



JUL 26 2011

Gerardo C. Rios, Chief  
Permits Office (AIR-3)  
U.S. EPA - Region IX  
75 Hawthorne St  
San Francisco, CA 94105

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit  
District Facility # N-4607  
Project # N-1093616**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of Merced Power's application for the Federally Mandated Operating Permit for its electrical power generation facility, 30 W. Sandy Mush Road in Merced County, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 45-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner  
Director of Permit Services

cc: Juscelino Siongco, Permit Services Engineer

Attachments

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

---

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



JUL 26 2011

Mike Tollstrup, Chief  
Project Assessment Branch  
Air Resources Board  
P O Box 2815  
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit  
District Facility # N-4607  
Project # N-1093616**

Dear Mr. Tollstrup:


Enclosed for your review and comment is the District's analysis of Merced Power's application for the Federally Mandated Operating Permit for its electrical power generation facility, 30 W. Sandy Mush Road in Merced County, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,



 David Warner  
Director of Permit Services

cc: Juscelino Siongco, Permit Services Engineer

Attachments

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

---

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



JUL 26 2011

James McHarry  
Merced Power, LLC  
16457 Avenue 24 1/2  
Chowchilla, CA 93610

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit  
District Facility # N-4607  
Project # N-1093616**


Dear Mr. McHarry:

Enclosed for your review and comment is the District's analysis of Merced Power's application for the Federally Mandated Operating Permit for its electrical power generation facility, 30 W. Sandy Mush Road in Merced County, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

 David Warner  
Director of Permit Services

cc: Juscelino Siongco, Permit Services Engineer

Attachments

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

---

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585

Merced Sun Star

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
FEDERALLY MANDATED OPERATING PERMITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed issuance of the Federally Mandated Operating permits to Merced Power, LLC for its electrical power generation facility, 30 W. Sandy Mush Road in Merced County, California.

The District's analysis of the legal and factual basis for this proposed action, project #N-1093616, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. There are no emission changes associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the proposed Federally Mandated Operating initial permits. If requested by the public, the District will hold a public hearing regarding issuance of this initial permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed initial permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CALIFORNIA 93726-0244.

# SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

MERCED POWER LLC

## PROPOSED ENGINEERING EVALUATION

### TABLE OF CONTENTS

Section	Page
I. PROPOSAL .....	1
II. FACILITY LOCATION.....	1
III. EQUIPMENT LISTING .....	1
IV. GENERAL PERMIT TEMPLATE USAGE .....	2
V. SCOPE OF EPA AND PUBLIC REVIEW .....	2
VI. APPLICABLE REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES .....	2
VII. APPLICABLE REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES.....	3
VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE.....	4
IX. COMPLIANCE .....	5
X. PERMIT SHIELD.....	21
XI. PERMIT CONDITIONS .....	23

ATTACHMENT A – DETAILED FACILITY PRINTOUT  
ATTACHMENT B – EXEMPT EQUIPMENT  
ATTACHMENT C – SJVUAPCD PERMITS

# **TITLE V APPLICATION REVIEW**

Project #: N-1093616  
Deemed Complete: August 3, 2010

Engineer: Juscelino Siongco  
Date: July 22, 2011

Facility Number: N-4607  
Facility Name: Merced Power, LLC  
Mailing Address: 717 Atlantic Ave, Suite 1A  
Boston, MA 02111

Contact Name: Steven Carew  
Phone: (416) 643-6616

Responsible Official: David Kandolha  
Title: Manager

## **I. PROPOSAL**

Merced Power, LLC is proposing that an initial Title V permit be issued for its biomass-fired electrical power generation facility at 30 W Sandy Mush Road, Merced, CA. The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with those applicable requirements, and to provide the legal and factual basis for proposed permit conditions.

## **II. FACILITY LOCATION**

Merced Power, LLC is located at 30 W Sandy Mush Road, in Merced County, CA.

## **III. EQUIPMENT LISTING**

A detailed facility printout listing all permitted equipment at the facility is shown in Attachment A.

A summary of the exempt equipment categories which describe the insignificant activities or equipment at the facility not requiring a permit is shown in Attachment B. This equipment is not exempt from facility-wide requirements.

