

YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT
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TITLE V PERMIT STATEMENT OF BASIS

PERMIT NUMBER: F-00514-5

ENGINEER: Courtney Graham

DATE: October 21, 2010

Facility Name: Woodland Biomass Power, Ltd.
Mailing Address: PO Box 1560
Woodland, CA 95776

Location: 1786 East Kentucky Ave.
Woodland, CA 95776

Responsible Official: Steve Sorrentino
Title: VP, Wholesale Power and Renewables

Application Contact: Troy Owens
Phone: 530-661-6095

I. FACILITY DESCRIPTION

Woodland Biomass Power Ltd., is a biomass fuel fired circulating fluidized bed boiler system supplying a turbine generating 28 megawatts of electrical power. Ammonia injection is used for controlling nitrogen oxides (NOx), limestone injection is used for controlling sulfur oxides (SOx), a baghouse is used for controlling particulate emissions, and staged combustion is used for controlling carbon monoxide (CO) and volatile organic compound (VOC) emissions. Auxiliary operations at the plant include a cooling tower, emergency engines, lime storage and mixing, fuel handling operations, sand receiving and storage, sand screening, and flyash outloading.

II. PROPOSED REVISIONS

The facility is proposing a significant Title V Permit modification to modify an existing emission unit. This addendum to the Title V Statement of Basis reflects only the Title V Permit modifications proposed by Authority to Construct (ATC) application C-09-124. Any emission units not affected by the proposed changes were evaluated in the original Statement of Basis, and will not be included in this document. The modification is to existing emission unit P-105-90(a1)- a 330 MMBtu/hr circulating fluidized bed boiler. The facility has proposed to add the ability to burn creosote-treated railroad ties for up to 25% (by weight) of the boilers fuel content. The facility has historically burned tree prunings, fruit pits, and clean urban wood material as the primary fuel sources. The railroad ties are not classified as hazardous waste and a toxics evaluation and modeling

have been prepared, which will require compliance demonstration source testing to verify the toxics emissions while burning the treated railroad ties.

III. SIGNIFICANT EMISSIONS UNIT INFORMATION

The affected permit has been modified pursuant to issuance of an authority to construct in accordance with District Rules 3.1 and 3.4.

Identification Number: P-105-90(a1)

Equipment Description: 330 MMBtu/hr Gotaverken circulating fluidized bed boiler (Model No. 722-118), total air fan (700 hp), primary air fan (400 hp), seal air blower (2 at 150 hp each), recirculating air fan (60 hp), induced draft fan (1250 hp)

Control Equipment: Baghouse, 6-cell, 342 bags/cell, 6" D x 168" L each, 156,500 acfm; 20,000 gallon ammonia tank, variable flow, for use in the Thermal De-NOx system; and limestone SOx control

IV. TITLE V APPLICABILITY

The facility's potential to emit exceeds the Title V threshold of 25 tons per year of VOC, 25 tons per year NO_x, and 100 tons per year CO, and is subject to the requirements of District Rule 3.8. The facility emission totals are listed below:

Criteria Pollutant Emissions (tons per year)					
Emission Unit Name	VOC	CO	NO _x	SO _x	PM ₁₀
P-105-90(a1)	65.60	185.60	98.60	49.50	27.00
P-31-94(t)	-	-	-	-	0.47
P-34-94(t)	-	-	-	-	0.40
P-50-94(t)	-	-	-	-	0.03
P-51-94(t)	0.2	0.45	2.07	0.03	0.14
P-52-94(t)	0.05	0.13	0.58	0.01	0.04
P-61-89(a1)	-	-	-	-	6.68
P-74-94(t)	-	-	-	-	0.01

P-90-89(t)	-	-	-	-	0.01
P-91-89(t)	-	-	-	-	1.37
P-92-89(t)	-	-	-	-	0.01
P-93-89(t)	-	-	-	-	0.01
Total	65.85	186.18	101.25	49.54	36.17

V. APPLICABLE FEDERAL REQUIREMENTS

RULE 2.3 Ringelmann Chart (Adopted 1/13/2010)

Rule Description

This rule specifies the allowable opacity limit for sources in the District.

Compliance Status

The rule applies to the boiler (P-105-90(a1)). The source is currently in compliance with the rule. This version of the rule has not yet been approved as part of the SIP, however the newer version of the rule was used for the ATC condition, therefore since the condition is on a pre-construction permit, it is federally enforceable.

This rule specifies the compliance method as EPA Method 9, which specifies readings to be taken visually at the exit point of the stack. Therefore, this standard will apply to visible emissions at the exit of the stack, but will not apply to readings taken by the continuous opacity monitor (COMS), which is in-stack. There is some evidence that in-stack opacity and stack exit opacity may not be equal due to formation of ammonia salts after the particulate leaves the stack.

Permit Condition

For visible opacity purposes, the Permit Holder shall not discharge into the atmosphere from any single source of emission whatsoever, any air contaminant for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:

- a. As dark or darker in shade than No. 1 on the Ringelmann Chart; or
- b. Greater than 20% opacity.

RULE 2.5 Nuisance (Adopted 10/1/71)

Rule Description

This rule requires that sources are not a public nuisance.

Compliance Status

The rule applies to all emission units at the stationary source. The source is currently in compliance with the rule.

Permit Condition

The permit holder 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. [This permit condition is federally enforceable because it derives from District Rule 2.5 - Nuisance that is currently part of the California State Implementation Plan (SIP). The District is taking steps to remove Rule 2.5 from the SIP. Once the U.S. EPA has taken final action to remove District Rule 2.5 from the SIP, this permit condition will become state-enforceable only.]

RULE 2.11 Particulate Matter (Adopted 7/19/74)

Rule Description

This rule specifies the allowable particulate matter emission rate at standard conditions. This rule was updated 1/13/10, however the rule has not yet been approved as part of the SIP, therefore the previous (SIP-approved) version was evaluated here.

Compliance Status

The rule applies to the boiler on P-105-90(a1). The source is currently in compliance with the rule.

Streamlining Demonstration

The requirements of the rule can be streamlined by conditions required by District Rule 3.4 (New Source Review). The streamlining demonstration is shown below:

Streamlined Requirement: The Permit Holder shall not release or discharge into the atmosphere from any source, particulate matter in excess of 0.3 grains per cubic foot of exhaust volume as calculated to standard conditions.

The District Rule 3.4 requirement in P-105-90(a1) is 0.01 gr/dscf. The Rule 2.11 requirements are streamlined by the New Source Review requirement.

RULE 2.12 Specific Contaminants (Adopted 7/19/74)

Rule Description

This rule specifies the allowable sulfur dioxide emission rates at standard conditions. This rule was updated 1/13/10, however the rule has not yet been approved as part of the SIP, therefore the previous (SIP-approved) version was evaluated here.

Compliance Status

The rule applies to the boiler (P-105-90(a1)). The source is currently in compliance with the rule.

