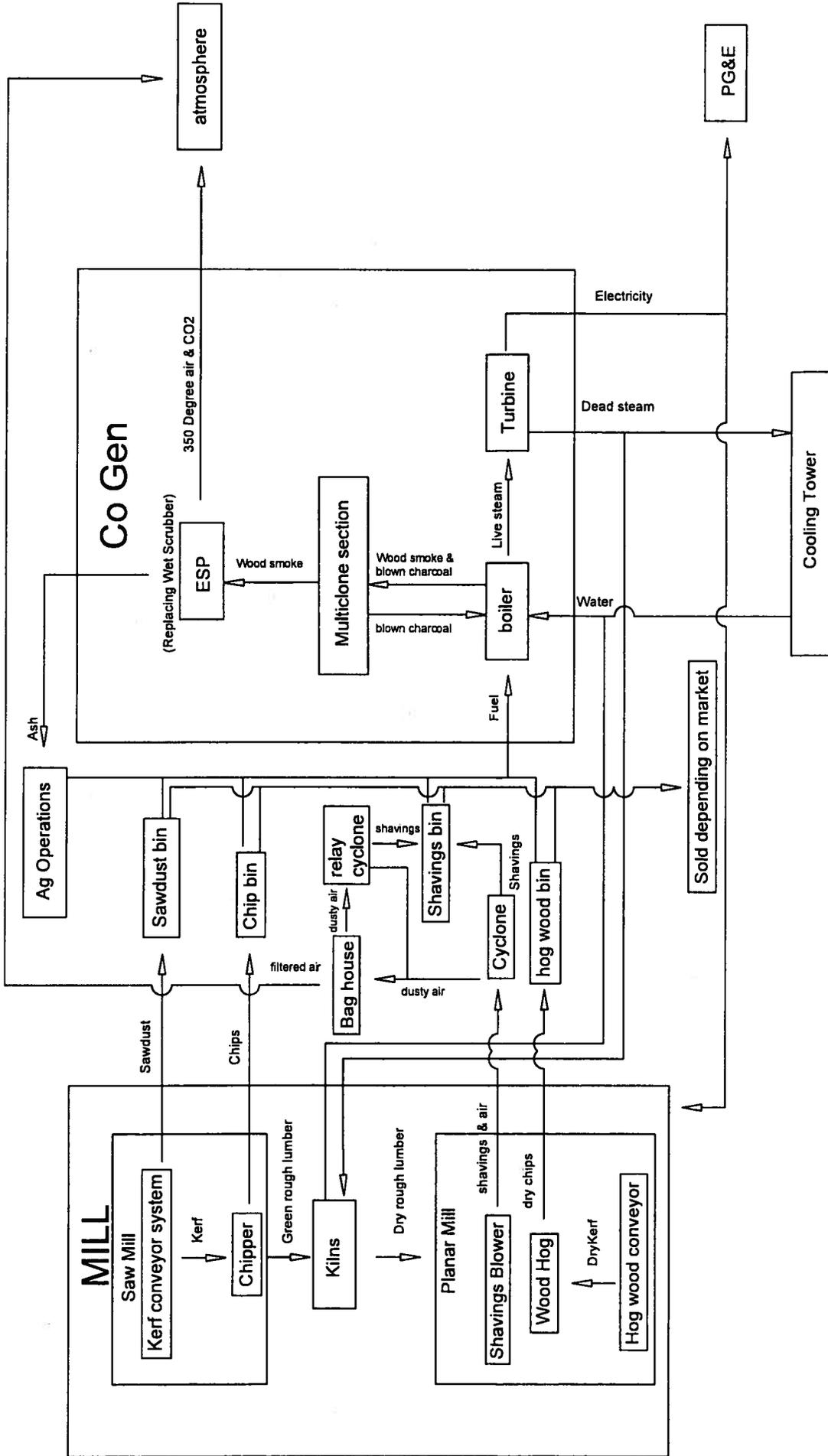
Cold startups occur approximately once or twice per year after downtime for boiler maintenance. Lumber is manually placed on the boiler grate and rags soaked with diesel fuel are used to ignite the lumber. Cold startups result in dense smoke for a short period of time. The TCAPCD is always notified by SPI prior to a smoke-producing event.

No auxiliary fuel is used to heat the boiler firebox prior to startup. Boilers are of the water tube design.

9. Gasoline and Diesel Fuel Dispensing Equipment

Company vehicles are fueled on site with gasoline or diesel fuel. The 10,000 gallon gasoline aboveground storage tank is equipped with a vent pipe and a pressure relief valve. The tank is mounted inside a concrete containment structure.

There is a 20,000 gallon diesel tank at the Cat Shop for fueling log yard equipment. There are also 2-10,000 gallon diesel tanks located at the truck shop to accommodate the log trucks. There are concrete containment areas for each of these tanks, also.



Part 2
Stationary Source
Summary Forms

STATIONARY SOURCE SUMMARY

(FORM 507-A1)

DISTRICT: Tuolumne County Air Pollution Control District

COMPANY NAME: Sierra Pacific Industries, Sonora Division

DISTRICT USE ONLY

District ID:

Application #:

Application Received:

Application Filing Fee:

Application Deemed Complete:

I. FACILITY IDENTIFICATION

1. Facility Name: Sierra Pacific Industries, Sonora Division
2. Four digit SIC Code: 2421 EPA Plant ID: _____
3. Parent Company (if different than Facility Name): _____
4. Mailing Address: Box 247 Standard, CA 95373
5. Street Address or Source Location: I4980 Camage Ave, Sonora CA 95370
6. UTM Coordinates (if required): _____
7. Source located within: 50 miles of the state line Yes No
50 miles of a Native American Nation Yes No Not Applicable
8. Type of Organization: Corporation Sole Ownership Government Partnership Utility Company
9. Legal Owner's Name: Sierra Pacific Industries
10. Owner's Agent Name (if any): Ray Kapahi (916-687-8352) – Consultant to Sierra Pacific Industries.
11. Responsible Official: Ryan Land , Area Manager
12. Plant Site Manager/Contact: Ryan Land Telephone # 209-532-7141:
13. Type of facility: Wood Products Manufacturing:
14. General description of processes/products: Log processing, sawmill, planing, drying of dimensional lumber and power generation using biomass fired 7.1 MW cogeneration plant
15. Does your facility store, or otherwise handle, greater than threshold quantities of any substance on the Section 112(r) List of Substances and their Thresholds (see attachment A)? Yes No
16. Is a Federal Risk Management Plan [pursuant to Section 112(r)] required? Not Applicable Yes No
(If yes, attach verification that Risk Management Plan is registered with appropriate agency or description of status of Risk Management Plan submittal.)

TOTAL STATIONARY SOURCE EMISSIONS (FORM 507-B)

DISTRICT: Tuolumne County Air Pollution Control District

DISTRICT USE ONLY

COMPANY NAME: Sierra Pacific Industries

DISTRICT ID:

FACILITY NAME: Sonora Division

I. TOTAL STATIONARY SOURCE EMISSIONS

Provide a brief description of operating scenario : Normal saw mill operations involving log debarking, sawing, planing and cogeneration plant operation.

POLLUTANT* (name)	EMISSIONS (tons per year)	PRE-MODIFICATION EMISSIONS (tons per year)	EMISSIONS CHANGE (tons per year)
ROG/VOC	10	Not Applicable	Not Applicable
NOx	165	Not Applicable	Not Applicable
SO2	25	Not Applicable	Not Applicable
PM-10 (includes fugitive emissions)	53	Not Applicable	Not Applicable
CO	245	Not Applicable	Not Applicable
Single HAP	< 1.50 Attached Table 4	Not Applicable	Not Applicable
Total HAPs	7.47 See Attached Table 4	Not Applicable	Not Applicable

* Emissions for all pollutants that the source is major for and all regulated air pollutants must be reported. See Attachment A.

Table 1
Comparison of Annual Potential to Emit (PTE) Emissions with
Requested Permit Limits
Sierra Pacific Industries, Sonora Division

Zurn Boiler Rating	110	<i>mmbtu/hr</i>
Maximum Annual Operating Hours	8,760	<i>hrs/yr</i>
Boiler Capacity Factor	100.0%	
Pollutant		
	Potential to Emit	
	<i>(lbs/hr)</i>	<i>(tons/yr)</i>
	<i>(note 1)</i>	<i>(note 2)</i>
	Permit Limit	
	<i>(lbs/hr)</i>	<i>(tons/yr)</i>
CO	146.50	641.7
NOx	35.90	157.2
PM-10 (Boiler) ³	46.8	205.0
PM-10 (Fugitive) See Table 3	3.45	12.16
Total PM-10	50.3	217.1
SO ₂	0.02	0.1
VOC/THC	1.90	8.3
Notes		
1. lbs/hr emissions of CO, NOx, PM-10, VOC and SO2 based on the maximum measured emission rates as reported in source tests data from 2000, 2003, 2006 and 2008 Tests. Summary attached (Table 2).		
2. tons/yr [(lbs/hr) x (8,760hrs/yr)] / [2000 lbs/ton]		
3. Source tests for boiler PM are based on pre-installation of the ESP.		

Table 2
Summary of Source Tests on Zurn Biomass Boiler
Sierra Pacific Industries, Sonora Division

Source Test	CO (lbs/hr)	NOx (lbs/hr)	PM-10 (lbs/hr)	SO2 (lbs/hr)	VOC/THC (lbs/hr)
2008	146.5	35.9	46.8	0.02	1.9
2006	47	31.2	36.7	Not Measured	Not Measured
2003	52.5	37.8	31.5	0.27	3.79
2000	30	22.63	15.2	Not Measured	0.11

Table 3
Daily and Annual PM-10 Fugitive Emissions from Saw Mill and
Material Handling
Sierra Pacific Industries, Sonora Division

Source	Number of Emission Units	Throughput (ton/hr)	Emission Factor (lbs/ton)	PM-10 Emissions		
				(lbs/hr)	(lbs/day)	(tons/yr)
Fuel Transfer System						
4 Truck Dump (note 3)	1	12.5	0.024	0.300	7.20	1.31
4 Conveyors	7	12.5	0.005	0.438	10.50	1.91
2 Debarker	1	12.5	0.01	0.125	2.50	0.41
Mill						
5 Planer Mill System	1	12.5	0.01	0.125	2.50	0.41
2 Classifier	1	12.5	0.01	0.125	2.50	0.41
5 Rip Saw	1	12.5	0.01	0.125	2.50	0.41
5 Trim Saw	1	12.5	0.01	0.125	2.50	0.41
5 Hog	1	12.5	0.01	0.125	2.50	0.41
3 Chipper	1	12.5	0.01	0.125	2.50	0.41
3 Chip Loadout Bin	1	12.5	0.01	0.125	2.50	0.41
7 Saw Mill (saws)	8	12.5	0.01	1.00	20.0	3.25
5 Hogwood and Sawdust Loadouts	2	12.5	0.024	0.600	12.0	1.95
6 Ash Handling	1	1.15	0.1	0.115	2.76	0.48
TOTALS				3.45	72.5	12.16
Operating Hours: Fuel Transfer System - 24 hrs/day, 365 days/yr, Debarker, Mill Operations and Ash Handling - 20 hrs/day, 6500 hrs/year						
Calculations lbs/hr = 12.5 tons/hr x 0.024 lbs/ton = 0.3 lbs/hr lbs/day = 0.3 lbs/hr x 24 = 7.2 lbs/day tons/yr = 7.20 lbs/day x 365 days /2,000 lb/ton = 1.31 tons/yr						
Notes 1. Emission Factors from TCAPCD for wood processing/handling 2. Ash handling based on max. of 10,000 tons/year, includes ash from the ESP. 3. Truck dump throughput is 20 tons/truck, 15 truck dumps/day = 300 tons/day = 12.5 tons/hr						

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Daily and Annual PM-10 Fugitive Emissions from Saw Mill and
Material Handling
Sierra Pacific Industries, Sonora Division

Source	Number of Emission Units	Throughput (ton/hr)	Emission Factor (lbs/ton)	PM-10 Emissions		
				(lbs/hr)	(lbs/day)	(tons/yr)
Fuel Transfer System						
Truck Dump (note 3)	1	12.5	0.024	0.300	7.20	1.31
Conveyors	7	12.5	0.005	0.438	10.50	1.91
Debarker	1	12.5	0.01	0.125	2.50	0.41
Mill						
Planer Mill System	1	12.5	0.01	0.125	2.50	0.41
Classifier	1	12.5	0.01	0.125	2.50	0.41
Rip Saw	1	12.5	0.01	0.125	2.50	0.41
Trim Saw	1	12.5	0.01	0.125	2.50	0.41
Hog	1	12.5	0.01	0.125	2.50	0.41
Chipper	1	12.5	0.01	0.125	2.50	0.41
Chip Loadout Bin	1	12.5	0.01	0.125	2.50	0.41
Saw Mill (saws)	8	12.5	0.01	1.00	20.0	3.25
Hogwood and Sawdust Loadouts	2	12.5	0.024	0.600	12.0	1.95
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TOTALS				3.45	72.5	12.16
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Calculations						
lbs/hr = 12.5 tons/hr x 0.024 lbs/ton = 0.3 lbs/hr						
lbs/day = 0.3 lbs/hr x 24 = 7.2 lbs/day						
tons/yr = 7.20 lbs/day x 365 days /2,000 lb/ton = 1.31 tons/yr						
Notes						
1. Emission Factors from TCAPCD for wood processing/handling						
2. Ash handling based on max. of 10,000 tons/year, includes ash from the ESP.						
3. Truck dump throughput is 20 tons/truck, 15 truck dumps/day = 300 tons/day = 12.5 tons/hr						