#### **IV. GENERAL PERMIT TEMPLATE USAGE**

The applicant is requesting to use the model general permit template, Facility-wide #SJV-UM-0-3.

The applicant has requested to utilize template #SJV-UM-0-3 for the facility-wide requirements. Based on the information submitted on the Template Qualification Form, the applicant qualifies for the use of this template.

#### **V. SCOPE OF EPA AND PUBLIC REVIEW**

Certain segments of the proposed Operating Permit are based on model general permit templates that have been previously subject to EPA and public review. The terms and conditions from the model general permit templates are included in the proposed permit and are not subject to further EPA and public review.

For permit applications utilizing model general permit templates, public and agency comments on the District's proposed actions are limited to the applicant's eligibility for model general permit template, applicable requirements not covered by the model general permit template, and the applicable procedural requirements for issuance of Title V Operating Permits.

The following permit conditions, including their underlying applicable requirements, originate from model general permit templates and are not subject to further EPA or public review.

Conditions 1–40 of the requirements for permit unit #N-4607-0-1.

#### **VI. APPLICABLE REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATE**

District Rule 1100, Equipment Breakdown (amended December 17, 1992)

District Rule 1160, Emission Statements (adopted November 18, 1992)

District Rule 2010, Permits Required (amended December 17, 1992)

District Rule 2020, Exemptions (amended March 21, 2002)

District Rule 2031, Transfer of Permits (adopted December 17, 1992)

District Rule 2040, Applications (amended December 17, 1992)

District Rule 2070, Standards for Granting Applications (adopted December 17, 1992)

District Rule 2080, Conditional Approval (amended December 17, 1992)

District Rule 4101, Visible Emissions (amended February 17, 2005)  
District Rules 8021, 8031, 8041, 8051, 8061 Fugitive Dust (PM10) Emissions  
(amended August 19, 2004)  
District Rules 8071, Fugitive Dust (PM10) Emissions (amended September 16,  
2004)  
40 CFR Part 61, Subpart M, National Emission Standard for Asbestos  
40 CFR Part 82, Subpart B and F, Stratospheric Ozone

## **VII. APPLICABLE REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES**

District Rule 1080, Stack Monitoring (amended December 17, 1992)  
District Rule 1081, Source Sampling (amended December 16, 1993)  
District Rule 2201, New and Modified Stationary Source Review Rule (amended  
April 21, 2011)  
District Rule 2520, Federally Mandate Operating Permits (amended June 21,  
2001)  
District Rule 4201, Particulate Matter Concentration (amended December 17,  
1992)  
District Rule 4202, Particulate Matter-Emission Rate (amended December 17,  
1992)  
District Rule 4352, Solid Fuel Fired Boilers, Steam Generators and Process  
Heaters (amended May 18, 2006)  
District Rule 4601, Architectural Coatings (amended December 17, 2009)  
District Rule 4801, Sulfur Compounds (amended December 17, 1992) (Non-SIP  
replacement for Merced County Rule 407)  
40 CFR 60 Subpart Db, Standards of Performance for Industrial–Commercial–  
Institutional Steam Generating Units  
40 CFR 60 Subpart III, Standards of Performance for Stationary Compression  
Ignition Internal Combustion Engines  
40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air  
Pollutants for Stationary Reciprocating Internal Combustion Engines  
40 CFR Part 64, Compliance Assurance Monitoring (CAM)  
40 CFR Part 72, Acid Rain Program  
Merced County Rule 407, Sulfur Compounds



## VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as Federally Enforceable through Title V Permit.

This facility is subject to the following rules that are not currently federally enforceable:

### **District Rule 4102, Nuisance (amended December 17, 1992)**

- a. Facility-Wide Requirements (N-4607-0-1)
  - Condition 41 of the requirements from permit unit N-4607-0-1 is based on this rule and is not Federally Enforceable through Title V.
- b. 185 MMBtu/hr Biomass-Fired Bubbling Fluidized Bed Combustor (N-4607-8-1)
  - Conditions 21 and 22 of the requirements from this permit unit are based on this rule and are not Federally Enforceable through Title V.
- c. 115 Bhp Diesel-Fired Emergency IC Engine Powering a Fire Pump (N-4607-11-1)
  - Condition 6 of the requirements from this permit unit is based on this rule and is not Federally Enforceable through Title V.