Streamlining Demonstration

The requirements of the rule can be streamlined by conditions required by District Rule 3.4 (New Source Review). The requirements for particulate matter have been streamlined by the previous rule. The streamlining demonstration for sulfur dioxide is shown below:

Streamlined Requirement: The Permit Holder shall not release or discharge into the atmosphere from any single source a) sulfur dioxide in excess of 0.2 percent by volume; b) particulate matter in excess of 0.3 grains per cubic foot of exhaust volume as calculated to standard conditions.

The District Rule 3.4 requirement in P-105-90(a1) is 316.8 lb/day SO_x. The corresponding emission concentration is determined below using the exhaust flow rate from the most recent source test (5/27/10) and standard molar conversions:

$$=316.8 \text{ lb/day} * 385 \text{ scf/mole} * \text{lb-mol}/64 \text{ lb SO}_2 * 1 \text{ day}/1,440 \text{ min} * 1 \text{ min} /94,827 \text{ scf} * 100 = 0.0014\%$$

The Rule 2.12 requirements are streamlined by the New Source Review requirements.

RULE 2.16 Fuel Burning Heat or Power Generators (Adopted 10/1/71)

Rule Description

This rule specifies the allowable sulfur dioxide, nitrogen oxides calculated as nitrogen dioxide, and combustion particulate limits for non-mobile, fuel burning, heat or power generating units in the District.

Compliance Status

The rule applies to the boiler (P-105-90(a1)). The source is currently in compliance with the rule.

Streamlining Demonstration

The permit holder shall not build, expand, or operate any non-mobile fuel burning equipment for a heat or power generator unit unless the discharge into the atmosphere of contaminants will not and does not exceed any one or more of the following rates: a) 200 pounds per hour of sulfur compounds, calculated as sulfur dioxide (SO₂); b) 140 pounds per hour of nitrogen oxides, calculated as nitrogen dioxide (NO₂); c) 40 pounds per hour of combustion particulate derived from the fuel.

Streamlined Requirement: The daily sulfur compound limit for the boiler unit is 316.8 pounds per day. This limit is based on 24 hour/day operation, therefore the hourly emission rate is $316.8 \text{ lb/day} * 1 \text{ day}/24 \text{ hours} = 13.2 \text{ lb/hour}$.

The daily nitrogen oxide compound limit for the boiler unit is 631.2 pounds per day. This limit is based on 24 hour/day operation, therefore the hourly emission rate is $631.2 \text{ lb/day} * 1 \text{ day}/24 \text{ hours} = 26.3 \text{ lb/hour}$.

The daily combustion particulate limit for the boiler unit is 172.8 pounds per day. This limit is based on 24 hour/day operation, therefore the hourly emission rate is $172.8 \text{ lb/day} * 1 \text{ day}/24 \text{ hours} = 7.2 \text{ lb/hour}$.

The Rule 2.16 requirements are streamlined by the New Source Review requirements.

RULE 2.17 Circumvention (Adopted 10/1/71)

Rule Description

This rule prevents sources from concealing emissions to the atmosphere.

Compliance Status

The rule is applicable to all emission units at the facility. The source is currently in compliance with the rule.

Permit Condition

The permit holder shall not build, erect, install or use any article, machine, equipment, or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26, Part 3 and Part 4 of the Health and Safety Code of the State of California or District Rules or Regulations. [District Rule 2.17]

RULE 2.19 Particulate Matter Process Emission Rate (Adopted 10/1/71)

Rule Description

This rule limits the pound per hour particulate matter emission rate based on the amount of material processed. The source is currently in compliance with the rule.

Compliance Status

This rule is applicable to the boiler (P-105-90(a1)). The source is currently in compliance with the rule.

Streamlining Demonstration

Streamlined Requirement: The Permit Holder shall not discharge in any one hour particulate matter of a weight in excess of the amount shown in the table of District Rule 2.19.

The District Rule 3.4 requirement on P-105-90(a1) is 7.2 lb/hr PM₁₀. The throughput for this unit is 25 tons/hour, or 50,000 lbs/hour process weight. The allowable emission rate that corresponds to the 50,000 lb/hour process rate is 35 lb PM/hr. The hourly permitted PM limit is more stringent than the Rule 2.19 requirement.

The Rule 2.19 requirements are streamlined by the New Source Review requirements.

RULE 3.1 General Permit Requirements (Adopted 2/23/94)

Rule Description

The purpose of this rule is to provide an orderly procedure for the review of new sources of air pollution and of the modification and operation of existing sources through the issuance of permits.

Compliance Status

The source is currently in compliance with the rule.

Permit Conditions

No person shall build, erect, alter, or replace any facility, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants, without first obtaining an authorization to construct from the Air Pollution Control Officer as specified in Section 401 of District Rule 3.1. [District Rule 3.1, §301.1]

No person shall operate any facility, article, machine, equipment, or other contrivance, for which an authorization to construct is required by District Rules

and Regulations without first obtaining a written permit from the Air Pollution Control Officer. [District Rule 3.1, §302.1]

No person shall operate any facility, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants, without obtaining a permit from the Air Pollution Control Officer or the Hearing Board. [District Rule 3.1, §302.2]

The owner or operator of any facility, article, machine, equipment, or other contrivance for which a permit to operate is in effect shall notify the District office whenever a breakdown, malfunction, or operational upset condition exists which would tend to increase emissions of air pollutants or whenever any operating condition contrary to any provision of the permit to operate exists. Such notice shall be given to the District no later than four hours after occurrence during regular workday hours or no later than two hours of the District workday following an occurrence not during regular District workday hours. The notice shall provide the District information as to causes and corrective action being taken, with a schedule for return to required operating conditions. [District Rule 3.1, §405.3]

For the boiler (P-105-90(a1)), mass emissions in excess of the daily PERMITTED EMISSION LIMITS shall be reported to the District within 96 hours after such occurrence. Such violations shall be subject to the appropriate enforcement action. [District Rule 3.1, Section 405.4]

For the boiler (P-105-90(a1)), all records shall be kept for a minimum of five years and made available to the District upon request. [District Rule 3.1, Section 402]

RULE 3.4 New Source Review (Revised 8/13/97)

Rule Description

This rule applies to all new stationary sources and emissions units and all modifications to existing stationary sources and emissions units which are subject to Rule 3.1, GENERAL PERMIT REQUIREMENTS, and which, after construction or modification, emit or may emit any affected pollutants. This rule shall not apply to prescribed burning of forest, agriculture or range land, road construction or any other non-point source common to timber harvesting or agricultural practices. The purpose of this rule is to provide for the review of new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.