Table 4
Estimate of Toxic Air Emissions from 110 mmbtu/hr Zurn Biomass Boiler
(Operating 24 hours per day, 365 days/year)

Pollutant	Emission Factor (lb/mmbtu)	Percent Control (%)	Annual Emissions	
			(lb/yr)	(tons/yr)
ORGANICS				
Acenaphthene	9.10E-07	0.0%	8.77E-01	4.38E-04
Acenaphthylene	5.00E-06	0.0%	4.82E+00	2.41E-03
Acetaldehyde	8.30E-04	0.0%	8.00E+02	4.00E-01
Acrolein	4.00E-03	0.0%	3.85E+03	1.93E+00
Anthracene	3.00E-06	0.0%	2.89E+00	1.45E-03
Benzene	4.20E-03	0.0%	4.05E+03	2.02E+00
Benzo(a)anthracene	6.50E-08	0.0%	6.26E-02	3.13E-05
Benzo(a)pyrene	2.60E-06	0.0%	2.51E+00	1.25E-03
Benzo(b)fluoranthene	1.00E-07	0.0%	9.64E-02	4.82E-05
Benzo(e)pyrene	2.60E-09	0.0%	2.51E-03	1.25E-06
Benzo(g,h,i)perylene	9.30E-08	0.0%	8.96E-02	4.48E-05
Benzo(j,k)fluoranthene	1.60E-07	0.0%	1.54E-01	7.71E-05
Benzo(k)fluoranthene	3.60E-08	0.0%	3.47E-02	1.73E-05
Carbon Tetrachloride	4.50E-05	0.0%	4.34E+01	2.17E-02
Chlorine	7.90E-04	0.0%	7.61E+02	3.81E-01
Chlorobenzene	3.30E-05	0.0%	3.18E+01	1.59E-02
Chloroform	2.80E-05	0.0%	2.70E+01	1.35E-02
Chrysene	3.80E-08	0.0%	3.66E-02	1.83E-05
Dibenzo(a,h)anthracene	9.10E-09	0.0%	8.77E-03	4.38E-06
Dioxin (2,3,7,8 Isomer)	8.60E-13	0.0%	8.29E-07	4.14E-10
Fluoranthene	1.60E-06	0.0%	1.54E+00	7.71E-04
Fluorene	3.40E-06	0.0%	3.28E+00	1.64E-03
Formaldehyde	4.40E-03	0.0%	4.24E+03	2.12E+00
Furans (2,3,7,8 isomer)	9.00E-11	0.0%	8.67E-05	4.34E-08
Ideno(1,2,3)pyrene	8.70E-08	0.0%	8.38E-02	4.19E-05
Napthlene	9.70E-05	0.0%	9.35E+01	4.67E-02
Pentachlorophenol	5.10E-08	0.0%	4.91E-02	2.46E-05
Perylene	5.20E-10	0.0%	5.01E-04	2.51E-07
Phenol	5.10E-05	0.0%	4.91E+01	2.46E-02
Pyrene	3.70E-06	0.0%	3.57E+00	1.78E-03
Toluene	9.20E-04	0.0%	8.87E+02	4.43E-01
Trichloroethene	3.00E-05	0.0%	2.89E+01	1.45E-02
Vinyl Chloride	1.80E-05	0.0%	1.73E+01	8.67E-03
Xylene	2.50E-05	0.0%	2.41E+01	1.20E-02

Table 4
Estimate of Toxic Air Emissions from 110 mmbtu/hr Zurn Biomass Boiler
(Operating 24 hours per day, 365 days/year)

METALS	<i>(lb/mmbtu)</i>		<i>(lbs/yr)</i>	<i>(tons/yr)</i>
Arsenic	0.00E+00	90.0%	0.00E+00	0.00E+00
Beryllium	1.10E-06	90.0%	1.06E-01	1.53E-06
Cadmium	4.10E-06	90.0%	3.95E-01	5.69E-06
Hex. Chrome	0.00E+00	90.0%	0.00E+00	0.00E+00
Lead	4.80E-05	90.0%	4.63E+00	6.66E-05
Mercury	0.00E+00	90.0%	0.00E+00	0.00E+00
Selenium	2.80E-06	90.0%	2.70E-01	3.88E-06
Nickel	3.30E-05	90.0%	3.18E+00	4.58E-05
Zinc	0.00E+00	90.0%	0.00E+00	0.00E+00

NOTES			
1. Emission Factors from Tables 1.6-3, 1.6-4, AP-42, (EPA Sept 2003)			
2. Operating schedule:	24	hrs/day	
	365	days/year	
	8,760	hours/year	
3. Boiler Size	110.0	mmbtu/hr	
4. Percent Control for Metals Only	90%		
5. Emissions of arsenic, hex chrome, mercury and zinc would not occur as the biomass fuel would not contain treated or painted wood.			

Total Annual (all HAPS)

1.49E+04 lbs/yr
7.47E+00 tons/yr

Part 3

Total Stationary Source Emissions Form

COMBUSTION EMISSION UNIT (FORM 507-C1)

DISTRICT: Tuolumne County Air Pollution Control District

DISTRICT USE ONLY

COMPANY NAME: Sierra Pacific Industries

DISTRICT ID:

FACILITY NAME: Sonora Division

I. PERMIT NUMBER: 55-0003

II. EMISSION UNIT DESCRIPTION

1. Equipment type: Wood Boiler (EU1)
2. Equipment description: Zurn 110 mmbtu/hr wood boiler
3. Equipment make, model & serial number: Zurn
4. Maximum design process rate or maximum power input/output: 110 mmbtu/hr
5. Primary use: Steam Production / 7.5 mm/hr Electricity Production
6. Burner(s) design, operating temperature and capacity: 100,000 lbs/hr max steam production
7. Control device(s) type and description (if any): ESP

III. OPERATIONAL INFORMATION

1. Operating schedule: 24 (hours/day) 8,760 (hours/year)
2. Exhaust gas properties (temperature, SCFM, %H₂O, %O₂ or %CO₂, % excess air):
134F, 51,000 DSCFM, 20%H₂O, 10.7 % O₂, 9.5% CO₂, Excess Air : Typical 25 %

3. Fuel specifications:

FUEL TYPE (name)	ANNUAL USAGE (c.f./yr, lb/yr, gal/yr)	HEATING VALUE (BTU/lb or BTU/gal)	SULFUR (%)	NITROGEN (%)
Hogged Wood	80,000 dry tons/yr	8,500 btu/lb (dry)	0.02%	0.2%
Propane (Start-up Fuel)	5,000 gallons	1,024 btu/scf	<0.01	<0.1
Diesel (Start-up Fuel)	2,500 gallons	19,300 btu/gal	0.07%	<0.1

GENERAL EMISSION UNIT (FORM 507-F1)

DISTRICT: Tuolumne County Air Pollution Control District COMPANY NAME: Sierra Pacific Industries	DISTRICT USE ONLY DISTRICT ID: FACILITY NAME: Sonora Division
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I. PERMIT NUMBER: 55-0003, Expires February 15, 2012

II. EQUIPMENT DESCRIPTION

1. General process description: Wood Debarker (EU-2)
2. Equipment type: Ring Debarker
3. Equipment description: Debarker /Conveying System
4. Equipment make, model & serial number: Nicholson 60" A-1
5. Maximum design process rate or throughput: 150 ft/min
6. Control device(s) type and description (if any): Water Spray

III. OPERATIONAL INFORMATION

1. Operating schedule: 20 (hours/day) 6500 (hours/year)
2. Exhaust gas flow rate: NA SCFM @ NA %H₂O
3. Raw products used and finished products produced:

RAW PRODUCT USED (name)	CONSUMPTION (lbs/hr, gal/hr, etc.)	PRODUCTS PRODUCED (name)	PRODUCTION (lbs/hr, gal/hr, etc.)
Logs	150 lineal ft/min	Debarked Logs	9,000 lin ft/hr

GENERAL EMISSION UNIT (FORM 507-F2)

DISTRICT: Tuolumne County Air Pollution Control District	DISTRICT USE ONLY
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

IV. Unit Emissions: EU 2

CRITERIA POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS		PM-10			
A. Emissions		0.41			
B. Pre-modification Emissions¹		See Table 3			
C. Emission Change²					
D. Emission Limit³					
OTHER REGULATED AIR POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS					
A. Emissions					
B. Pre-modification Emissions¹					
C. Emission Change²					
D. Emission Limit³					
¹ For permit modifications only; emissions prior to project modification. ² Difference between Pre-Modification Emissions (Section B.) and Emissions (Section A.). ³ For voluntary emissions cap and emission limits [i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr), pounds per million BTU (lb/MMBTU, etc.] required by any applicable federal requirement.					

GENERAL EMISSION UNIT (FORM 507-F1)

DISTRICT: Tuolumne County Air Pollution Control District COMPANY NAME: Sierra Pacific Industries	DISTRICT USE ONLY DISTRICT ID: FACILITY NAME: Sonora Division
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PERMIT NUMBER: 55-0003, Expires February 15, 2012

EQUIPMENT DESCRIPTION

1. General process description: Sawmill (EU-3)
2. Equipment type: Sawmill By Product Processing Equipment
3. Equipment description: Chipper, Classifier, Chip Loadout
4. Equipment make, model & serial number: Recision Chipper 66 inch, shaker/screen, chip loadout bin
5. Maximum design process rate or throughput: N/A
6. Control device(s) type and description (if any): Suction Blowers Used to Extract Wood Chips and Sawdust to Baghouse

OPERATIONAL INFORMATION

1. Operating schedule: 20 (hours/day) 6500 (hours/year)
2. Exhaust gas flow rate: SCFM @ %H₂O
3. Raw products used and finished products produced:

RAW PRODUCT USED (name)	CONSUMPTION (lbs/hr, gal/hr, etc.)	PRODUCTS PRODUCED (name)	PRODUCTION (lbs/hr, gal/hr, etc.)
Sawmill Wood Waste	20,000 lbs/hr	Chips Fuel	20,000 lbs/hr

GENERAL EMISSION UNIT

(FORM 507-F2)

DISTRICT: Tuolumne County Air Pollution Control District	DISTRICT USE ONLY
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

IV. Unit Emissions:

CRITERIA POLLUTANT EMISSIONS (tons per year) (EU-3)					
POLLUTANTS		PM-10			
A. Emissions		1.23			
B. Pre-modification Emissions¹	See Table 3				
C. Emission Change²					
D. Emission Limit³					
OTHER REGULATED AIR POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS					
A. Emissions	None				
B. Pre-modification Emissions¹					
C. Emission Change²					
D. Emission Limit³					

¹ For permit modifications only; emissions prior to project modification.
² Difference between Pre-Modification Emissions (Section B.) and Emissions (Section A.).
³ For voluntary emissions cap and emission limits [i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr), pounds per million BTU (lb/MMBTU, etc.) required by any applicable federal requirement.

GENERAL EMISSION UNIT (FORM 507-F1)

DISTRICT: Tuolumne County Air Pollution Control District

DISTRICT USE ONLY

COMPANY NAME: Sierra Pacific Industries

DISTRICT ID:

FACILITY NAME: Sonora Division

I. PERMIT NUMBER: 55-0003, Expires February 15, 2012

II. EQUIPMENT DESCRIPTION

1. General process description: Fuel Transfer & Handling System (EU-4)

2. Equipment type: Boiler fuel processing & conveying equipment

3. Equipment description: Fuel House, Truck Dump, 7 Conveyors

4. Equipment make, model & serial number:

5. Maximum design process rate or throughput: N/A

6. Control device(s) type and description (if any):

III. OPERATIONAL INFORMATION

1. Operating schedule: 24 (hours/day) 8760 (hours/year)

2. Exhaust gas flow rate: N/A SCFM @ N/A %H₂O

3. Raw products used and finished products produced:

RAW PRODUCT USED (name)	CONSUMPTION (lbs/hr, gal/hr, etc.)	PRODUCTS PRODUCED (name)	PRODUCTION (lbs/hr, gal/hr, etc.)
Wood Waste, Lumber slash & wood chips	Material handling process only for fuel for boiler		

GENERAL EMISSION UNIT

(FORM 507-F2)

DISTRICT: Tuolumne County Air Pollution Control District	DISTRICT USE ONLY
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

IV. Unit Emissions:

CRITERIA POLLUTANT EMISSIONS (tons per year) (EU-4)					
POLLUTANTS		PM-10			
A. Emissions		3.22			
B. Pre-modification Emissions¹		See Table 3			
C. Emission Change²					
D. Emission Limit³					
OTHER REGULATED AIR POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS					
A. Emissions					
B. Pre-modification Emissions¹					
C. Emission Change²					
D. Emission Limit³					
¹ For permit modifications only; emissions prior to project modification. ² Difference between Pre-Modification Emissions (Section B.) and Emissions (Section A.). ³ For voluntary emissions cap and emission limits [i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr), pounds per million BTU (lb/MMBTU, etc.) required by any applicable federal requirement.					