### **District Rule 7012, Hexavalent Chromium–Cooling Towers (amended December 17, 1992)**

- a. 12,500 GPM Mechanical/Induced Draft Cooling Tower (N-4607-9-1)
  - Condition 4 of the requirements from this permit unit is based on this rule and is not Federally Enforceable through Title V.

## IX. COMPLIANCE

### A. Requirements Not Addressed by Model General Permit Templates

#### 1. New and Modified Stationary Source Review Rule (District NSR Rule)

The permit units are subject to the District NSR Rule upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting Permit to Operate (PTO) were addressed to define how NSR permit terms should be incorporated into the Title V permit.

##### a. Biomass Receiving, Storage, Transfer, Sizing Operation (N-4607-6-3)

- Condition 1 from the current PTO has been moved to the Facility-Wide permit as condition 22.
- Condition 2 from the current PTO has been moved to the Facility-Wide permit as condition 41.
- Conditions 3 through 16 from the current PTO have been included as conditions 1 through 14 of the requirements for the proposed permit.
- Condition 17 from the current PTO is obsolete and not included in the requirements for the proposed permit. The condition had been complied with this proposal.

##### b. Limestone Receiving, Storage, and Transfer Operation (N-4607-7-1)

- Condition 1 from the current PTO has been moved to the Facility-Wide permit as condition 22.
- Condition 2 from the current PTO has been moved to the Facility-Wide permit as condition 41.
- Conditions 3 through 11 from the current PTO have been included as conditions 1 through 9 of the requirements for the proposed permit.
- Condition 12 from the current PTO is obsolete and not included in the requirements for the proposed permit. The condition had been complied with this proposal.

##### c. 185 MMBtu/hr Biomass-Fired Bubbling Fluidized Bed Combustor (N-4607-8-1)

- Condition 1 from the current PTO has been moved to the Facility-Wide permit as condition 22.

- Condition 2 from the current PTO has been moved to the Facility-Wide permit as condition 41.
  - Conditions 3 through 46 from the current PTO have been included as conditions 1 through 44 of the requirements for the proposed permit.
  - Condition 47 from the current PTO is obsolete and not included in the requirements for the proposed permit. The condition had been complied with this proposal.
- d. 12,500 GPM Mechanical/Induced Draft Cooling Tower (N-4607-9-1)
- Condition 1 from the current PTO has been included as condition 1 of the requirements for the proposed permit.
  - Condition 2 from the current PTO has been moved to the Facility-Wide permit as condition 22.
  - Condition 3 from the current PTO has been moved to the Facility-Wide permit as condition 41.
  - Conditions 4 through 10 from the current PTO have been included as conditions 2 through 8 of the requirements for the proposed permit.
  - Condition 11 from the current PTO is obsolete and not included in the requirements for the proposed permit. The condition had been complied with this proposal.
- e. Fly Ash Handling Storage and Load Out Operation (N-4607-10-2)
- Condition 1 from the current PTO has been moved to the Facility-Wide permit as condition 41.
  - Condition 2 from the current PTO has been moved to the Facility-Wide permit as condition 22.
  - Conditions 3 through 10 from the current PTO have been included as conditions 1 through 8 of the requirements for the proposed permit.
  - Condition 11 from the current PTO is obsolete and not included in the requirements for the proposed permit. The condition had been complied with this proposal.
- f. 115 Bhp Clark Diesel-Fired Emergency IC Engine (N-4607-11-1)
- Condition 1 from the current PTO has been moved to the Facility-Wide permit as condition 22.
  - Condition 2 from the current PTO has been included as condition 1 of the requirements for the proposed permit.
  - Condition 3 from the current PTO has been moved to the Facility-Wide permit as condition 41.

- Conditions 3 through 13 from the current PTO have been included as conditions 1 through 11 of the requirements for the proposed permit.

## **2. District Rule 1080, Stack Monitoring**

This rule grants the APCO the authority to request the installation, use maintenance, and inspection of continuous monitoring equipment. The general, source and pollutant specific requirements for continuous monitoring equipment are defined. This rule also specifies the performance standards for the equipment and administrative recordkeeping, reporting, and violation and equipment breakdown notification requirements.