Compliance Status

The source has satisfied the provisions of New Source Review. The New Source Review requirements were imposed on the most recent Authorities to Construct issued to the source. The New Source Review Requirements are shown below:

Permit Conditions

Emission Limits

The VOC emissions from the boiler (P-105-90(a1)) shall not exceed 420.0 lb/day, 37,800 lb/1st calendar quarter, 38,220 lb/2nd calendar quarter, 38,640 lb/3rd calendar quarter, 38,640 lb/4th calendar quarter, and 65.60 tons/year. [District Rule 3.4/C-09-124]

The CO emissions from the boiler (P-105-90(a1)) shall not exceed 1,188.0 lb/day, 106,920 lb/1st calendar quarter, 108,108 lb/2nd calendar quarter, 109,296 lb/3rd calendar quarter, 109,296 lb/4th calendar quarter, and 185.60 tons/year. [District Rule 3.4/C-09-124]

The NOx emissions from the boiler (P-105-90(a1)) shall not exceed 631.2 lb/day, 56,808 lb/1st calendar quarter, 57,439 lb/2nd calendar quarter, 58,070 lb/3rd calendar quarter, 58,070 lb/4th calendar quarter, and 98.60 tons/year. [District Rule 3.4/C-09-124]

The SOx emissions from the boiler (P-105-90(a1)) shall not exceed 316.8 lb/day, 28,512 lb/1st calendar quarter, 28,829 lb/2nd calendar quarter, 29,146 lb/3rd calendar quarter, 29,146 lb/4th calendar quarter, and 49.50 tons/year. [District Rule 3.4/C-09-124]

The PM10 emissions from the boiler (P-105-90(a1)) shall not exceed 172.8 lb/day, 15,552 lb/1st calendar quarter, 15,725 lb/2nd calendar quarter, 15,898 lb/3rd calendar quarter, 15,898 lb/4th calendar quarter, and 27.00 tons/year. [District Rule 3.4/C-09-124]

Except during periods of start-up or shut-down, the permit holder shall operate the fluidized bed combustion system (P-105-90(a1)) in a manner such that the exhaust stack emissions are less than the following values, as determined by the average value of three one-hour source tests and based upon the measured heat input during the source tests: [District Rule 3.4, Section 409.1/C-09-124]

VOC (as methane)	0.05 lb/MMBtu;
CO	0.15 lb/MMBtu;
NOx (as NO ₂)	0.08 lb/MMBtu;
SOx (as SO ₂)	0.04 lb/MMBtu;
PM10 (front and back half)	0.010 gr/dscf (referenced to 12% CO ₂);
PM10 (front half)	0.007 gr/dscf (referenced to 12% CO ₂);
	and

Ammonia slip

50 parts per million by volume dry (ppmvd).

Except during periods of start-up or shut-down, the permit holder shall operate the fluidized bed combustion system (P-105-90(a1)) in a manner such that the exhaust stack emissions are less than the following values, as determined by the average value of three one-hour source tests: [District Rule 3.4, Section 409.1/C-09-124]

VOC (as methane)	17.5 lb/hr;
CO	49.5 lb/hr;
NOx (as NO ₂)	26.3 lb/hr;
SOx (as SO ₂)	13.2 lb/hr;
PM10 (front and back half)	7.2 lb/hr; and
PM10 (front half)	5.0 lb/hr.

During periods of startup, shutdown, and malfunction, the permit holder shall operate the fluidized bed combustion system in a manner such that the exhaust stack emissions are less than the following values, as determined by the CEMS system: [40 CFR 60.44b]

NOx (as NO₂) 0.30 lb/MMBtu (30 day rolling average)

Work Practice and Operational Requirements

For the boiler (P-105-90(a1)), a curing startup shall not exceed 96 hours in duration and a non-curing startup shall not exceed 24 hours in duration. [District Rule 3.4/C-09-124]

For the boiler (P-105-90(a1)), a gauge shall be maintained to indicate the differential pressure across the baghouse bags. The baghouse bags shall be cleaned or replaced before the differential pressure reaches the critical pressure, as determined by the manufacturer of the bags. [District Rule 3.4/C-09-124]

For the boiler (P-105-90(a1)), the permit holder shall fully offset all actual VOC emissions from this permit unit and shall fully offset all actual PM10 emissions from the entire facility, on a calendar quarter basis, by diverting qualified agricultural biomass from being burned in the field. [District Rule 3.4/C-09-124]

The boiler shall only be fired on biomass fuels or supplemental fuel. Biomass fuels shall be limited to: [District Rule 3.4, Section 409.1/C-09-124]

- a. Sawmill residue;
- b. Forest residue;
- c. Urban wood (defined as clean, chipped material derived from construction and demolition materials, pallets, crates, boxes, and tree trimmings). This fuel shall not contain pressure treated wood (except as listed in section e. below) and shall not contain compounds listed in CCR 66261.24(a)(2)(A) in amounts exceeding the TTLC values;

- d. Agricultural residues (defined as organic plant-based material generated by agricultural operations). Agricultural residues include but are not limited to: grasses, reject seed, corn cobs; orchard and vineyard prunings (including from orchard removals); prune, peach and olive pits; coffee and cocoa beans; almond shells and hulls; walnut shells; and rice hulls; *or*
- e. Railroad Ties (only creosote treated). This fuel shall comply with the provisions of CCR 66261.24.

For the boiler (P-105-90(a1)), the creosote treated railraod ties shall not exceed 25% (by weight) of the total biomass fuel burned at any time. [District Rule 3.4/C-09-124]

Natural gas shall be the only supplementary fuel for the boiler (P-105-90(a1)). The use of natural gas shall be limited to 250 MMBtu/hr. Offset credits shall be used for any emissions generated by the combustion of natural gas. [District Rule 3.4, Section 409.1/C-09-124]

The permit holder shall operate the fluidized bed combustion system (P-105-90(a1)) in a manner such that the exhaust stack emissions are less than the PERMITTED EMISSION LIMITS (daily, quarterly and annual), as determined by the CEMS. [District Rule 3.4, Section 409.1/C-09-124]

The amount of VOC and PM10 credits (calculated separately) required from the boiler (P-105-90(a1)) are calculated as follows: [District Rule 3.4, Section 409.1/C-09-124]

$$E = (Sa/Sp) * h * ER$$

where E = emission credits required
Sa = hourly average recorded steam flow for the calendar quarter
Sp = hourly maximum steam production as determined during source testing, or 255,000 lbs/hour, whichever is less
h = hours of operation for the calendar quarter
ER = emission rate (lb/hour - average of three runs) at maximum boiler firing rate from most recent source test

For the Boiler (P-105-90(a1)), the amount of VOC and PM10 credits (calculated separately) generated are calculated as follows: [District Rule 3.4, Section 409.1/C-09-124]

$$EC = \text{Summation } [1/DFi * Ai * EFi]$$

where EC = emission credits generated in pounds per calendar quarter

DFi = distance factor

Ai = amount of each type of qualified agricultural biomass material, in tons per quarter (field condition)

EF_i = emission factor, in pounds of pollutant (P) per ton of qualified agricultural biomass material (in field condition moisture) open burned