GENERAL EMISSION UNIT (FORM 507-F1)

DISTRICT: Tuolumne County Air Pollution Control District	DISTRICT USE ONLY
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

I. PERMIT NUMBER: 55-0003, Expires February 15, 2012

EQUIPMENT DESCRIPTION

1. General process description: Trim Saw/Planer (EU-5)

2. Equipment type: Lumber Planer

3. Equipment description: Planer, Trim Saw, Rip Saw, hog, hogwood loadout, planer shaving loadout

4. Equipment make, model & serial number: Stetson Ross 614D, 25"

5. Maximum design process rate or throughput: 1000 ft/min

6. Control device(s) type and description (if any): Cyclone, baghouse

I. OPERATIONAL INFORMATION

1. Operating schedule: 20 (hours/day) 6500 (hours/year)
2. Exhaust gas flow rate: N/A SCFM @ N/A %H₂O
3. Raw products used and finished products produced:

RAW PRODUCT USED (name)	CONSUMPTION (lbs/hr, gal/hr, etc.)	PRODUCTS PRODUCED (name)	PRODUCTION (lbs/hr, gal/hr, etc.)
Rough Lumber	1000 lineal feet/min	Planed lumber	80 million bf/yr

GENERAL EMISSION UNIT

(FORM 507-F2)

DISTRICT: Tuolumne County Air Pollution Control District COMPANY NAME: Sierra Pacific Industries	DISTRICT USE ONLY DISTRICT ID: FACILITY NAME: Sonora Division
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IV. Unit Emissions:

CRITERIA POLLUTANT EMISSIONS (tons per year) (EU-5)					
POLLUTANTS		PM-10			
A. Emissions		3.59			
B. Pre-modification Emissions¹		See Table 3			
C. Emission Change²					
D. Emission Limit³					
OTHER REGULATED AIR POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS					
A. Emissions					
B. Pre-modification Emissions¹					
C. Emission Change²					
D. Emission Limit³					

¹ For permit modifications only; emissions prior to project modification.

² Difference between Pre-Modification Emissions (Section B.) and Emissions (Section A.).

³ For voluntary emissions cap and emission limits [i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr), pounds per million BTU (lb/MMBTU, etc.) required by any applicable federal requirement.

GENERAL EMISSION UNIT (FORM 507-F1)

DISTRICT: Tuolumne County Air Pollution Control District	DISTRICT USE ONLY
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

PERMIT NUMBER: 55-0003, Expires February 15, 2012

EQUIPMENT DESCRIPTION

1. General process description: Ash Handling System (EU-6)
2. Equipment type: Ash Handling System
3. Equipment description: Misc. conveying equipment for ash, 1 conveyor, 1 loadout
4. Equipment make, model & serial number: Custom made
5. Maximum design process rate or throughput: 300 TPH
6. Control device(s) type and description (if any): Water Spray

OPERATIONAL INFORMATION

1. Operating schedule: 20 (hours/day) 6500 (hours/year)
2. Exhaust gas flow rate: NA SCFM @ NA %H₂O
3. Raw products used and finished products produced:

RAW PRODUCT USED (name)	CONSUMPTION (lbs/hr, gal/hr, etc.)	PRODUCTS PRODUCED (name)	PRODUCTION (lbs/hr, gal/hr, etc.)
Not Applicable	Material handling process only for ash		

GENERAL EMISSION UNIT (FORM 507-F2)

DISTRICT: Tuolumne County Air Pollution Control District

DISTRICT USE ONLY

COMPANY NAME: Sierra Pacific Industries

DISTRICT ID:

FACILITY NAME: Sonora Division

IV. Unit Emissions:

CRITERIA POLLUTANT EMISSIONS (tons per year)

POLLUTANTS		PM-10			
A. Emissions		0.485			
B. Pre-modification Emissions¹		See Table 3			
C. Emission Change²					
D. Emission Limit³					

OTHER REGULATED AIR POLLUTANT EMISSIONS (tons per year)

POLLUTANTS					
A. Emissions					
B. Pre-modification Emissions¹					
C. Emission Change²					
D. Emission Limit³					

¹ For permit modifications only; emissions prior to project modification.

² Difference between Pre-Modification Emissions (Section B.) and Emissions (Section A.).

³ For voluntary emissions cap and emission limits [i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr), pounds per million BTU (lb/MMBTU, etc.] required by any applicable federal requirement.

GENERAL EMISSION UNIT (FORM 507-F1)

DISTRICT: Tuolumne County Air Pollution Control District	DISTRICT USE ONLY
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

I. PERMIT NUMBER: 55-0003, Expires February 15, 2012

EQUIPMENT DESCRIPTION

1. General process description: Sawmill (EU-7)
2. Equipment type: Processing Equipment
3. Equipment description: (8) Saws
4. Equipment make, model & serial number: Custom made
5. Maximum design process rate or throughput: 0.04MMBF/Hr
6. Control device(s) type and description (if any): None

II. OPERATIONAL INFORMATION

1. Operating schedule: 20 (hours/day) 6500 (hours/year)
2. Exhaust gas flow rate: NA SCFM @ NA %H₂O
3. Raw products used and finished products produced:

RAW PRODUCT USED (name)	CONSUMPTION (lbs/hr, gal/hr, etc.)	PRODUCTS PRODUCED (name)	PRODUCTION (lbs/hr, gal/hr, etc.)
Sawmill Wood	0.04 MMBF/Hr	Dimensional Lumber	0.04 MMBF/Hr

GENERAL EMISSION UNIT

(FORM 507-F2)

DISTRICT: Tuolumne County Air Pollution Control District	DISTRICT USE ONLY
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

IV. Unit Emissions:

CRITERIA POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS		PM-10			
A. Emissions		3.25			
B. Pre-modification Emissions¹		See Table 3			
C. Emission Change²					
D. Emission Limit³					

OTHER REGULATED AIR POLLUTANT EMISSIONS (tons per year)					
POLLUTANTS					
A. Emissions					
B. Pre-modification Emissions¹					
C. Emission Change²					
D. Emission Limit³					

¹ For permit modifications only, emissions prior to project modification.
² Difference between Pre-Modification Emissions (Section B.) and Emissions (Section A.).
³ For voluntary emissions cap and emission limits [i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr), pounds per million BTU (lb/MMBTU, etc.) required by any applicable federal requirement.]

GENERAL EMISSION UNIT (FORM 507-F1)

DISTRICT: Tuolumne County Air Pollution Control District	DISTRICT USE ONLY
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

PERMIT NUMBER: 55-0003, Expires February 15, 2012

EQUIPMENT DESCRIPTION

1. General process description: Gasoline Dispensing (EU-8)
2. Equipment type: Above ground tank and gasoline dispensing equipment
3. Equipment description: Gasoline dispensing equipment
4. Equipment make, model & serial number: To be Provided
5. Maximum design process rate or throughput: 28,063 gallons based on 2011 usage
6. Control device(s) type and description (if any): Vapor capture type of nozzles

OPERATIONAL INFORMATION

1. Operating schedule: 24 (hours/day) 8760 (hours/year)
2. Exhaust gas flow rate: NA SCFM @ NA %H₂O
3. Raw products used and finished products produced:

RAW PRODUCT USED (name)	CONSUMPTION (lbs/hr, gal/hr, etc.)	PRODUCTS PRODUCED (name)	PRODUCTION (lbs/hr, gal/hr, etc.)
Gasoline Annual Throughput	28,063 gallons/yr	N/A	N/A

GENERAL EMISSION UNIT (FORM 507-F2)

DISTRICT: Tuolumne County Air Pollution Control District

DISTRICT USE ONLY

COMPANY NAME: Sierra Pacific Industries

DISTRICT ID:

FACILITY NAME: Sonora Division

IV. Unit Emissions:

CRITERIA POLLUTANT EMISSIONS (tons per year)

POLLUTANTS		VOCs			
A. Emissions		1.37			
B. Pre-modification Emissions¹					
C. Emission Change²		No Change			
D. Emission Limit³		10			

OTHER REGULATED AIR POLLUTANT EMISSIONS (tons per year)

POLLUTANTS					
A. Emissions					
B. Pre-modification Emissions¹					
C. Emission Change²					
D. Emission Limit³					

¹ For permit modifications only; emissions prior to project modification.

² Difference between Pre-Modification Emissions (Section B.) and Emissions (Section A.).

³ For voluntary emissions cap and emission limits [i.e. expressed as parts per million (ppm) corrected for dilution air, pounds per hour (lbs/hr), pounds per million BTU (lb/MMBTU, etc.) required by any applicable federal requirement.

TANKS 4.0.9d
Emissions Report - Brief Format
Individual Summaries

Emissions Report for: Annual

SPI_Sonora - Horizontal Tank

Components	Losses(lbs)		
	Working Loss	Breathing Loss	Total Emissions
Gasoline (RVP 10)	275.63	2,458.50	2,734.13

EMISSION CONTROL UNIT (FORM 507-G1)

DISTRICT: Tuolumne County Air Pollution Control District COMPANY NAME: Sierra Pacific Industries	DISTRICT USE ONLY DISTRICT ID: FACILITY NAME: Sierra Pacific Industries
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I. PERMIT NUMBER: 55-0003, Expires February 15, 2012

II. EQUIPMENT DESCRIPTION

1. General process description: Particulate Control (CD-2)
2. Equipment type: Electrostatic Precipitor
3. Equipment description: ESP (73.5 kw)
4. Equipment make, model & serial number: PPC Industries, Model 20R-1330-3712P
5. Emission unit(s) served by this equipment: Boiler
6. Maximum design or rated capacity: 125,000 ACFM @ 350F (216 lbs/hr inlet)

III. EQUIPMENT DESIGN INFORMATION

1. Exhaust gas:

Temperature:	<u>(F)350</u>	Flow Rate:	<u>(SCFM)125,000ACFM</u>
Moisture:	<u>23 (%)</u>	Oxygen:	<u>12 (%)</u>
CO ₂ :	<u>10 (%)</u>		
2. General:

Manufacturer:	<u>PPC</u>	Pressure Drop:	<u>(in-Hg)</u>
Inlet Temp.:	<u>350(max) (F)</u>	Outlet Temp.:	<u>275(max) (F)</u>
3. Catalyst data:

Catalyst Type/Material:	<u></u>		
Catalyst Life:	<u>(years)</u>	Volume:	<u>(Ft3)</u>
Space Velocity:	<u>(Ft3/Ft)NH3 inj. Rate:</u>		<u>(gal/hr)</u>
NH3 Inj. Temp.:	<u>(F)</u>		
4. Baghouse data:

Design:	<input type="checkbox"/> Positive Pressure	<input type="checkbox"/> Negative Pressure	
Cleaning Method:	<u></u>		
Fabric Material:	<u></u>		
Flow Rate:	<u>(SCFM)</u>	Air/Cloth Ratio:	<u></u>
5. ESP data:

Number of fields:	<u>420</u>	Cleaning Method:	<u>Rapping</u>
Power Input:	<u>73.5kw</u>		
6. Scrubber data:

Type/design:	<u></u>	Sorbent Type:	<u></u>
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7. Other Control Devices (include appropriate design information):

EMISSION CONTROL UNIT (FORM 507-G1)

DISTRICT: Tuolumne County Air Pollution Control District COMPANY NAME: Sierra Pacific Industries	DISTRICT USE ONLY DISTRICT ID: FACILITY NAME: Sierra Pacific Industries
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I. PERMIT NUMBER: 55-0003, Expires February 15, 2012

II. EQUIPMENT DESCRIPTION

1. General process description: Dust From Saw Mill (CD-3)
2. Equipment type: Particulate Control
3. Equipment description: Baghouse
4. Equipment make, model & serial number: Western Pneumatic Model 630 Baghouse
5. Emission unit(s) served by this equipment: EÜ 3,4
6. Maximum design or rated capacity: _____

III. EQUIPMENT DESIGN INFORMATION

1. Exhaust gas: Temperature: 75 (F) Flow Rate: 5,500 (SCFM)
 Moisture: 45 (%) Oxygen: 20 (%)
 CO₂: _____ (%)
2. General: Manufacturer: Custom Made Pressure Drop: N/A (in-Hg)
 Inlet Temp.: 75 (F) Outlet Temp.: 75 (F)
3. Catalyst data: Catalyst Type/Material: _____
 Catalyst Life: _____ (years) Volume: _____ (Ft³)
 Space Velocity: _____ (Ft³/Ft)NH₃ inj. Rate: _____ (gal/hr)
 NH₃ Inj. Temp.: _____ (F)
4. Baghouse data: Design: Positive Pressure Negative Pressure
 Cleaning Method: Rapping
 Fabric Material: Nylon
 Flow Rate: 5.500 (SCFM) Air/Cloth Ratio: N/A
5. ESP data: Number of fields: _____ Cleaning Method: _____
 Power Input: _____
6. Scrubber data: Type/design: _____ Sorbent Type: _____
7. Other Control Devices (include appropriate design information): _____

EMISSION CONTROL UNIT (FORM 507-G1)

DISTRICT: Tuolumne County Air Pollution Control District COMPANY NAME: Sierra Pacific Industries	DISTRICT USE ONLY DISTRICT ID: _____ FACILITY NAME: Sierra Pacific Industries
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I. PERMIT NUMBER: 55-0003, Expires February 15, 2012