- a. 185 MMBtu/hr Biomass-Fired Bubbling Fluidized Bed Combustor (N-4607-8-1)
  - Conditions 10 through 16, 36, and 37 of the requirements for this permit unit assure compliance with this rule.

## **3. District Rule 1081, Source Sampling**

This rule ensures that any source operation which emits or may emit air contaminants provides adequate and safe facilities for use in sampling to determine compliance. The rule also specifies methods and procedures for source testing, sample collection, and compliance determination.

- a. 185 MMBtu/hr Biomass-Fired Bubbling Fluidized Bed Combustor (N-4607-8-1)
  - Conditions 28, 29, 31, and 32 of the requirements for this permit unit assure compliance with this rule.
- b. 12,500 GPM Mechanical/Induced Draft Cooling Tower (N-4607-9-1)
  - Condition 8 of the requirements for this permit unit assures compliance with this rule.

## **4. District Rule 2520, Federally Mandated Operating Permits**

Section 9.4.2 requires that all required monitoring data and support information be retained for a period of at least 5 years from the date of monitoring sample, measurement, or report.

- a. Biomass Receiving, Storage, Transfer, Sizing Operation (N-4607-6-1)

- Condition 14 of the requirements for this permit unit assures compliance with this rule.
- b. Fly Ash Handling Storage and Load Out Operation (N-4607-10-2)
- Condition 8 of the requirements for this permit unit assures compliance with this rule.

#### Mandatory Greenhouse Gas Reporting

There are no federally applicable Greenhouse Gas (GHG) requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40CFR Part 98) is not included in the definition of an applicable requirement within Title V (per 40CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

### **5. District Rule 4101, Visible Emissions**

Section 5.0 prohibits the discharge of any air contaminant for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart; or is of such opacity as to obscure an observer's view to a degree equal to or greater than the smoke described in Section 5.1 of Rule 4101.

- a. Limestone Receiving, Storage, and Transfer Operation (N-4607-7-1)
- Conditions 5 and 6 of the requirements for this permit unit assure compliance with this rule.

### **6. District Rule 4201, Particulate Matter Concentration**

The purpose of this rule is to protect the ambient air quality by establishing a particulate matter emission standard. Section 3.1 requires emissions to be at or below 0.1 grains of particulate matter per dry standard cubic foot of exhaust gas.

- a. Biomass Receiving, Storage, Transfer, Sizing Operation (N-4607-6-1)
- The emissions units do not have dedicated stack(s) from which PM emissions are released. The rule's test methods cannot be used to measure the grain loading factor (gr/dscf) and, therefore, the requirements of this rule cannot be enforced.

b. Limestone Receiving, Storage, and Transfer Operation (N-4607-7-1)

The PM emission factor for the unloading of limestone is 0.00034 lb·PM/ton. In addition, the density of limestone is approximately 58 lb/ft<sup>3</sup>. By conservatively assuming that no excess air is introduced into the silo during filling, then all of the emissions from the silo would be concentrated into the air that is displaced by the limestone during the filling process.

$$\frac{0.00034 \text{ lb} \cdot \text{PM}}{\text{ton} \cdot \text{limestone}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} \times \frac{58 \text{ lb} \cdot \text{limestone}}{\text{ft}^3} \times \frac{7,000 \text{ grain}}{\text{lb}} = 0.06 \frac{\text{grain}}{\text{ft}^3}$$

Since this does not exceed the rule threshold of 0.1 grain/scf, this unit is expected to comply with the rule.

- Condition 1 of the requirements for this permit unit assures compliance with this rule.

c. 185 MMBtu/hr Biomass-Fired Bubbling Fluidized Bed Combustor (N-4607-8-1)

The combustor is expected to emit up to 0.04 lb·PM<sub>10</sub>/MMBtu. The F-factor for biomass combustion is 9,240 scf/MMBtu. Conservatively assuming that up to 50% of the total PM emissions are PM<sub>10</sub>, then the total PM emission factor for the combustor could be as high as 0.08 lb·PM/MMBtu. Therefore, the grain loading is calculated as follows.

$$\frac{0.08 \text{ lb} \cdot \text{PM}}{\text{MMBtu}} \times \frac{1 \text{ MMBtu}}{9,240 \text{ ft}^3} \times \frac{7,000 \text{ grain}}{\text{lb}} = 0.06 \frac{\text{grain} \cdot \text{PM}}{\text{ft}^3}$$

Since this does not exceed the rule threshold of 0.1 grain/scf, this unit is expected to comply with Rule 4201.