For the Boiler (P-105-90(a1)) the Distance Factor (DF) shall be 1.2 for agricultural waste diverted from open burning within a 15 mile radius of the source claiming offsets, and 2.0 for agricultural waste diverted from open burning 15 miles or more from the source claiming offsets. [District Rule 3.4, Section 409.1/C-09-124]

For the Boiler (P-105-90(a1)) the Emission Factors (EF) are as follows*: [District Rule 3.4, Section 409.1/C-09-124]

Fuel type	Emission Factor (lb/ton)	
	VOC	PM10
Rice Straw	4.7	6.3
Wheat Straw	7.6	10.6
Almond Prunings	5.2	7.0
Apricot Prunings	4.6	5.9
Cherry Prunings	6.0	7.9
Grape Prunings	3.8	4.9
Peach Prunings	3.0	5.9
Pear Prunings	5.1	8.8
Prune Prunings	4.6	2.9
Walnut Prunings	4.8	4.2
Other Prunings	6.3	7.8

*Given in field condition moisture

Monitoring and Testing Requirements

For the boiler (P-105-90(a1)), the permit holder shall calibrate, maintain, and operate a continuous emission monitoring system (CEMS) for O₂, CO, SO₂, NO_x, Opacity, and Volumetric Flow. [District Rule 3.4/C-09-124]

A quality assurance/quality control (QC) program for the CEMS shall be maintained. As a minimum, the QC program must include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities: [District Rule 3.4/C-09-124]

- a. Calibrations of CEMS;
- b. Calibration Drift (CD) determination and adjustment of CEMS;
- c. Preventive Maintenance of CEMS (including spare parts inventory);
- d. Data recording, calculations, and reporting procedures;
- e. Accuracy audit procedures including sampling and analysis methods; and
- f. Program for corrective action for malfunctioning CEMS.

For the boiler (P-105-90(a1)), the permit holder shall install and maintain such facilities as are necessary for sampling and testing purposes. The number, size, and location of sampling ports shall be in accordance with Air Resources Board Test Method 1 or EPA Test Methods. The location and access to the sampling platform shall be in accordance with the General Industry Safety Orders of the State of California. [District Rule 3.4/C-09-124]

For the boiler (P-105-90(a1)), the permit holder shall perform an initial source test to determine compliance with the Toxic Air Contaminant emission limitations approved by the District. [District Rule 3.4/C-09-124]

For the boiler (P-105-90(a1)), Toxic Air Contaminant emission rates from the boiler shall not exceed the amounts approved by the District for this permit. [District Rule 3.4/C-09-124]

For the boiler (P-105-90(a1)), source testing for Toxic Air Contaminants shall be conducted using the test methods approved by the District. [District Rule 3.4/C-09-124]

For the boiler (P-105-90(a1)), the permit holder shall perform a source test at least once every 12 consecutive calendar months in order to demonstrate compliance with the following. The District reserves the right to require the permit holder to demonstrate compliance with additional parameters in order to address or ascertain compliance with the requirements of this permit. [District Rule 3.4/C-09-124]:

- a. VOC concentration (lb/MMBtu) and emission rate (lb/hour);
- b. CO concentration (lb/MMBtu) and emission rate (lb/hour);
- c. NO_x concentration (lb/MMBtu) and emission rate (lb/hour);
- d. SO_x concentration (lb/MMBtu) and emission rate (lb/hour);
- e. PM₁₀ (front and back half) concentration (gr/dscf) and emission rate (lb/hour);
- f. PM₁₀ (front half) concentration (gr/dscf) and emission rate (lb/hour);
- g. NH₃ concentration (ppmvd);
- h. Oxygen and Carbon Dioxide concentration (%);
- i. Exhaust stack gas flow rate (dscfm);
- j. Measured heat input rate (MMBtu/hr); and
- k. The higher heating value (dry basis) of the biomass fuel.

For the boiler (P-105-90(a1)), source testing shall be conducted using the following test methods. Alternative test methods may be used if approved in advance by the District. [District Rule 3.4/C-09-124]

- a. VOC - EPA method 18, 25, or 25A,
- b. CO - EPA method 10,
- c. NOx (as NO₂) - EPA method 7E,
- d. SOx (as SO₂) - EPA method 6,
- e. PM₁₀ (front and back half, adjusted for ammonia salts) - EPA method 5 with impinger analysis and South Coast AQMD Method 5.2,
- f. Stack gas oxygen and carbon dioxide - EPA method 3 or 3A,
- g. Flow rate - EPA methods 1 through 4,
- h. NH₃ - Bay Area Air Quality Management District (BAAQMD) Method ST-1B,
- i. HHV - ASTM Method D 2015 or E 711.

For the boiler (P-105-90(a1)), the District must be notified prior to any compliance source test, and a source test plan must be submitted for approval 30 days prior to testing. The results of the source test shall be submitted to the District within 60 days of the test date. [District Rule 3.4/C-09-124]

Recordkeeping Requirements

For the boiler (P-105-90(a1)), the permit holder shall maintain the following records [District Rule 3.4/(C-09-124)]:

- a. daily, quarterly, and annual hours of operation,
- b. the date and time of each occurrence, duration, and type of any start-up or shut-down event,
- c. emission measurements from all source testing and fuel analyses,
- d. equipment breakdowns or malfunctions,
- e. daily, quarterly, and annual records of the measured cumulative CO, NO_x, and SO_x mass emissions,
- f. daily, quarterly, and annual records of the calculated (using the measured steam per period and the emission concentration from the previous source test) cumulative VOC and PM₁₀ mass emissions,
- g. any emissions in excess of the PERMITTED EMISSION LIMITS section as recorded by the CEM or source test data,
- h. all records from the CEMS, including performance testing, evaluations, calibrations, checks, maintenance, adjustments, and any period of non-operation of any CEM.

All records shall be kept for a minimum of five years and made available to the District upon request. [District Rule 3.4/C-09-124]

RULE 3.5 Emission Reduction Credits (Adopted 11/13/96)

Rule Description

This rule provides an administrative mechanism for quantifying, adjusting, and certifying surplus emission reductions.

Compliance Status

The source is currently in compliance with the rule.

Permit Conditions

The permit holder shall maintain a daily log of all biomass received by type, origin, certified weight, and date. Records shall include certifications that any creditable biomass has historically been openly burned in the Sacramento air basin. [District Rule 3.5, Section 501]

RULE 3.8 Federal Operating Permits (Revised 4/11/01)

Rule Description

This Rule implements the requirements of Title V of the Federal Clean Air Act as amended in 1990 (CAA) for permits to operate. Title V provides for the establishment of operating permit programs for sources which emit regulated air pollutants, including attainment and non-attainment pollutants.

Compliance Status

The source has submitted a timely and complete Title V application and is currently operating under an application shield.