II. EQUIPMENT DESCRIPTION

1. General process description: Fuel Handling (CD-4)
2. Equipment type: Mechanical Particulate Control
3. Equipment description: Cyclone (2)
4. Equipment make, model & serial number: _____
5. Emission unit(s) served by this equipment: EU - 4
6. Maximum design or rated capacity: _____

III. EQUIPMENT DESIGN INFORMATION

1. Exhaust gas: Temperature: 75 (F) Flow Rate: 4,500 (SCFM)
 Moisture: 45 (%) Oxygen: 20 (%)
 CO₂: _____ (%)
2. General: Manufacturer: _____ Pressure Drop: _____ (in-Hg)
 Inlet Temp.: _____ (F) Outlet Temp.: _____ (F)
3. Catalyst data: Catalyst Type/Material: _____
 Catalyst Life: _____ (years) Volume: _____ (Ft³)
 Space Velocity: _____ (Ft³/Ft) NH₃ inj. Rate: _____ (gal/hr)
 NH₃ Inj. Temp.: _____ (F)
4. Baghouse data: Design: Positive Pressure Negative Pressure
 Cleaning Method: _____
 Fabric Material: _____
 Flow Rate: _____ (SCFM) Air/Cloth Ratio: _____
5. ESP data: Number of fields: _____ Cleaning Method: _____
 Power Input: _____
6. Scrubber data: Type/design: _____ Sorbent Type: _____
7. Other Control Devices (include appropriate design information): _____

EMISSION CONTROL UNIT (FORM 507-G1)

DISTRICT: Tuolumne County Air Pollution Control District COMPANY NAME: Sierra Pacific Industries	DISTRICT USE ONLY DISTRICT ID: _____ FACILITY NAME: Sierra Pacific Industries
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I. PERMIT NUMBER: 55-0003, Expires February 15, 2012

II. EQUIPMENT DESCRIPTION

1. General process description: Dust/shavings from Planer Building (CD-5)
2. Equipment type: Mechanical Particulate Control
3. Equipment description: Dual Cyclones
4. Equipment make, model & serial number: _____
5. Emission unit(s) served by this equipment: EU - 5
6. Maximum design or rated capacity: _____

III. EQUIPMENT DESIGN INFORMATION

1. Exhaust gas: Temperature: _____ (F) Flow Rate: _____ (SCFM)
 Moisture: _____ (%) Oxygen: _____ (%)
 CO₂: _____ (%)
2. General: Manufacturer: _____ Pressure Drop: _____ (in-Hg)
 Inlet Temp.: _____ (F) Outlet Temp.: _____ (F)
3. Catalyst data: Catalyst Type/Material: _____
 Catalyst Life: _____ (years) Volume: _____ (Ft³)
 Space Velocity: _____ (Ft³/Ft) NH₃ inj. Rate: _____ (gal/hr)
 NH₃ Inj. Temp.: _____ (F)
4. Baghouse data: Design: Positive Pressure Negative Pressure
 Cleaning Method: _____
 Fabric Material: _____
 Flow Rate: _____ (SCFM) Air/Cloth Ratio: _____
5. ESP data: Number of fields: _____ Cleaning Method: _____
 Power Input: _____
6. Scrubber data: Type/design: _____ Sorbent Type: _____
7. Other Control Devices (include appropriate design information): _____



PPC Industries

3000 East Marshall
903-758-3395

Longview, TX 75601
Fax 903-758-6487

Date: 09/21/10

Sierra Pacific Industries

19794 Riverside Avenue
Anderson, CA 96007

F.O.B. Point of Manufacture

Attention: Mr. Ryan Land
Email: rland@spi-ind.com

Location: Sonora, CA

Contact: Link Landers

I. DESIGN BASIS

General system properties at the inlet to the system

Heat input (MMBTU/hr).....	200
Flow (ACFM @ design temperature).....	125,000
Flow (lbs/hr).....	350,875
H ₂ O in flue gas (% by volume).....	23
O ₂ in flue gas (% by volume).....	5
Maximum O ₂ in flue gas (% by volume).....	12
Temperature (° F).....	350
Basis of tons/yr calculations (hrs/yr).....	8,400
Design operating pressure.....	Negative

Inlet loadings to the system

PM (grains/DSCF) [lbs/hr] {tons/yr}	(0.40) [216] {907}
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Guaranteed emission rates at the outlet of the system

PM (grains/DSCF) [lbs/hr] {tons/yr}	(0.01) [5.4] {22.7}
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Removal efficiencies of the system

PM (%).....	97.5
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Miscellaneous items

Pollutant source	wood fired boiler
Fuel.....	virgin wood waste
Maximum operating duct pressure (inches-wc positive).....	2.0

Utilities Required

Particulate Removal

Supply power voltage/frequency.....	480 / 3 phase / 60 Hz
Control voltage/frequency	120 / 1 phase / 60 Hz
Hopper heaters.....	480 / 1 phase / 60 Hz
Power required (Kw)	171

II. SCOPE OF WORK BY PPC INDUSTRIES

PRECIPITATOR: PPC is offering our Model **20R-1330-3712P** modular electrostatic precipitator including all collecting plates, rigid discharge electrodes, roof sections, insulator compartments, access doors, all internal components and power supplies to make a complete air pollution control assembly.

The electrostatic precipitator will have the following design features:

Gas velocity (ft/sec)	3.47
Treatment time (seconds).....	8.8
Aspect ratio (treatment length/treatment height)	1.02
Treatment length (feet)	30.6
Collecting area (square feet).....	36,750
SCA (sq. ft./1,000 acfm).....	294
Power consumption (kw).....	73.5
Pressure drop (inches of wc)	0.50
Structural design temperature (degrees F.).....	700
Structural design pressure (in. w.c.)	+/- 35
Hopper capacity (cubic feet)	2,514
Number of hoppers	3
Hopper opening size	18" x 15'-0"
Number of gas passages	20
Spacing of gas passages (inches).....	12
Number of discharge electrodes	420
Total length of discharge electrodes	12,600
Transformer output voltage (kv).....	55
Transformer output current (ma).....	650
Number of transformers	3
Installed weight (excluding dust, insulation, and support steel).....	244,400

The collecting plates will be a new heavier constructed style from solid rolled steel sheets not less than 18 gauge. The sheets have a new more rigid box style stiffening fin and baffled to give quiet gas areas at the surface of the plate to minimize re-entrainment. Both top and bottom alignment guides, stiffeners and mountings will maintain the alignment of plates while permitting thermal expansion. The plates will be designed for a maximum temperature excursion to 700° F.

Electromagnetic uplift-gravity impact rappers will be provided. The rapping systems will be arranged to operate automatically and will be designed to minimize particulate re-entrainment. The rapper control will have adjustable frequency and intensity features.

Rigid electrodes will be provided and they will be fabricated from 16 gauge seamless tubing with uniformly spaced corona emitting pins welded to the tubing. The electrodes will be stabilized and supported to maintain alignment at all temperature ranges of the precipitator's operation.

Each discharge electrode frame will be vibrated individually and the system will be designed such that both duration and frequency of vibration can be varied.

Step up transformers/rectifiers will be provided with the precipitator. Each set will be an outdoor type, oil insulated, self-air cooled unit with full-wave rectifiers. The transformer and rectifiers will be in the same tank. The transformer will be provided with a grounding switch and a key interlock. Each set will be rated for temperature rise of 45 degrees C (at a maximum ambient of 50 degrees C).

The high tension support insulators will be of the cylindrical, compression load type. The insulators will be porcelain, glazed inside and outside and will have ground ends. The insulators will be located out of the gas treatment area, and will be kept clean by purge air.

The precipitator will be furnished with key type safety interlocks with a sequential key arrangement to prevent access to any high voltage equipment without locking out the power supply and grounding

the high voltage equipment. The following equipment will be interlocked: all quick opening precipitator access doors, transformer/rectifier ground switches and high voltage control unit circuit breakers.

Welded weatherproof individual insulator compartments will be provided to house insulators. The insulator compartments will be accessible by access doors with safety interlocks to prevent access to all high voltage areas except until the precipitator is de-energized and grounded.

The electrostatic precipitator shell will be fabricated from 3/16" thick ASTM A-36 steel plate with external ASTM A-36 structural stiffeners as required to support the electrostatic precipitator internal pressure, wind, live, and dead loads. The shell will be seal welded to form a totally gas tight structure.

The precipitator will be equipped with transverse trough type hoppers. Each hopper will be fabricated from 3/16" ASTM A-36 steel plate, and supported with ASTM A-36 external structural shapes as required to support the hopper loads. Each hopper will be designed to support its weight when full of particulate. Particulate density is 65 lb/cu.ft. for structural sizing and 20 lb/cu.ft. for hopper capacity sizing. In addition, the hoppers will be of sufficient capacity to store particulate collected over a minimum period of 12 operating hours. The sides will be sloped to provide a minimum hopper wall angle of 60 degrees from the horizontal. The end angle will be adjusted to insure a minimum hopper valley angle of 55 degrees.

PRECIPITATOR SUPPORTS: PPC will provide non-stamped fabrication drawings to the customer so that the structural steel and slide pads can be fabricated by others. The structural steel will be designed to provide for 8' - 0" clearance between the hopper discharge and grade.

NOZZLES: The precipitator will be equipped with flanged inlet and outlet nozzles. The nozzles will be fabricated from externally stiffened 3/16" thick ASTM A-36 steel plate.

Inlet: The inlet nozzle will be a horizontal entry pyramid type with the bottom angle of the nozzle 45 degrees from the horizontal. The inlet nozzle will include three flow distribution screens to assure uniform flow through the precipitator. No access is required.

Outlet: The outlet nozzle will be a horizontal discharge pyramid type with the bottom angle of the nozzle 60° from the horizontal. The outlet nozzle will include a flow distribution device to assure uniform flow through the electrostatic precipitator. No access is required.

INSULATION & SIDING: Insulation and siding will be provided by the purchaser.

PAINTING: Painting and sandblasting will be provided by the purchaser.

ELECTRICAL CONTROL EQUIPMENT: The following electrical control equipment will be furnished by PPC.

Roof Equipment Enclosure: A NEMA 4 precipitator roof equipment enclosure will be furnished with local collecting plate rapper controls, local discharge electrode vibrator controls and local purge air blower controls.

T/R Controller: PPC will provide an NEMA 4 microprocessor type high voltage control enclosure mounted on the side of each transformer/rectifier. All components will be accessible through a hinged front door. The voltage controls will be completely automatic with auxiliary manual control. Both manual and automatic systems will provide full range control. Arc suppression will be provided by a current limiting device to reduce the voltage when a spark over condition exists in the precipitator. The controllers will be rated for a maximum ambient of 40°C. All enclosures will be constructed of 12 gauge steel and painted with ASA 61 gray enamel.

Remote Control: PPC will provide a remote graphics voltage controller (GVC) for each transformer/rectifier. Each GVC controller will be mounted in a remote control panel. The standard size of the remote panel for a two field electrostatic precipitator is 24" wide x 30" high x 8" deep.

Three field electrostatic precipitators are six additional inches high.

The graphics controller provides bar graph and digital read outs of primary and secondary voltages and currents, as well as kw, spark rate, SCR conduction angle and the status of the T/R. This remote panel is to be mounted in the customers control room. Alarms will be provided on the GVC control unit for AC overcurrent, T/R over temperature, SCR high temperature, SCR imbalance, loss of memory, DC undervoltage and DC overvoltage. A main menu is provided to select functions for operation and troubleshooting. The graphics controller display is 16 lines x 40 characters wide. The unit can produce V/I curves, 24 hour trend plots, and 30 minute trend plots. The operator can remotely set all precipitator parameters such as setback, rise rate, current limit, etc. On line help text is available for making all adjustments.

Each controller will also have three indicator lights next to each GVC. These lights are for Control On, HV On, and Alarm.

III. ACCESS

PPC will provide an unpainted hand railing with kick plate around the perimeter of the roof of the precipitator. Handrails and vertical posts will be 2" square tubing. Hand railing is to be installed by the purchaser in the field.

Access openings to the hopper, roof and high voltage compartments will be 24" diameter. All access openings will be equipped with quick opening, hinged steel doors and gas tight seals. A safety key interlock system and high voltage warning signs will be provided for all quick opening access doors. All access doors will be easily accessible from the roof except those on the hopper.

No access ladders will be provided to the hopper manways.

IV. ENGINEERING & TECHNICAL SERVICES

ENGINEERING AND TECHNICAL SERVICES: PPC will provide a complete engineering package for the above electrostatic precipitator including:

- General arrangement drawings
- Foundation loading diagrams and anchor bolt patterns**
- Electrical drawings and schedules**
- Erection and interface drawings**
- Operators manual (1 electronic copy)
- Recommended spare parts list
- Installation procedure
- Complete electrical package on AutoCad

PPC will conduct three (3) inspection trips consisting of three (3) days each (2 days Travel, 1 day onsite) during the erection as well as provide remote assistance as needed as part of this quotation.

PPC can supervise the precipitator check out and will train the purchaser's personnel in the operation and maintenance of the equipment. The charge for this service will be as set forth in the attached Standard Terms and Conditions for Field Technical Services.

V. FIELD CONSTRUCTION SERVICES

Mechanical: All field mechanical construction is to be by the purchaser. The price in this quotation is based on installation by others.