Permit Conditions

Right of Entry

The permit shall require that the source allow the entry of the District, ARB, or U.S. EPA officials for the purpose of inspection and sampling, including:

- a. Inspection of the stationary source, including equipment, work practices, operations, and emissions-related activity;
- b. Inspection and duplication of records required by the permit to operate; and
- c. Source sampling or other monitoring activities. [District Rule 3.8, §302.10]

Compliance with Permit Conditions

The permittee shall comply with all Title V permit conditions. [District Rule 3.8, §302.11a]

The permit does not convey property rights or exclusive privilege of any sort. [District Rule 3.8, §302.11b]

Non-compliance with any permit condition is grounds for permit termination, revocation and reissuance, modification, enforcement action, or denial of permit renewal. [District Rule 3.8, §302.11c]

The permittee shall not use the "need to halt or reduce a permitted activity in order to maintain compliance" as a defense for non-compliance with any permit condition. [District Rule 3.8, §302.11d]

A pending permit action or notification of anticipated non-compliance does not stay any permit condition. [District Rule 3.8, §302.11e]

Within a reasonable time period, the permittee shall furnish any information requested by the APCO, in writing, for the purpose of determining:

- a. Compliance with the permit; or
- b. Whether or not cause exists for a permit or enforcement action. [District Rule 3.8, §302.11f]

Emergency Provisions

Within two weeks of an emergency event, the owner or operator shall submit to the District a properly signed contemporaneous log or other relevant evidence demonstrating that:

- (i) An emergency occurred;
- (ii) The permittee can identify the cause(s) of the emergency;
- (iii) The facility was being properly operated at the time of the emergency;
- (iv) All steps were taken to minimize the emissions resulting from the emergency; and
- (v) Within two working days of the emergency event, the permittee provided the District with a description of the emergency and any mitigating or corrective actions taken; and

In any enforcement proceeding, the permittee has the burden of proof for establishing that an emergency occurred. [District Rule 3.8, §302.12]

Severability

If any provision, clause, sentence, paragraph, section or part of these conditions for any reason is judged to be unconstitutional or invalid, such judgement shall not affect or invalidate the remainder of these conditions. [District Rule 3.8, §302.13]

Compliance Certification

The responsible official shall submit a compliance certification to the U.S. EPA and the APCO every 12 months unless required more frequently by an applicable requirement. [District Rule 3.8, §302.14a]

The compliance certification shall identify the basis for each permit term or condition (e.g., specify the emissions limitation, standard, or work practice) and a means of monitoring compliance with the term or condition consistent with Sections 302.5, 302.6, and 302.7 of Rule 3.8. [District Rule 3.8, §302.14b]

The compliance certification shall include a statement of the compliance status, whether compliance was continuous or intermittent, and method(s) used to determine compliance for the current time period and over the entire reporting period. [District Rule 3.8, §302.14c]

The compliance certification shall include any additional inspection, monitoring, or entry requirement that may be promulgated pursuant to Sections 114(a) and 504(b) of the Federal Clean Air Act. [District Rule 3.8, §302.14d]

Permit Life

The Title V permit shall expire five years from the date of issuance. Title V permit expiration terminates the stationary source's right to operate unless a timely and complete Title V permit application for renewal has been submitted. [District Rule 3.8, §302.15]

Payment of Fees

An owner or operator shall pay the appropriate Title V permit fees on schedule. If fees are not paid on schedule, the permit is forfeited. Operation without a permit subjects the source to potential enforcement action by the District and the U.S. EPA pursuant to Section 502(a) of the CAA. [District Rule 3.8, §302.16]

Permit Revision Exemption

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes, for changes that are provided for in the permit. [District Rule 3.8 §302.22]

Application Requirements

An owner or operator shall submit a standard District application for renewal of the Title V permit, no earlier than 18 months and no later than six months before the expiration date of the current permit to operate. [District Rule 3.8, §402.2]

An owner or operator shall submit a standard District application for each emissions unit affected by a proposed permit revision that qualifies as a significant Title V permit modification. The application shall be submitted after

obtaining any required preconstruction permits. Upon request by the APCO, the owner or operator shall submit copies of the latest preconstruction permit for each affected emissions unit. The emissions unit(s) shall not commence operation until the APCO approves the permit revision. [District Rule 3.8, §402.3]

An owner or operator shall submit a standard District application for each emissions unit affected by the proposed permit revision that qualifies as a minor permit modification. The application shall be submitted after obtaining any required preconstruction permits. The emissions unit(s) shall not commence operation until the APCO approves the permit revision. In the application, the owner or operator shall include the following:

- a. A description of the proposed permit revision, any change in emissions, and additional applicable federal requirements that will apply;
- b. Proposed permit terms and conditions; and
- c. A certification by a responsible official that the permit revision meets criteria for use of minor permit modification procedures and a request that such procedures be used. [District Rule 3.8, §402.4]

Permit Reopening for Cause

Circumstances that are cause for reopening and revision of a permit include, but are not limited to, the following:

- a. The need to correct a material mistake or inaccurate statement;
- b. The need to revise or revoke a permit to operate to assure compliance with applicable federal requirements;
- c. The need to incorporate any new, revised, or additional applicable federal requirements, if the remaining authorized life of the permit is 3 years or greater, no later than 18 months after the promulgation of such requirement (where less than 3 years remain in the authorized life of the permit, the APCO shall incorporate the requirements into the permit to operate upon renewal); or
- d. Additional requirements promulgated pursuant to Title IV as they become applicable to any acid rain unit governed by the permit. [District Rule 3.8, §413.1]

Recordkeeping

The permit holder shall record maintenance of all monitoring and support information required by any applicable federal requirement, including:

- (i) Date, place, and time of sampling;
- (ii) Operating conditions at the time of sampling;
- (iii) Date, place, and method of analysis; and
- (iv) Results of the analysis. [District Rule 3.8, §302.6a]

The permit holder shall retain records of all required monitoring data and support information for a period of at least five years from the date of sample collection, measurement, report, or application. [District Rule 3.8, §302.6b]

Reporting Requirements

Any deviation from permit requirements, including that attributable to upset conditions (as defined in the permit), shall be promptly reported to the APCO. For the purpose of this condition prompt means as soon as reasonably possible, but no later than 10 days after detection. [District Rule 3.8, §302.7a]

A monitoring report shall be submitted at least every six months and shall identify any deviation from permit requirements, including that previously reported to the APCO pursuant to Section 302.7. a of Rule 3.8. [District Rule 3.8, §302.7b]

All reports of deviation from permit requirements shall include the probable cause of the deviation and any preventive or corrective action taken. [District Rule 3.8, §302.7c]

Each monitoring report shall be accompanied by a written statement from the responsible official that certifies the truth, accuracy, and completeness of the report. [District Rule 3.8, §302.7e]

RULE 3.23 Acid Deposition Control (Adopted 8/12/09)

Rule Description

The purpose of this rule is to provide for the issuance of Acid Rain Permits as required under the provisions of Title IV of the Federal Clean Air Act by incorporating those provisions, as promulgated by the United States Environmental Protection Agency (US EPA), at 40 Code of Federal Regulations (CFR) Parts 72 through 78, into this rule by reference.