Electrical: All field electrical work is to be by the purchaser.

Part 4
Exempt Equipment Form

Equipment Description	Basis for the Exemption
A. Vehicles	<p>TCAPCD Rule 402, Section A.1 Vehicles as defined by the Vehicle Code of the State of California.</p> <p>TCAPCD Rule 402, Section A.2 Vehicles other than those contained within the provisions of Subsection A.1 used to transport passengers or freight.</p>
B. Building air conditioning systems	TCAPCD Rule 402, Section C.1 Air conditioning systems
C. Refrigeration units	TCAPCD Rule 402, Section C.2 Refrigeration units except those used as or in conjunction with air pollution control equipment.
D. Internal combustion engines	TCAPCD Rule 402, Section C.3 Piston type internal combustion engines used on other than vehicles for transporting passengers or freight, and fired with natural gas or liquefied petroleum gas, or those having 1,000 cubic inches cylinder displacement or less and fired with diesel oil or gasoline.
E. Cooling tower	TCAPCD Rule 402, Section C.4 Water cooling towers and water cooling ponds not used for evaporative cooling of water from barometric jets or from barometric condensers.
F. Steam cleaner	TCAPCD Rule 402, Section C.5 Equipment used exclusively for steam cleaning.
G. Brazing, soldering or welding equipment.	TCAPCD Rule 402, Section D.2 Brazing, soldering or welding equipment.
H. Water heaters	<p>TCAPCD Rule 402, Section E Steam generators, steam superheaters, water boilers, water heaters, and closed heat transfer systems that have a maximum heat input rate of less than 50,000,000 British Thermal Units (BTU) per hour gross, and are fired exclusively with one of the following:</p> <ol style="list-style-type: none"> 1. Natural gas; 2. Liquefied petroleum gas; 3. A combination of natural gas and liquefied petroleum gas.
H. Repairs or maintenance not involving structural changes to any equipment for which a Permit to Operate has been	TCAPCD Rule 402, Section H Repairs or maintenance not involving structural changes to any equipment for which a Permit to Operate has been granted.

Part 5
Compliance Plans Forms

ATTACHMENT A

The following rules are only the SIP approved rules of the TCAPCD. The TCAPCD has adopted many more rules but they have not been SIP approved. Those additional rules adopted by the TCAPCD are either amendments to the SIP approved rules or are entirely new rules.

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TCAPCD Rule 101 - Title

SIP Approved: 06-30-1999 (64 FR 35005)

Rule Description: This rule states the title of the TCAPCD Rules and Regulations.

Compliance Status: A compliance determination not necessary for this rule.

TCAPCD Rule 102 - Definitions

SIP Approved: 06-30-1999 (64 FR 35005)

Rule Description: This rule provides definitions of terms used in other SIP approved rules.

Compliance Status: A compliance determination not necessary for this rule.

TCAPCD Rule 201 - District-Wide Coverage

SIP Approved: 08-22-1977 (42 FR 42225)

Rule Description: This rule states that all Prohibitions in TCAPCD Regulation 2 apply in all portions of Tuolumne County unless otherwise stated..

Compliance Status: A compliance determination not necessary for this rule.

TCAPCD Rule 202 - Visible Emissions

SIP Approved: 12-06-1979 (44 FR 70141)

Rule Description: This rule limits the visible emissions from an emissions source to no more than Ringlemann No.1 or 20% opacity.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 203 - Exceptions

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule states exceptions to TCAPCD Rule 202 Visible Emissions.

Compliance Status: The permittee is in compliance with this rule

TCAPCD Rule 204 - Wet Plumes

SIP Approved: 08-22-1977 (42 FR 42225)

Rule Description: This rule states that uncombined water cannot be the basis for a violation of TCAPCD Rule 202 Visible Emissions.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 205 - Nuisance

SIP Approved: 08-22-1977 (42 FR 42225)

Rule Description: This rule limits the discharge of air contaminants that cause a nuisance.

Compliance Status: The U.S. EPA does not consider nuisance rules as SIP approvable. The SIP approval of this rule by U.S. EPA is a mistake. U.S. EPA has indicated that there is very little probability that they would enforce this rule. The permittee is in compliance with this rule.

TCAPCD Rule 206 - Incinerator Burning

SIP Approved: 12-06-1979 (42 FR 42225)

Rule Description: This rule states that combustible or flammable waste must be burned in a multiple chamber incinerator.

Compliance Status: The permittee does not operate the type of equipment regulated by this rule. Therefore a compliance determination is not necessary for this rule.

TCAPCD Rule 207 - Particulate Matter

SIP Approved: 05-18-1981 (46 FR 22117)

Rule Description: This rule limits the emission of particulate matter to no more than 0.1 grains/dscf.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 208 - Orchard or Citrus Heaters

SIP Approved: 12-06-1979 (44 FR 70141)

Rule Description: This rule limits the use of orchard or citrus heaters to those approved by CARB.

Compliance Status: The permittee does not operate the type of equipment regulated by this rule. Therefore a compliance determination is not necessary for this rule.

TCAPCD Rule 210 - Sulfur Emissions

SIP Approved: 08-22-1977 (42 FR 42225)

Rule Description: This rule limits the emission of sulfur compounds, calculated as sulfur dioxide to no more than 0.2 percent by volume.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 211 - Process Weight Per Hour

SIP Approved: 08-22-1977 (42 FR 42225)

Rule Description: This rule limits the emission of particulate matter to no more than that allowed by TCAPCD Rule 212.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 212 - Process Weight Table

SIP Approved: 08-22-1977 (42 FR 42225)

Rule Description: This rule specifies the allowable mass particulate emission based on a process weight rate for TCAPCD Rule 211.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 213 - Storage of Petroleum Products

SIP Approved: 12-06-1979 (44 FR 70141)

Rule Description: This rule specifies equipment requirements for the storage of gasoline in tanks larger than 250 gallons.

5/5

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 214 - Reduction of Animal Matter

SIP Approved: 08-22-1977 (42 FR 42225)

Rule Description: This rule specifies equipment requirements for the reduction of animal matter.

Compliance Status: The permittee does not operate the type of equipment regulated by this rule. Therefore a compliance determination is not necessary for this rule.

TCAPCD Rule 215 - Abrasive Blasting

SIP Approved: 12-06-1979 (44 FR 70141)

Rule Description: This rule incorporates the requirements of California Administrative Code, Title 17, Subchapter 6 that regulates abrasive blasting.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 217 - Existing Sources

SIP Approved: 12-06-1979 (44 FR 70141)

Rule Description: This rule allowed sources operating in compliance prior to adoption of the new TCAPCD Regulation II in 1974 until 1984 to comply with the new requirements.

Compliance Status: The effect of this rule ended in 1984. A compliance determination is not necessary for this rule.

TCAPCD Rule 218 - Compliance Tests

SIP Approved: 05-18-1981 (46 FR 22117)

Rule Description: This rule states that performance tests undertaken to determine compliance shall comply with 40 CFR 60 Appendix A except that Method 5 shall be modified to include the impinger train.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 407 - Specific Contaminants

SIP Approved: 09-22-1972 (37 FR 19812)

Rule Description: This rule limits the emissions of -

1. Sulfur compounds, calculated as sulfur dioxide, to no greater than 0.2 percent by volume.
2. Combustion contaminants to no greater than 0.1 grains/dscf corrected to 12% CO₂.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 408 - Fuel Burning Equipment

SIP Approved: 09-22-1972 (37 FR 19812)

Rule Description: This rule limits the emissions from furnaces, boilers or other apparatus used in the process of burning fuel for the purpose of producing heat or power to -

1. No more than 200 lb/hour of sulfur compounds, calculated as sulfur dioxide.
2. No more than 140 lb/hour of nitrogen oxides, calculated as nitrogen dioxide.
3. No more than 10 lb/hour of combustion contaminants derived from the fuel.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 413 - Organic Liquid Loading

SIP Approved: 09-22-1972 (37 FR 19812)

Rule Description: This rule regulates the loading of organic liquids, with a vapor pressure of 2.5 psia or greater, into tank trucks.

Compliance Status: The permittee does not operate the type of equipment regulated by this rule. Therefore a compliance determination is not necessary for this rule.

TCAPCD Rule 414 - Effluent Oil Water Separators

SIP Approved: 09-22-1972 (37 FR 19812)

Rule Description: This rule regulates the type of equipment used to recover oil from effluent water.

Compliance Status: The permittee does not operate the type of equipment regulated by this rule. Therefore a compliance determination is not necessary for this rule.

TCAPCD Rule 422 - Architectural Coatings

SIP Approved: 09-22-1972 (37 FR 19812)

Rule Description: This rule states that architectural coatings, used in 1 quart or larger containers, shall not contain photochemically reactive solvents.

Compliance Status: The control technology requirements of this 1972 rule have been superceded by newer control technology for architectural coatings. The elimination of photochemically reactive solvents in coatings has been replaced by strict limits on the total VOC content of the coatings without regard to photochemical reactivity. Present day architectural coatings may contain photochemically reactive solvents but the VOC content of the coatings is only 20% of historical VOC content. This is the universal control technology for present day coatings.

The permittee cannot comply with this outdated rule when purchasing and applying present day architectural coatings because the control technology has changed radically over the last 39 years since the rule was adopted. This rule should have been revised to reflect the newer control technology.

TCAPCD Rule 423 - Disposal and Evaporation of Solvents

SIP Approved: 09-22-1972 (37 FR 19812)

Rule Description: This rule states that no person shall dispose of more than 1.5 gallons of photochemically reactive solvents during any one day.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Regulation 3 (Rules 300 and 302 - 310) - Open Burning

SIP Approved: (Rule 300) 06-30-1999 (64 FR 35005)
(Rules 302 - 310) 08-19-1999 (64 FR 45170)

Rule Description: The rules in Regulation 3 regulate open burning, agricultural burning, wildland vegetation management burning, forest management burning and range improvement burning.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 501 - Permit Required

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule requires that a Permit to Operate be obtained prior to operating any source. It further requires that a source constructed without the authorization required in Regulation IV must provide all necessary information required by the TCAPCD Air Pollution Control Officer and must conform to the standards set forth in Regulation IV. *There may be a problem with the federal enforceability of this rule because TCAPCD Regulation IV has never been SIP approved.*

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 502 - Exemptions to Rule 501

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule exempts from the requirements of TCAPCD Rule 501 any item of equipment specified in TCAPCD Rule 402 Exemptions to Rule 401. *There may be a problem with the federal enforceability of this rule because TCAPCD Regulation IV which contains Rule 401 has never been SIP approved.*

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 505 - Conditional Approval

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule states that the TCAPCD Air Pollution Officer may issue a Permit to Operate with conditions that will ensure compliance of any equipment with the standards of the TCAPCD Rules and Regulations.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 507 - Responsibility

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule states that the person to whom the Permit to Operate is issued is responsible for each and every instance wherein emission standards are exceeded.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 508 - Posting of Permit to Operate

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule states that the person to whom the Permit to Operate is issued shall maintain a copy of the Permit to Operate readily available on the operating premises.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 510 - Separation of Emissions

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule states that if emissions from a single source are emitted through two or more emission points, the total emissions from all such emission points cannot exceed the quantity allowable if all emissions were emitted through a single emission point.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 511 - Combination of Emissions

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule states that if emissions from two or more source operations are emitted through a single emission point, then the TCAPCD Rules and Regulations shall apply to each source separately only if there are reliable means to establish the separation of the components to indicate extent, quantity and degree from each source operation.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 512 - Circumvention

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule states that a person shall not superficially reduce or conceal emissions that would otherwise constitute a violation of TCAPCD Rules and Regulations.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 513 - Source Recordkeeping

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule specifies recordkeeping and reporting requirements that the TCAPCD Air Pollution Control Officer may require.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 514 - Public Records and Trade Secrets

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule states that all information submitted to the TCAPCD Air Pollution Control Officer is considered public information except that information which the TCAPCD Air Pollution Control Officer agrees is trade secret.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 515 - Provision of Sampling and Testing Facilities

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule states that the TCAPCD Air Pollution Control Officer may require the owner of an emissions source to -

1. provide specified sampling facilities to secure information regarding the extent, quantity or degree of air contaminants discharged.
2. provide and maintain sampling and monitoring apparatus to measure emissions of air contaminants.

Compliance Status: The permittee is in compliance with this rule.

TCAPCD Rule 517 - Transfer

SIP Approved: 05-27-1982 (47 FR 23159)

Rule Description: This rule states that a Permit to Operate is not transferable from one location to another, from one piece of equipment to another or from one person to another.

Compliance Status: The permittee is in compliance with this rule.

The following rule is not designated as a U.S. EPA SIP approved rule but is federally enforceable as explained.

TCAPCD Rule 500 - Additional Procedures for Issuing Permits to Operate for Sources Subject to Title V of the 1990 Federal Clean Air Act Amendments

SIP Approved: Not specifically SIP approved but approved as part of the overall approval of the TCAPCD Title V Permits Program.
11-21-2003 (68 FR 65637)

Rule Description: This rule states all of the requirements for approval and issuance of a Title V permit.

Compliance Status: The permittee is in compliance with this rule.

40 CFR 68 (begin at 68.1) - Chemical Accident Prevention Provisions

Promulgated: 01-31-1994 (59 FR 4493)
[04-09-2004 (69 FR 18831) most recent amendment]

Rule Description: This regulation specifies requirements for owners or operators of stationary sources concerning the prevention of accidental chemical releases.

An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, must comply with the requirements of 40 CFR Part 68.

40 CFR 68.215 requires that the air permitting authority include in the Title V permit for a facility specified statements regarding the regulation. Those statements are included in the Federally Enforceable Requirements - General section of the permit.

Compliance Status: The permittee stores more than the designated amounts of the specified chemical substances in 40 CFR 68 and is in compliance with the requirements of the regulation.

40 CFR 82 Subpart F (begin at 82.150) - Protection of Stratospheric Ozone - Recycling and Emissions Reduction

Promulgated: 05-14-1993 (58 FR 28712)
[04-13-2005 (70 FR 19278) most recent amendment]

Rule Description: The purpose of this subpart is to reduce emissions of class I and class II refrigerants and their substitutes to the lowest achievable level by maximizing the recapture and recycling of such refrigerants during the service, maintenance, repair and disposal of appliances and restricting the sale of refrigerants consisting in whole or in part of a class I and class II ODS in accordance with Title VI of the Clean Air Act.

This subpart applies to any person servicing, maintaining or repairing appliances. This subpart also applies to persons disposing of appliances, including small appliances and motor vehicle air conditioners. In addition, this subpart applies to refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, persons selling class I or class II refrigerants or offering class I or class II refrigerants for sale and persons purchasing class I or class II refrigerants.

As indicated in 40 CFR 70.6, Title V permits need to assure compliance with all applicable requirements at the time of permit issuance. Part 70 defines as an applicable requirement, "Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the Act, unless the Administrator has determined that such requirements need not be contained in a Title V permit." [40 CFR 70.2(12)]. The

applicable requirements of Title VI are included in the Federally Enforceable Requirements - General section of the permit.

Compliance Status: The permittee employs qualified contractors to maintain equipment that contains class I or class II refrigerants.

ATTACHMENT B

TCAPCD RULES THAT ARE
"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
FOR SIERRA PACIFIC INDUSTRIES - SONORA DIVISION

Rule is Applicable **Rule is SIP Approved** **Rule No.** **Rule Title** **Is the Rule an "Applicable Federally Enforceable Requirement"?**

- 101 Title No - no related conditions are included in the permit because of general nature of the rule.
- 102 Definitions Yes - no related conditions are included in the permit because of general nature of the rule.
- 201 District-wide Coverage Yes - no related conditions are included in the permit because of general nature of the rule.
- 202 Visible Emissions Yes - related conditions are included in the permit.
- 203 Exceptions to 202 Yes - no related conditions are included in the permit because of general nature of the rule.
- 204 Wet Plumes Yes - no related conditions are included in the permit because of general nature of the rule.
- 205 Nuisance No - it is not a SIP approved rule.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●	●	206	Incinerator Burning	Yes - no related conditions are included in the permit because permittee does not operate such equipment.
●	●	207	Particulate Matter	Yes - related conditions are included in the permit.
●	●	208	Orchard or Citrus Heaters	No - no related conditions are included in the permit because permittee does not operate such equipment.
		209	Fossil Fuel-Steam Generator Facility	No - it is not a SIP approved rule.
●	●	408	Fuel Burning Equipment <i>This SIP approved Rule 408 is similar to but not the identical language as non-SIP approved Rule 209.</i>	Yes - related conditions are included in the permit.
●		210	Specific Contaminants <i>The same rule number as SIP approved Rule 210 but rule language is not identical.</i>	No - it is not a SIP approved rule.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●	●	210	Sulfur Emissions <i>This is the SIP approved Rule 210, see above.</i>	Yes - related conditions are included in the permit.
●	●	407	Specific Contaminants <i>This SIP approved Rule 408 is similar to but not the identical language as non-SIP approved Rule 210.</i>	Yes - related conditions are included in the permit.
●		211	Process Weight Per Hour <i>The same rule number as SIP approved Rule 211 but rule language is not identical.</i>	No - it is not a SIP approved rule.
●	●	211	Process Weight Per Hour <i>This is the SIP approved Rule 211, see above.</i>	Yes - related conditions are included in the permit.
●	●	212	Process Weight Table	Yes - related conditions are included in the permit.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●	●	213	Storage of Petroleum Products <i>The same rule number as SIP approved Rule 213 but rule language is identical.</i>	No - it is not a SIP approved rule.
●	●	213	Storage of Petroleum Products <i>This is the SIP approved Rule 213, see above.</i>	Yes - related conditions are included in the permit.
●	●	214	Reduction of Animal Matter	No - no related conditions are included in the permit because permittee does not operate such equipment.
●	●	215	Abrasive Blasting	No - no related conditions are included in the permit because permittee does not operate such equipment.
●	●	216	Enforcement	No - it is not a SIP approved rule.
●	●	217	Existing Sources <i>The same number as SIP approved Rule 217 but rule language is not identical.</i>	No - no related conditions are included in the permit because of general nature of the rule.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●	●	217	Existing Sources <i>This is the SIP approved Rule 217, see above.</i>	No - no related conditions are included in the permit because of general nature of the rule.
●		218	Compliance Tests	Yes - related conditions are included in the permit.
●		413	Organic Liquid Loading <i>The same number as non-SIP approved Rule 413 but rule language is unrelated.</i>	No - no related conditions are included in the permit because permittee does not operate such equipment.
●		414	Effluent Oil Water Separators <i>The same number as non-SIP approved Rule 414 but rule language is unrelated.</i>	No - no related conditions are included in the permit because permittee does not operate such equipment.
●		422	Architectural Coatings <i>The same number as non-SIP approved Rule 422 but rule language is unrelated.</i>	Yes - no related conditions are included in the permit because of the general nature of the rule.
●		423	Disposal and Evaporation of Solvents <i>The same number as non-SIP approved Rule 423 but rule language is unrelated.</i>	Yes - no related conditions are included in the permit because of the general nature of the rule.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●	●	300	General Definitions	Yes - no related conditions are included in the permit because of general nature of the rule.
●		301	Compliance	No - it is not a SIP approved rule.
●	●	302	Burning Requirements	Yes - related conditions are included in the permit.
●	●	303	Burn or No-Burn Day	Yes - related conditions are included in the permit.
●	●	304	Burning Management Requirements	Yes - no related conditions are included in the permit because of general nature of the rule.
●	●	305	Minimum Drying Times	No - the permittee does not burn this type of material.
●	●	306	Agricultural Burning	No - the permittee does not burn this type of material.
●	●	307	Wildland Vegetation Management	No - the permittee does not burn this type of material.
●	●	308	Forest Management	No - the permittee does not burn this type of material.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●	●	309	Range Improvement	No - the permittee does not burn this type of material.
●	●	310	Miscellaneous Burning	Yes - no related conditions are included in the permit because of general nature of the rule.
●		401	Permit Required	No - it is not a SIP approved rule.
●		402	Exceptions to Rule 401	No - it is not a SIP approved rule.
●		403	Applications	No - it is not a SIP approved rule.
●		404	Application Criteria	No - it is not a SIP approved rule.
●		405	Determination of Requirements	No - it is not a SIP approved rule.
●		406	Completeness of Application	No - it is not a SIP approved rule.
●		407	Pollutant Meeting	No - it is not a SIP approved rule.

Rule is Applicable **Rule is SIP Approved** **Rule No.** **Rule Title** **Is the Rule an "Applicable Federally Enforceable Requirement"?**

- 408 Attainment Pollutant Air Quality Analysis No - it is not a SIP approved rule.
- 409 Exemptions to Rule 408 No - it is not a SIP approved rule.
- 410 Calculation of Emissions No - it is not a SIP approved rule.
- 411 Emission Offset Eligibility No - it is not a SIP approved rule.
- 412 Emission Reduction Credit No - it is not a SIP approved rule.
- 413 Attainment Pollutant Increments
The same number as SIP approved Rule 413 but rule language is unrelated. No - it is not a SIP approved rule.
- 414 Sources Impacting Class I Areas
The same number as SIP approved Rule 414 but rule language is unrelated. No - it is not a SIP approved rule.
- 415 Attainment Pollutant Increment Consumption No - it is not a SIP approved rule.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●		416	Violation of National Ambient Air Quality Standards	No - it is not a SIP approved rule.
●		417	Violation of Emission Limitation	No - it is not a SIP approved rule.
●		418	Attainment Pollutant Control Technology	No - it is not a SIP approved rule.
●		419	Nonattainment Pollutant Air Quality Standards	No - it is not a SIP approved rule.
●		420	Exemptions to Rule 419	No - it is not a SIP approved rule.
●		421	Contribution to Violation of National Ambient Air Quality Standard	No - it is not a SIP approved rule.
●		422	Exemptions to Rule 421	No - it is not a SIP approved rule.
		423	Power Plants	No - it is not a SIP approved rule.
●		424	Authority to Construct Decision	No - it is not a SIP approved rule.
●		425	Cancellation of Authority to Construct	No - it is not a SIP approved rule.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●		426	Transfer of Authority to Construct	No - it is not a SIP approved rule.
		427	Construction or Reconstruction of Major Stationary Sources that Emit Hazardous Air Pollutants	No - it is not a SIP approved rule.
●	*	500	Additional Procedures for Issuing Permits to Operate for Sources Subject to Title V of the 1990 Federal Clean Air Act Amendments	Yes - related conditions are included in the permit. (*Although this is not a SIP approved rule it is applicable because it is part of the SIP approved TCAPCD Title V Permit Program.)
●		500-5	Violations and Determinations of Compliance	No - it is not a SIP approved rule.
●	●	501	Permit Required	Yes - no related conditions are included in the permit because of general nature of the rule.
●	●	502	Exemptions to Rule 501	Yes - no related conditions are included in the permit because of general nature of the rule.
●		503	Applications	No - it is not a SIP approved rule.

Rule is Applicable
 Rule is SIP Approved
 Rule No. Rule Title
Is the Rule an "Applicable Federally Enforceable Requirement"?

- 504 Actions on Applications **No - it is not a SIP approved rule.**
- 505 Conditional Approval **Yes - no related conditions are included in the permit because of general nature of the rule.**
- 506 Denial of Application **No - it is not a SIP approved rule.**
- 507 Responsibility **Yes - no related conditions are included in the permit because of general nature of the rule.**
- 508 Posting of Permit to Operate **Yes - no related conditions are included in the permit because of general nature of the rule.**
- 509 Authority to Inspect **No - it is not a SIP approved rule.**
- 510 Separation of Emissions **Yes - no related conditions are included in the permit because of general nature of the rule.**
- 511 Combination of Emissions **Yes - no related conditions are included in the permit because of general nature of the rule.**

Is the Rule an "Applicable Federally Enforceable Requirement"?

Rule is Applicable
Rule is SIP Approved
Rule No.
Rule Title

- 512 Circumvention
 Yes - no related conditions are included in the permit because of general nature of the rule.
- 513 Source Recordkeeping
 Yes - conditions are included in the permit.
- 514 Public Records and Trade Secrets
 Yes - no related conditions are included in the permit because of general nature of the rule.
- 515 Provision of Sampling and Testing Facilities
 Yes - conditions are included in the permit.
- 516 Upset and Breakdown Conditions
 No - it is not a SIP approved rule.
- 517 Transfer
 Yes - no related conditions are included in the permit because of general nature of the rule.
- 518 Revocation of a Permit to Operate
 No - it is not a SIP approved rule.
- 519 Appeals
 No - it is not a SIP approved rule.

Rule is Applicable
Rule is SIP Approved
Rule No.
Rule Title
Is the Rule an "Applicable Federally Enforceable Requirement"?

- 520 Reinstatement No - it is not a SIP approved rule.
- 521 Annual Renewal No - it is not a SIP approved rule.
- 600 Fee Imposition Authorities No - it is not a SIP approved rule.
- 601 Permit Fee No - it is not a SIP approved rule.
- 700 Applicable Articles of the Health and Safety Code No - it is not a SIP approved rule.
- 701 General No - it is not a SIP approved rule.
- 702 Filing Petitions No - it is not a SIP approved rule.
- 703 Contents of Petitions No - it is not a SIP approved rule.
- 704 Petitions for Variance No - it is not a SIP approved rule.

COMPLIANCE PLAN (FORM 3.17-I2)

DISTRICT: Toulumne County Air Pollution Control District COMPANY NAME: Sierra Pacific Industries	<div style="text-align: center;">< DISTRICT USE ONLY =</div> <hr/> DISTRICT ID: <hr/> FACILITY NAME: Sonora Division
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III. COMPLIANCE CERTIFICATION

Under penalty of perjury, I certify the following:

- 9 *Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s) with which the source is in compliance as identified in form 3.17-I1;*
- 9 *Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with the future-effective applicable federal requirement(s) identified in form 3.17-I1, on a timely basis¹;*
- 9 *Based on information and belief formed after reasonable inquiry, the source identified in this application is not in compliance with the applicable federal requirement(s), identified in form 3.17-I1, and I have attached a compliance plan schedule.²*



1-30-12

Signature of Responsible Official

Date

1. Unless a more detailed schedule is expressly required by an applicable federal requirement.
2. At the time of expected permit issuance, if the source expects to be out of compliance with an applicable federal requirement, the applicant is required to provide a compliance schedule with this application, with the following exception. A source which is operating under a variance that is effective for less than 90 days need not submit a Compliance Schedule. For sources operating under a variance, which is in effect for more than 90 days, the Compliance Schedule is the schedule that was approved as part of the variance granted by the hearing board.