Compliance Status

This source is exempt from this rule per section 102 of the rule. Section 102 refers to the applicability in 40 CFR Part 72. Per section 72.6(b)(5), the facility is exempt if they are a qualifying facility that had a qualifying power purchase commitment to sell at least 15% of the total planned net output capacity (see email from source) and has an installed net output capacity not exceeding 130% of the planned net output capacity.

The source is a qualifying facility under section 72.2, which points to 16 USC 796 (Federal Power Act). The source meets the title 16, section 796 definition of qualifying facility under section (17)(A) and (17)(C) because it uses biomass as a primary fuel and has a capacity less than 80 MW.

Per section 72.2, the source had a qualifying power purchase commitment that was in effect on 11/15/90 that met the requirements of the definition (see email from source, attached).

Permit Conditions

No permit conditions are required.

40 CFR Part 60, Subpart A - General Provisions

Rule Description

This subpart provides general monitoring, record keeping, performance, and compliance requirements for sources that are subject to New Source Performance Standards (NSPS).

Compliance Status

This subpart is applicable to the boiler on P-105-90(a1). The source is currently in compliance with this subpart.

Streamlining Demonstration

Streamlined Requirement: The source owner or operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]

The District Rule 3.4 requirement on P-105-90(a1) is:

The permit holder shall maintain the following records [District Rule 3.4/C-09-124]):

- a. daily, quarterly, and annual hours of operation,
- b. the date and time of each occurrence, duration, and type of any start-up or shut-down event,
- c. emission measurements from all source testing and fuel analyses,
- d. equipment breakdowns or malfunctions,
- e. daily, quarterly, and annual records of the measured cumulative CO, NO_x, and SO_x mass emissions,
- f. daily, quarterly, and annual records of the calculated (using the measured steam per period and the emission concentration from the previous source test) cumulative VOC and PM₁₀ mass emissions,
- g. any emissions in excess of the PERMITTED EMISSION LIMITS section as recorded by the CEM or source test data,
- h. all records from the CEMS, including performance testing, evaluations, calibrations, checks, maintenance, adjustments, and any period of non-operation of any CEM.

The District Rule 3.4 condition is more stringent than the NSPS condition. The 40 CFR requirement is streamlined by the District Rule 3.4 requirement.

Streamlined Requirement: The source owner or operator shall maintain a file of all measurements, maintenance reports, and records in a permanent form suitable for inspection. The file shall be retained for at least 2-years. [40 CFR 60.7(f)]

The District Rule 3.4 requirement on P-105-90(a1) is:
All records shall be kept for a minimum of five years and made available to the District upon request. [District Rule 3.4/(C-09-124)]

The District Rule 3.4 condition is more stringent than the NSPS condition. The 40 CFR requirement is streamlined by the District Rule 3.4 requirement.

Permit Conditions

The source owner or operator shall submit a quarterly excess emissions and monitoring system performance report and/or a summary report form to the District and EPA, Region IX within 30 days of the end of each quarter. [40 CFR 60.7(a)(7)(c)]

The source owner or operator shall include excess emissions in the monitoring system performance report if the total duration of excess emissions for the reporting period is 1% or greater of the total operating time, or if the total duration of continuous monitoring system downtime is 5% or greater of the total operating time for the reporting period. When excess emissions are included in the monitoring system performance report, the source owner or operator shall also include the date, duration, and amount of excess emissions. [40 CFR 60.7(d)(2)]

The continuous monitoring system shall be in continuous operation except for system breakdowns, repairs, calibration checks, and zero and span adjustments. [40 CFR 60.13(e)]

The source owner or operator shall check the zero and span calibration drifts at least once daily (24-hour) in accordance with a written procedure. [40 CFR 60.13(d)(1)]

The zero and span shall be adjusted whenever the daily zero drift or the daily span drift deviates from the reference value of the calibration gas by more than two-times 2.5% of the span value. [40 CFR 60.13(d)(1)]

The continuous monitoring system shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [40 CFR 60.13(e)(2)]

One-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. [40 CFR 60.13(h)]

The data accumulated during periods of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, shall not be included in the data average. [40 CFR Part 60.13(h)]

40 CFR Part 60, Subpart D - Standards of Performance for Fossil-Fuel Fired Steam Generators

Rule Description

This subpart contains emission guidelines and monitoring requirements for fossil fuel fired steam generators.

Compliance Status

This subpart is applicable to fossil fuel fired steam generators over 250 MMBtu per hour. The source is limited by permit condition to burn less than 250 MMBtu of natural gas, which is a fossil fuel. All other fuels burned at the facility are not fossil fuels, therefore this subpart is not applicable to the source.

Permit Conditions

The following condition is included as a requirement by District Rule 3.4, but is included here to show enforceability of the exemption from the subpart:

Natural gas shall be the only supplementary fuel for the boiler (P-105-90(a1)). The use of natural gas shall be limited to 250 MMBtu/hr. Offset credits shall be used for any emissions generated by the combustion of natural gas. [District Rule 3.4, Section 409.1/C-09-124]

40 CFR Part 60, Subpart Da - Standards of Performance for Electric Utility Steam Generating Units

Rule Description

This subpart contains emission guidelines and monitoring requirements for electric utility steam generating units.

Compliance Status

This subpart is applicable to electric utility steam generators that can burn over 250 MMBtu per hour of fossil fuel. The source is limited by permit condition to burn less than 250 MMBtu of natural gas. This subpart is not applicable to the source.

Permit Conditions

The following condition is included as a requirement by District Rule 3.4, but is included here to show enforceability of the exemption from the subpart:

Natural gas shall be the only supplementary fuel for the boiler (P-105-90(a1)). The use of natural gas shall be limited to 250 MMBtu/hr. Offset credits shall be used for any emissions generated by the combustion of natural gas. [District Rule 3.4, Section 409.1/C-09-124]

40 CFR Part 60, Subpart Db - Standards of Performance for Industrial, Commercial, Institutional Steam Generating Units

Rule Description

This subpart contains emission guidelines and monitoring requirements for industrial, commercial, and institutional steam generating units.

Compliance Status

This subpart is applicable to steam generators with a heat input capacity over 100 MMBtu per hour and was constructed or modified after June 19, 1984. This subpart is applicable to the boiler on P-105-90(a1).

Streamlining Demonstration

Streamlined Requirement: The source shall not cause to be discharged into the atmosphere any gases that contain nitrogen oxides in excess of 0.30 lb/million Btu heat input. [40 CFR 60.44b(d)]

The District Rule 3.4 requirement on P-105-90(a1) is 0.08 lb/MMBtu NO_x, except during startup and shutdown. The permitted NO_x limit is more stringent than the 40 CFR requirement for normal operations.

The 40 CFR requirement is streamlined by the New Source Review requirement for normal operations, however the 40 CFR condition will remain for startup, shutdown, and malfunction conditions.

Permit Condition

During periods of startup, shutdown, and malfunction, the permit holder shall operate the fluidized bed combustion system in a manner such that the exhaust stack emissions are less than the following values, as determined by the CEMS system: [40 CFR 60.44b(d)]

NO _x (as NO ₂)	0.30 lb/MMBtu (30 day rolling average)
---------------------------------------	----------------------------------------

Streamlined Requirements: The facility shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system. [40 CFR 60.48b(a)]

The facility shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the nitrogen oxides emissions discharged to the atmosphere and record the output of the system. [40 CFR 60.48b(b)(1)]

The District Rule 3.4 requirement on P-105-90(a1) is:

The permit holder shall calibrate, maintain, and operate a continuous emission monitoring system (CEMS) for O₂, CO, SO₂, NO_x, Opacity, and Volumetric Flow. [District Rule 3.4/(C-09-124)]

The permit condition is equally or more stringent than the NSPS requirement.

The 40 CFR requirement is streamlined by the District Rule 3.4 requirement.

Streamlined Requirement: All records required under section 60.49b shall be maintained by the owner or operator of the facility for a period of 2 years following the date of such record. [40 CFR 60.49b(o)]

The District Rule 3.4 requirement on P-105-90(a1) is:

All records shall be kept for a minimum of five years and made available to the District upon request. [District Rule 3.4/C-09-124 and 40 CFR 60.49b(o)]

The 40 CFR requirement is streamlined by the District Rule 3.4 requirement.

Permit Conditions

For the boiler (P-105-90(a1)), for in-stack opacity purposes, except during periods of startup, shutdown, and malfunction, the source shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity. [40 CFR 60.43b(f) and (g)]

The facility shall determine compliance with the nitrogen oxides standards on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(3)]

The continuous monitoring system for nitrogen oxides shall be operated and data recorded during all periods of operation of the facility, except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)]

The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor shall be expressed in lb/million Btu heat input and shall be used to calculate the average emissions rates. The 1-hour averages shall be calculated using the data points required under section 60.13(b). At least two data points must be used to calculate each 1-hour average. [40 CFR 60.48b(d)]

The span value for the continuous monitoring system for measuring opacity shall be between 60 and 80 percent. [40 CFR 60.48b(e)(1)]

For the boiler (P-105-90(a1)), the span value for the continuous monitoring system for measuring nitrogen oxides shall be between 1.5 times the applicable emission standard level and the span value given in the applicable regulation (500 ppm). [40 CFR 60, Appendix B, Section 6.1.1.2 and 40 CFR 60.48b(e)(2)]

When nitrogen oxides emissions data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)]

The owner/operator of the facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for natural gas and wood for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR 60.49b(d)]

The owner or operator shall maintain records of opacity. [40 CFR 60.49b(f)]

The Permit Holder shall maintain records of the following information for each day the boiler is operated. The records shall be updated monthly and submitted to the District for each calendar year within 60 days of the end of the calendar year.

- a. Calendar date;
- b. The average daily nitrogen oxides (expressed as NO₂) and CO emission rates (lb/hour) measured;
- c. The 30-day average nitrogen oxides emission rates (lb/hour) calculated at the end of each boiler operating day from the measured hourly nitrogen oxide emission rates for the preceding 30 boiler operating days;
- d. Identification of the boiler operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxide emission limitations of this permit, with the reasons for such excess emissions as well as a description of corrective actions taken;

- e. Identification of the boiler operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
- f. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
- g. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
- h. Identification of the times when the pollutant concentration exceeded full span of the CEMS;
- i. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with 40 CFR Part 60 Appendix B, PERFORMANCE SPECIFICATIONS 2 or 3;
- j. Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR Part 60 appendix F, Procedure 1;
- k. Time and duration of boiler start-up and shutdown events; and
- l. Time and duration of equipment and/or control equipment malfunction. [40 CFR Part 60.7(b), 60.49 and District Rule 3.4]

The Permit Holder shall submit to the District a written report for each calendar quarter, within 30 days of the end of the calendar quarter, which includes the following:

- a. The date, time intervals, and magnitude of excess permitted emissions or exceedance in opacity computed in accordance with 40 CFR Part 60.13(h);
- b. The date, time intervals, and operating parameters of the baghouse when operating outside the indicated permitted limits;
- c. The nature and cause of the excess emissions, exceedance in opacity or control equipment operation deviation, and corrective actions taken;
- d. The time and date of each period during which the continuous monitoring equipment was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; and
- e. A negative declaration when no excess emissions, exceedance in opacity or control equipment operation deviation occurred, if applicable. [40 CFR Part 60.7(c), 40 CFR Part 60.49b(h) and District Rule 3.4]

The reporting period for the reports required under section 60.49b is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR 60.49b(w)]

40 CFR Part 60, Subpart Dc - Standards of Performance for Small Industrial, Commercial, Institutional Steam Generating Units

Rule Description

This subpart contains emission guidelines and monitoring requirements for small industrial, commercial, and institutional steam generating units.

Compliance Status

This subpart is applicable to industrial, commercial, and institutional steam generators between 10 MMBtu per hour and 100 MMBtu per hour for which construction, modification, or reconstruction is commenced after June 9, 1989. The boiler at the source is rated at 330 MMBtu per hour. This subpart is not applicable to the source.

Permit Conditions

No permit conditions are required.

40 CFR Part 60, Appendix B - Performance Specifications

Rule Description

This rule provides requirements for the design, performance, and installation of a continuous opacity monitoring system (COMS) or a continuous emission monitoring system (CEMS).

Compliance Status

The source is required to follow guidelines from this section when conducting audits/tests of the COMS and CEMS equipment. The source is currently in compliance with this section.

Permit Conditions

No permit conditions are required.

40 CFR Part 60, Appendix F - Quality Assurance Procedures

Rule Description

This section is used to evaluate the effectiveness of quality control (QC) and quality assurance (QA) procedures and the quality of data produced by any continuous emission monitoring system (CEMS) that is used for determining compliance with the emission standards on a continuous basis as specified in the applicable regulation.

Compliance Status

This subpart is applicable to any facility with a CEMS that is used for determining compliance. This subpart is applicable to the source.