The compliance schedule shall contain a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with this applicable federal requirement. For sources operating under a variance, the compliance schedule is part of the variance granted by the hearing board. The compliance schedule shall resemble, and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. For sources not operating under a variance, consult the Air Pollution Control Officer regarding procedures for obtaining a compliance schedule.

PROPOSED
Compliance Assurance Monitoring for an Electrostatic Precipitator (ESP)
Controlling PM Emissions from a Biomass Fired Boiler

I. BACKGROUND

A. Emission Unit

Description: Biomass fuelled boiler rated at 90,000 lbs of steam per hour
Abated by an ESP

Identification: CD-2 Electrostatic Precipitator

Facility: Sierra Pacific Industries, Sonora Division

II. APPLICABLE REGULATIONS, EMISSION LIMITS AND MONITORING REQUIREMENTS

Regulation: Implement compliance assurance monitoring (CAM) for major stationary sources as stipulated in 40 CFR 64. These requirements have been incorporated by reference in 40 CFR 70 and 71.

III. BACKGROUND

SPI operates a lumber mill in Standard, California and as part of its operations, it operates a wood fired boiler. The boiler is operated at a heat input of 110 million BTU/hr which is equivalent to 100,000 lbs/hr of steam. The facility is subject to a federal Title V permit under 40 CFR 70. This permit requires that enhanced monitoring be implemented for sources that emit (uncontrolled) more than 100 tons/year of PM-10 and CO.

IV. Proposed Monitoring

The biomass boiler would be equipped with an ESP to control particulate emissions. The main stack would be equipped with an opacity monitor and a CO monitor. In addition, the ESP would be source tested annually to confirm that it controls PM-10 emissions consistent with the current permit requirements.

Performance Indicators Measured Continuously

- Opacity of exhaust gas
- Pressure drop across the ESP

Part 6
Compliance Plans Certification Forms

COMPLIANCE PLAN CERTIFICATION (FORM 3.17-J1)

DISTRICT: Toulumne County Air Pollution Control District	< DISTRICT USE ONLY =
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

I. CERTIFICATION STATUS

1. Indicate the dates the applicant intends to submit the **COMPLIANCE CERTIFICATION REPORT** to the district during the entire permit term. The district federal operating permits rule requires the applicant to submit this report at least annually.

Facility is currently under compliance

2. For sources required to have a schedule of compliance to remedy a violation, indicate the dates the applicant intends to submit **CERTIFIED PROGRESS REPORTS** to the district during the permit term. The district federal operating permits rule requires the applicant to submit this report at least semiannually.

Not Applicable

3. Describe the compliance status of the source with respect to applicable enhanced monitoring, and compliance certification requirements of Section 114(a)(3) of the Clean Air Act:

Facility is currently in compliance. The facility is not subject to enhanced monitoring

COMPLIANCE PLAN CERTIFICATION (FORM 3.17-J2)

DISTRICT: Toulumne County Air Pollution Control	< DISTRICT USE ONLY =
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: <u>EU-1</u>	APPLICABLE FEDERAL REQUIREMENT:	_____

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	CO- Continuous Emissions Monitoring (hourly)
	NO2, PM-10, VOC – Annual Source Tests
	SO2 – Annual Source Tests
Reporting	CO – Quarterly and annual reporting based on CEMS data
	NO2, PM-10, VOC – Annual reporting of hourly and yearly emission rates based on annual source tests and operating data
Record Keeping	Maintain records on-site for 5 years
Test Methods	EPA/CARB test Methods for NOx, CO, SO2, PM-10 and VOC _____
	CO- CEMS to operate per 40 CFR 60 Appendix F

EMISSION UNIT or PERMIT NUMBER: _____	APPLICABLE FEDERAL REQUIREMENT:	_____

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	
Reporting	
Record Keeping	
Test Methods	

COMPLIANCE PLAN CERTIFICATION (FORM 3.17-J2)

DISTRICT: Toulumne County Air Pollution Control	< DISTRICT USE ONLY =
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

II. CERTIFICATION INFORMATION

EMISSION UNIT or PERMIT NUMBER: EU-2, EU-3, EU-4, EU-5 APPLICABLE FEDERAL REQUIREMENT: _____

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	PM-10
Reporting	Amount of Logs Processed (tons) or Board Feet per quarter
Record Keeping	Maintain records on-site for 5 years
Test Methods	_____ _____

EMISSION UNIT or PERMIT NUMBER: EU-3,4,5 APPLICABLE FEDERAL REQUIREMENT: _____

METHOD	DESCRIPTION OR REFERENCE METHOD
Monitoring	No Testing is Proposed as Fugitive Dust Emissions are Based on EPA Emission Factors These sources are not subject to enhanced monitoring per 40 CFR 68 as annual uncontrolled emissions are below 100 tons/yr
Reporting	
Record Keeping	
Test Methods	

CERTIFICATION REPORT

(FORM 3.17-K1)

DISTRICT: Toulumne County Air Pollution Control District	< DISTRICT USE ONLY =
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

I. FACILITY INFORMATION

1. Company Name: Sierra Pacific Industries
2. Facility Name (if different than Company Name): Sonora Division
3. Mailing Address: Box 247, Standard, CA 95373
4. Street Address or Source Location: 14980 Comage Avenue, Sonora, CA 95370
5. Facility Permit Number: District Permit # 55-0003

II. GENERAL INFORMATION

1. Reporting period (specify dates): Jan 1 to Dec 31, 2012
2. Due date for submittal of report: Jan 31, 2013
3. Type of submittal: Monitoring Report (complete Section III below)
 Compliance Schedule Progress Report (complete Section IV of Form 3.17-K2)
 Compliance Certification (complete Section V of Form 3.17-K2)

III. MONITORING REPORT INFORMATION

Not Applicable

1. Were deviations from monitoring requirements encountered during the reporting period?
 No Yes (If Yes, complete Form 3.17-L)

CERTIFICATION REPORT (FORM 3.17-K2)

DISTRICT: Toulumne County Air Pollution Control District	< DISTRICT USE ONLY =
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

IV. COMPLIANCE SCHEDULE PROGRESS INFORMATION

1. Dates the activities, milestones, or compliance required by schedule of compliance was achieved/will be achieved:

Facility Currently in Compliance

2. Provide explanation of why any dates in schedule of compliance were not/will not be met:

Not Applicable

3. Describe in chronological order preventive or corrective action taken:

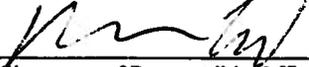
Not Applicable

V. COMPLIANCE CERTIFICATION

1. Was source in compliance during the reporting period specified in Section II of Form 3.17-K1 and is source currently in compliance with all applicable federal requirements and permit conditions.

Yes No (If no, re-submit Forms 3.17-I and 3.17-J)

I certify based on information and belief formed after reasonable inquiry, the statement and information in this document and supplements are true, accurate, and complete.

 1-30-12
Signature of Responsible Official Date

Ryan Land
Print Name of Responsible Official

Area Manager Sierra Pacific Industries
Title of Responsible Official and Company Name

Telephone Number of Responsible Official: (409) 536 2202

DEVIATION REPORT (FORM 3.17-L)

DISTRICT: Toulumne County Air Pollution Control District	< DISTRICT USE ONLY =
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID:
	FACILITY NAME: Sonora Division

I. DEVIATION INFORMATION

1. Permit number(s) of emission unit or control unit affected: No Deviations to Report

2. Description of deviation: _____

3. Description and identification of permit condition(s) deviated: _____

4. Associated equipment and equipment operation (if any): _____

5. Date and time when deviation was discovered: _____

6. Date, time and duration of deviation: _____

7. Probable cause of deviation: _____

8. Preventive or corrective action taken: _____

Part 7
Certification Statement Form

CERTIFICATION STATEMENT (FORM 3.17-M)

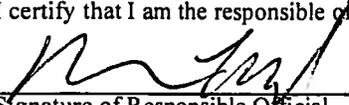
DISTRICT: Toulumne County Air Pollution Control District	< DISTRICT USE ONLY =
COMPANY NAME: Sierra Pacific Industries	DISTRICT ID: FACILITY NAME: Sonora Division

Identify, by checking off below, the forms and attachments that are part of your application. If the application contains forms or attachments that are not identified below, please identify these attachments in the blank space provided below. Review the instructions if you are unsure of the forms and attachments that need to be included in a complete application.

Forms included with application
A1, A2 Stationary Source Summary B – Total Stationary Source Emissions F2 – General Emission Units G1, G2 – Emission Control Unit H – Exempt Equipment I1, I2 – Compliance Plan J1, J2 – Compliance Plan Certification K1, K2 – Certification Report L – Deviation Report M – Certification Statement

I certify under penalty of law, based on information and belief formed after reasonable inquiry, that the information contained in this application, composed of the forms and attachments identified above, is true, accurate, and complete.

I certify that I am the responsible official, as defined in (title of district Title V permitting rule).


1-30-12

 Signature of Responsible Official Date

Ryan Land

 Print Name of Responsible Official
 Area Manager

 Title of Responsible Official

Part 8

Copy of Current Operating Permit



County of Tuolumne

Agricultural Commissioner • Weights & Measures
Animal Control • Air Pollution Control

VICKI HELMAR

*Agricultural Commissioner
Director of Weights & Measures
Director of Animal Control
Air Pollution Control Officer*

AIR POLLUTION CONTROL DISTRICT 2011 PERMIT TO CONSTRUCT

Agricultural Commissioner
Weights & Measures
Air Pollution Control
Located at:
22365 S. Airport Rd.
Sonora, CA 95370
Phone: (209) 533-5691
Fax: (209) 533-5520
Email:
AgComm@co.tuolumne.ca.us

Animal Control
Located at:
10040 Victoria place
Jamestown, CA 95327
Phone: (209) 984-1338

All Mailing:
2 So. Green St.
Sonora, CA 95370

PERMIT NUMBER: ATC-55-0003-11-04

PERMIT FEE: \$641.00

ISSUANCE DATE: June 20, 2011

EXPIRATION DATE: December 31, 2011

PERMIT TO BE ISSUED TO (Business License Name or Corporation, Company, Individual, or Government Agency that is to operate this equipment):

SIERRA PACIFIC INDUSTRIES - SONORA DIVISION

MAILING ADDRESS:

P.O. Box 247 Standard, 95373

ADDRESS OR LOCATION AT WHICH THE EQUIPMENT WILL BE OPERATED:

14980 Camage Avenue Sonora, 95370

RESPONSIBLE PERSON(S):

PHONE NUMBER:

Ryan Land, Division Manager

(209) 532-7141

TYPE OF FACILITY:

FACILITY OPERATING HOURS:

Saw Mill/Cogeneration Operations

24 hrs / 7 days / 52 weeks

EQUIPMENT DESCRIPTION:

One (1) 100,000 PPH Wood Fired Boiler
Eight (8) Saws
One (1) Screen
One (1) Planer
Control Equipment: One (1) Multiclone System and
630 Baghouse for Planer/Hog Mill Waste System.
2010 Production Rate: 0.0 Million Board Feet

One (1) Hog
One (1) Debarker
Three (3) Loadout Bins
Cold Cleaners (Degreasers)
One (1) Electrostatic Precipitator for Boiler PM
Controls. Three (3) ME Cyclones; One (1) HE Relay Cyclone; and One (1) Western Pneumatic Model

2010 ESTIMATED EMISSIONS (tons/year):

RHC:	NOx:	SOx:	TSP:	CO:	PM10:
0.0	0.0	0.0	0.0	0.0	0.0

PERMIT ISSUED BY: Vicki Helmar
Vicki Helmar, APCO

DATE: 6/20/2011

**TUOLUMNE COUNTY
AIR POLLUTION CONTROL DISTRICT
Permit to Construct
Conditions
for
Saw Mill - Cogeneration Operations**

Facility Name: Sierra Pacific Industries, Sonora Division
Location: 14980 Camage Road, Sonora
Contact: Ryan Land, Division Manager
Permit Number: ATC-55-0003-11-04
Permitted Modifications: ESP Installation (Removal of Wet Scrubber System)
Ash Handling System Installation
Hog and Planer Loadout/Baghouse Installation (10-7-08)

GENERAL CONDITIONS

1. Authorization to Construct and Operate the equipment listed in the approved application and specifications is granted by the Tuolumne County Air Pollution Control District (APCD). Acceptance of the Permit to Construct conditions is deemed as acceptance of all conditions as specified. Deviation in construction or operations from the approved application/specifications is not permissible without first securing approval for the changes from the Air Pollution Control Officer (APCO). This Permit to Construct shall remain in effect until the Permit to Operate for which the application was filed is either granted or denied. (Rule 401 - *Permit Required*)
2. The "Right of Entry", as defined by California Health and Safety Code Section 41510 of Division 26, shall apply at all times. (Rule 509 - *Authority to Inspect*)
3. The APCO reserves the right to revise, add, or remove any condition to this permit for compliance with any APCD, State, or federal requirement. If any provision of this permit is found invalid, such finding shall not affect the remaining provisions of this permit. (Rule 505 - *Conditional Approval*)
4. Any alterations affecting emissions of the subject equipment as permitted, shall be reported to the APCD. Such alterations may require an Authority to Construct application be submitted as determined by the APCO. (Rule 401 - *Permit Required*)
5. Operating staff of the facility shall be advised of and familiar with all conditions contained in this permit. (Rule 505 - *Conditional Approval*)
6. No open burning shall be conducted at this facility, unless prior approval has been granted and a burn permit has been issued by the APCD. (Rule 302 - *Burning Permits*)