Permit Conditions

If either the zero (or low-level) or high-level calibration drift (CD) result exceeds twice the applicable drift specification for five, consecutive daily periods, the CEMS is out-of-control. If either the zero (or low-level) or high-level CD result exceeds four times the applicable drift specification during any CD check, the CEMS is out-of-control. If the CEMS is out-of-control, take necessary action. Following corrective action, repeat the CD checks. [40 CFR 60, Appendix F, Procedure 1, 4.3]

During the period that the CEMS is out-of-control, the CEMS data may not be used in calculating emission compliance nor be counted towards meeting minimum data availability as required and described in the applicable subpart. 40 CFR 60, Appendix F, Procedure 1, 4.3.2]

Each CEMS must be audited at least once each calendar quarter. Successive quarterly audits shall occur no closer than 2 months. [40 CFR 60, Appendix F, Procedure 1, 5.1]

A relative accuracy test audit (RATA) must be conducted at least once every four calendar quarters, except as provided in Procedure 1, section 5.1.4. The RATA shall be conducted in accordance with the test procedure in the applicable performance specification. [40 CFR 60, Appendix F, Procedure 1, 5.1.1]

Whenever excessive inaccuracies occur for two consecutive quarters, the source owner or operator must revise the QC procedures or modify or replace the CEMS. [40 CFR 60, Appendix F, Procedure 1, 5.3]

40 CFR Part 64, Compliance Assurance Monitoring

Rule Description

This subpart provides guidelines for developing a compliance assurance monitoring plan. This plan is a way to ensure that facilities will monitor the appropriate parameters, relating to emissions and control equipment, to ensure that compliance is maintained on an ongoing basis.

Compliance Status

The compliance assurance monitoring plan was completed during the previous renewal period in 2003. There have been no changes to any of the facility's permits since then, therefore the plan will not be changed at this time. However, the plan and justification are discussed below.

This subpart is applicable to facilities with an emissions unit that is subject to an emission limitation or standard for a pollutant where the unit uses an add-on control device to achieve compliance with the emission limitation, and the unit

has a pre-control device potential to emit that is equal to or greater than the major source threshold for that pollutant. This subpart is applicable to the source for NO_x, SO_x, and PM₁₀ for the boiler unit.

The boiler has a pre-control device potential to emit for NO_x that is more than 25 tons per year, which is the major source threshold for NO_x. The boiler has add-on ammonia injection for NO_x control and the source has an emission limitation of 0.08 lb NO_x/MMBtu.

The boiler has a pre-control device potential to emit for SO_x that is more than 100 tons per year, which is the major source threshold for SO_x. The boiler has add-on limestone control for SO_x and the source has an emission limitation of 0.04 lb SO_x/MMBtu.

The boiler has a pre-control device potential to emit for PM₁₀ that is more than 100 tons per year, which is the major source threshold for PM₁₀. The boiler has add-on baghouse control for PM₁₀ and the source has an emission limitation of 0.01 gr/dscf of exhaust volume.

The subpart is not applicable for VOC and CO because there are no add-on control devices for these pollutants on the boiler.

The compliance assurance monitoring requirements for NO_x and SO_x are met by the continuous emissions monitoring systems for those pollutants. There are requirements in the permit for operating and maintaining the system, and for collecting and reporting the data.

40 CFR part 64.3 requires that the operator monitor one or more parameters that indicate the performance of the control device. For the boiler, visible emissions are used as an indicator of PM₁₀ emissions from the fabric filter baghouse. If the control efficiency of the baghouse was significantly reduced (e.g. there was a leak in a filter bag), then visible emissions of 15-20% or greater would be expected, and corrective action would be required.

40 CFR part 64.3 also required that variability be considered in establishing data collection frequency. For most units, at least some data must be collected once every 24 hours. For units with potential to emit in excess of major source thresholds after the control device, data must be collected every 15 minutes. Since the biomass combustion operation is a steady-state continuous process with little variability and the unit does not have a potential to emit in excess of the major source threshold, visible emissions observations would only be required at least once every 24 hours. This source has a continuous opacity monitoring system installed, and has proposed to utilize the COMS unit to collect data every 6 minutes.

Permit Conditions

The Permit Holder shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR 64]

The Permit holder shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR 64.7. [40 CFR 64]

For the boiler (P-105-90(a1)), the 6-minute readings taken by the COMS unit shall be averaged over three hours to produce a 3-hour rolling average, which will be used to determine compliance with the compliance assurance monitoring (CAM) opacity limit of 10%. [40 CFR 64.3]

For the boiler (P-105-90(a1)), except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, the owner or operator shall conduct all monitoring in continuous operation at all times that the emissions unit is operating. [40 CFR 64.7(c)]

For the boiler (P-105-90(a1)), at any time that the continuous opacity monitoring system three hour average is greater than 10% opacity an excursion has occurred, and the Permit Holder shall implement the following corrective actions: use a dye method to identify and isolate the effected cell(s) of the baghouse and repair/replace the faulty bags as required (with the baghouse online). [40 CFR 64.3]

For the boiler (P-105-90(a1)), any time that the COMS reads opacity greater than the CAM opacity limit of 10% (3 hour average), the event shall be defined as an excursion. Any time that the COMS reads opacity greater than the 40 CFR 60, subpart Db limit of 20% or 27% (as applicable), the event shall be defined as an exceedance. [40 CFR 64.1]

For the boiler (P-105-90(a1)), upon detecting an excursion or exceedance, the owner or operator shall restore operation of the emissions unit (including the control/capture device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [40 CFR 64.7(d)]

For the boiler (P-105-90(a1)), if the accumulation of excursions exceeds 5% of the total duration of the emission unit's operating time for the calendar year, the owner or operator shall develop a Quality Improvement Plan (QIP) consistent with 40 CFR 64.8(b). [40 CFR 64.8(a)]

For the boiler (P-105-90(a1)), if a QIP is required, the owner or operator shall develop and implement the QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP will exceed 180 days from the date on which the need to implement the plan was determined. [40 CFR 64.8(c)]

40 CFR Part 72, Acid Rain Program

Rule Description

This section sets forth requirements for different types of acid rain permits.

Compliance Status

See Rule 3.23, above.

Permit Conditions

No permit conditions are required.

Appendix A - (9/28/10) Email on Acid Rain Applicability

Courtney Graham

From: Robert B Sanch [sanchr@dteenergy.com]
Sent: Tuesday, September 28, 2010 3:01 PM
To: Courtney Graham
Subject: Acid Rain applicability & definitions

Hi Courtney,

I did some digging and thought I would pass along what I found. As we discussed, the Acid Rain program exempts facilities that have a qualifying power purchase commitment as of November 15, 1990. Woodland has had a power purchase commitment with PG&E prior to that date. The nature of the changes to the commitment have not allowed the costs of compliance with the Acid Rain program to be shifted to PG&E.

Definitions at 40 CFR 72.2

Qualifying power purchase commitment means a power purchase commitment in effect as of November 15, 1990 without regard to changes to that commitment so long as:

- (1) The identity of the electric output purchaser; or
- (2) The identity of the steam purchaser and the location of the facility, remain unchanged as of the date the facility commences commercial operation; and
- (3) The terms and conditions of the power purchase commitment are not changed in such a way as to allow the costs of compliance with the Acid Rain Program to be shifted to the purchaser.

Based on the above, Woodland Biomass is still exempt from the Acid Rain program.

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