OPERATING AND MAINTENANCE CONDITIONS

7. The air pollution control equipment for the exhaust of the boiler shall include a multiclone system and a electrostatic precipitator (ESP) for the control of particulate matter. At no time shall the boiler operate without said control equipment operating in design conditions. (Rule 505 - *Conditional Approval*)
8. The owner/operator shall operate all ESP fields whenever the boiler is operating. In the event of a failure of one of the fields, the APCO shall be notified within two (2) hours or as soon as reasonably possible after detection of the failure, during normal business hours with repairs/corrective measures initiated immediately.
 - a. Under no condition shall the boiler be run without all ESP fields in operation when the boiler is operating solely for electrical generation purposes. Operating less than three fields at any time is prohibited unless prior approval has been granted by the APCO or an upset/breakdown has occurred.
(Rule 505 - *Conditional Approval* / Rule 516 - *Upset and Breakdown Conditions*)
9. All process equipment, air pollution control equipment, and monitoring equipment shall be maintained in good working order, operated in design condition and leak free at all times during operation. No process equipment shall be operated without designated air pollution control equipment in operation. A copy of the manufacturer's recommendations or specifications shall be maintained on site and made available to the APCD upon request. (Rule 505 - *Conditional Approval*)
10. A maintenance plan specifying the type and frequency of maintenance for each air pollution control device within the facility shall be submitted to the APCO for approval within three (3) months of start up of boiler and milling operations. (Rule 505 - *Conditional Approval*)
11. The owner/operator shall maintain all stationary and non-stationary sources sufficiently to control fugitive emissions. Fugitive emissions including odors shall be controlled at all times such that a nuisance is not created at any point beyond the facility's property lines. The owner/operator shall maintain the following sufficiently to control fugitive emissions:
 - a. Unpaved/paved roads, fuel pile areas, and fuel handling devices;
 - b. Boiler ash processed by the ash handling system or is removed from the boiler by other means. Ash shall be stored in closed bins or in a manner as not to cause excessive fugitive emissions. Ash transported offsite shall be in a wet saturated condition or in covered containers;
 - c. All outside surfaces, including but not limited to the milling buildings, boiler control devices, hog, loadout bins, support pads, and fuel receiving areas, shall be cleaned as necessary to prevent the build up of fugitive dust and/or ash;

- d. In the event that any exposed surfaces become littered with fugitive dust due to a upset/breakdown condition, a cleaning procedure shall be implemented within 24 hours following the upset to remove the dust or debris; and,
- e. All transfer processes involving a free-fall of material in open areas shall be constructed and operated in such a manner as to minimize the free-fall distance and fugitive emissions.

(Rule 505 - Conditional Approval)

12. **Boiler Fuels:** Other than for start up purposes, only wood waste as defined in sections (a), (b), and (c) of this condition shall constitute the fuel allowed for use. Any fuel contaminated or treated with organic or inorganic compounds known to the State of California to be toxic or hazardous is prohibited to be used as fuel:

- a. Biomass fuel including wood, bark, wood residue, mill wastes, unpainted/untreated lumber, agricultural crop residues, orchard prunings and removals, stone fruit pits, nut shells, lawn, yard, and garden vegetative waste;
- b. Urban wood waste which includes clean chipped biomass derived from construction and demolition materials, including wood pallets, crates, and boxes;
- c. No fuel other than liquid petroleum gas or #2 diesel fuel shall be used for start-up purposes;
- d. Foreign material for all fuel consumed shall not exceed 3% by weight. For the purpose of this condition, foreign material is defined as: tar paper, oil, plastics, Styrofoam, rubber, paint, or any other type of non-biomass material. The owner/operator shall specify in all urban waste contracts that foreign material shall not exceed 3% by weight of the fuel mix;
- e. Copies of each urban and agricultural waste fuel purchase contract shall be maintained and made available to District staff upon request;
- f. The APCO reserves the right to require analysis of the composition of any biomass intended as fuel for the boiler. Any fuel analyses conducted by the owner/operator shall be submitted to the APCO upon request;
- g. Combustion of wet fuel, i.e., fuel with a moisture content greater than or equal to 55% shall not be considered as a valid defense for exceeding emissions violations, unless the APCO has determined that the cause of the wet fuel condition is due to an unavoidable or emergency situation; and,
- h. The APCO reserves the right to limit or prohibit the use of any fuel found to contribute to discharged air contaminants that would cause emissions exceedences and/or pose a hazard to public health or property.

(Rule 505 - *Conditional Approval*)

RECORD KEEPING AND REPORTING CONDITIONS

13. Boiler operation reports shall be submitted to the APCO on a calendar quarter basis no later than 30 days after the end of each quarter. These reports shall contain the following information:
- a. 24-hr average steam flow rates, on-line boiler operating hours, quarterly ash generation rate (tons), on-line ESP operating hours;
 - b. A log of the date and time of boiler soot blows, start ups, duration of each start-up and shutdown, upset/breakdown occurrences, excess emissions (including probable cause and any preventative or corrective actions taken); and,
 - c. (Reserved for emissions monitoring requirements)
(Rule 515 - *Provision of Sampling and Testing Facilities*) (Rule 505 - *Conditional Approval*)
14. The owner/operator shall maintain records of plant operating hours, number of operating days, process rates for mill production, and all fuel use rates. These records shall be maintained for a period of five (5) years and made available to the APCD on an annual basis or upon request in a format approved by the APCO. (Rule 513 - *Source Recordkeeping*)
15. The owner/operator shall notify the APCO of any occurrence which constitutes a breakdown condition which could result in excess emissions. Such notification shall identify the time, specific location, equipment involved, the cause(s) of the breakdown, and the method and time of any remedy taken. This notification shall be given as soon as reasonably possible, but not later than two (2) hours after upset/breakdown detection, during normal APCD business hours. The APCD Upset/Breakdown Report form shall be used for reporting such conditions. (Rule 516 - *Upset and Breakdown Conditions*)
16. The owner/operator shall notify the APCD prior to any start-up of the boiler unit:
- a. Start-up is defined as the initial combustion of fuel in the furnace chamber and includes that period of time the unit is heated to the normal operating temperature, as specified by the manufacturer, following a shutdown;
 - b. A shutdown is defined (and starts) when fuel feed is curtailed and the unit begins cooling from the unit's normal operating temperature and ends when the unit is 150 degrees F or less for at least one hour, or 24 hours have elapsed since the start of the shutdown, or fuel feed resumes, whichever comes first; and,
 - c. The multiclone system and ESP shall be in operation and emissions minimized insofar as technically feasible during start-up or shutdown.
(Rule 505 - *Conditional Approval*)

17. In accordance with Condition 10, a log book detailing the maintenance of each air pollution control device within the facility shall be maintained and made available to APCD staff upon request. (Rule 505 - *Conditional Approval*)

EMISSIONS LIMITATIONS

18. The owner/operator shall not discharge from any source whatsoever, such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons, or to the public, or which endanger the comfort, repose, health or safety of any such persons, or the public, or which cause to have a natural tendency to cause injury or damage to business or property. (Rule 205 - *Nuisance*)
19. All process and air pollution control equipment shall not discharge into the atmosphere air contaminants for a period or periods aggregating more than three (3) minutes in any one (1) hour which is dark or darker in shade than Ringelmann No. 1 or 20% opacity.
- a. As referenced in APCD Rule 203 (J), visible emissions are exempt from this condition when such emissions result from start-up or shutdown of the boiler unit for a period or periods aggregating no more than 30 minutes in any 24 hour period. This exemption shall not be valid to visible emissions that result from the failure to operate and maintain in good working order the multiclone system or ESP.
(TCAPCD Rule 202 - *Visible Emissions*)
20. Emissions from the cyclones and baghouse air pollution control equipment associated with the Planing and Saw Mill shall not exceed 0.1 grains per dry standard cubic foot of exhaust gas.
(TCAPCD Rule 207 - *Particulate Matter*)
21. Boiler Emissions Limits:
- a. Particulate Matter (PM10) emissions shall not exceed 0.2 grains per dry standard cubic foot at 12% CO₂; 11.0 pounds per hour; and, 48.0 tons per calendar year;
- b. Oxides of Nitrogen (NO_x) emissions shall not exceed 37.8 pounds per hour over a three (3) hour rolling average and 165.6 tons per calendar year;
- c. Carbon Monoxide (CO) emissions shall not exceed 55.9 pounds per hour over a three (3) hour rolling average and 245.0 tons per calendar year;
- d. Sulfur Dioxide (SO₂) emissions shall not exceed 2,000 ppmv or 0.2% of the exhaust gas; 5.7 pounds per hour and 25.0 tons per calendar year;
- e. Volatile Organic Compound (VOC) emissions shall not exceed 2.3 pounds per hour and 10.0 tons per calendar year.
(Rule 505 - *Conditional Approval*)

TESTING AND MONITORING CONDITIONS

22. The owner/operator shall provide and maintain sampling and testing facilities that will disclose the nature, extent, quantity or degree of air contaminants discharged. The quantity, size, and location of sampling ports shall follow 40 CFR Part 60 Appendix B requirements. (Rule 515 - *Provision of Sampling and Testing Facilities*)
23. The owner/operator shall employ at least one person who is continuously certified by the CARB to conduct Visible Emissions Observations (VEO). VEOs using EPA Method 9 shall be conducted and recorded at least once on a daily basis when upset/breakdown conditions of the boiler or boiler controls exceed 24 hours. (Rule 505 - *Conditional Approval*)
24. Initial performance testing shall be conducted within three (3) months of startup of the boiler and biennially thereafter, at the maximum operating capacity or at an operating load that has been approved by the APCO. All test methods and protocol shall be approved by the APCO at least 14 days prior to testing. The performance tests listed below shall conform to the following EPA or ARB test methodologies/procedures:
 - a. PM10: EPA Method 5 (front and back half required) or EPA Methods 201A and 202;
 - b. NOx: EPA Method 7E or CARB Method 100;
 - c. CO: EPA Method 10 or CARB Method 100;
 - d. SOx: EPA Method 6 or 6C or CARB Method 100; and,
 - e. VOC: EPA Method 18/25C.(Rule 515 - *Provision of Sampling and Testing Facilities* / Rule 505 - *Conditional Approval*)
25. Within three (3) months of start-up of the boiler, a plan describing how each pollutant will be monitored shall be submitted to the APCO. The plan shall contain but not be limited to specific quantification procedures, quality assurance/control procedures, documentation and reporting of data, and maintenance of monitoring systems. The APCO shall approve the plan and implementation occur within three (3) months of approval or other time line approved by the APCO. This information may be submitted at the time of the Title V Operating Permit application submittal. (Rule 515 - *Provision of Sampling and Testing Facilities*)
26. The owner/operator shall operate a Continuous Emission Monitor (CEM) to monitor and record CO emissions rates, at all times the boiler is in operation. Oxygen and Carbon Dioxide concentrations shall also be monitored, and a flow rate exhaust meter be operated and maintained as part of the CEMs system. The CEMs systems shall be installed, operated, certified, and maintained pursuant to 40 CFR Parts 60.7 and 60.13. The CEMs systems shall also comply with 40 CFR Part 60 Appendix B Performance Specifications 3 and 4, and Appendix F as stated below. (Rule 515 - *Provision of Sampling and Testing Facilities* / Rule 505 - *Conditional Approval*)
27. The owner/operator shall comply with 40 CFR Part 60 Appendix F Quality Assurance procedures. Per Section 5.1 of Appendix F, either a Cylinder Gas Audit (CGA) or a Relative

Accuracy Test Audit (RATA) shall be conducted once each calendar quarter (CGAs may be conducted in no more than three of four calendar quarters in succession, whereas a RATA must be conducted at least once every four calendar quarters). (Rule 515 - *Provision of Sampling and Testing Facilities* / Rule 505 - *Conditional Approval*)

28. The owner/operator shall install, certify and operate the CEM systems no later than December 31, 2011. The APCO reserves the right to require additional monitoring of the exhaust stack to determine compliance of emissions limits. (Rule 515 - *Provision of Sampling and Testing Facilities* / Rule 505 - *Conditional Approval*)
29. The APCO reserves the right to require criteria or air toxics testing or other sampling/testing to determine compliance with this Permit or any other applicable requirements. Source testing shall conform with EPA or ARB test methodology and procedures. All test methods and protocol shall be approved by the APCO within 14 days prior to testing. (TCAPCD Rule 515 - *Provision of Sampling and Testing Facilities*)
30. The owner/operator shall submit a complete Title V application to the APCD no later than June 30, 2011. (TCAPCD Rule 505 - *Conditional Approval* / TCAPCD Rule 500 - *Additional Procedures for Issuing Permits to Operate for Sources Subject to Title V of the 1990 Federal Clean Air Act Amendments*)

For more information contact:

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