- Condition 1 of the requirements for this permit unit assures compliance with this rule.

d. 12,500 GPM Mechanical/Induced Draft Cooling Tower (N-4607-9-1)

The cooling tower is equipped with a mist eliminator. Since the applicant has proposed to use no chemicals containing chromium in the tower, it is not expected to produce any significant emissions. Although the unit could produce up to 0.31 lb of PM<sub>10</sub> per hour, it is not technically reasonable to compute a grain loading figure for this. Based

on past experience with cooling towers, this unit is expected to comply with Rule 4201.

- Condition 2 of the requirements for this permit unit assures compliance with this rule.

e. Fly Ash Handling Storage and Load Out Operation (N-4607-10-2)

The emissions units do not have dedicated stack(s) from which PM emissions are released. The rule's test methods cannot be used to measure the grain loading factor (gr/dscf) and, therefore, the requirements of this rule cannot be enforced.

**7. District Rule 4202, Particulate Matter-Emission Rate**

Section 4.0 of this rule, a person shall not discharge into the atmosphere PM emissions in excess of the maximum allowable limit ( $E_{max}$ ), in lb/hr, determined by the following specified in this Rule:

$$E_{max} = 3.59 P^{0.62}, \text{ for Process weight (P) less than or equal to 30 tons/hr}$$
$$E_{max} = 17.31 P^{0.16}, \text{ for Process weight (P) greater than 30 tons/hr}$$

a. Biomass Receiving, Storage, Transfer, Sizing Operation (N-4607-6-3)

Fuel Unloading:

The throughput rate of the unloading operation is 52.1 tons per hour (equivalent to 1,250 tons/day).

$$E = 17.31 P^{0.16}$$
$$E = 17.31 (52.1)^{0.16}$$
$$E = 32.58 \text{ lb/hr}$$

The unloading operation's  $PM_{10}$  emission limit is 0.0001 lb/ton of fuel received.

$$PM_{10} \text{ emissions} = 0.0001 \text{ lb/ton} \times 52.1 \text{ ton/hr} = 0.005 \text{ lb/hr} < 32.58 \text{ lb/hr}$$

Fuel Handling:

The throughput rate of the fuel handling is 10 tons per hour (240 tons/day)

$$E = 3.59 P^{0.62}$$
$$E = 3.59 (10)^{0.62}$$
$$E = 14.97 \text{ lb/hr}$$

The fuel handling's PM<sub>10</sub> emission limit is 0.0011 lb/ton of fuel handled.

$$\text{PM}_{10} \text{ emissions} = 0.0011 \text{ lb/ton} \times 10 \text{ ton/hr} = 0.01 \text{ lb/hr} < 14.97 \text{ lb/hr}$$

Fuel Processing:

The throughput rate of the fuel transfer is 20 tons per hour (480 tons/day)

$$\begin{aligned} E &= 3.59 P^{0.62} \\ E &= 3.59 (20)^{0.62} \\ E &= 23 \text{ lb/hr} \end{aligned}$$

The largest fuel processing PM<sub>10</sub> emission limit is 0.0022 lb/ton of fuel processed.

$$\text{PM}_{10} \text{ emissions} = 0.0022 \text{ lb/ton} \times 20 \text{ ton/hr} = 0.04 \text{ lb/hr} < 23 \text{ lb/hr}$$

- Condition 15 of the requirements for this permit unit assures compliance with this rule.

b. Limestone Receiving, Storage, and Transfer Operation (N-4607-7-1)

The throughput rate of the silo loading is 1.83 tons per hour (44 tons/day)

$$\begin{aligned} E &= 3.59 P^{0.62} \\ E &= 3.59 (1.83)^{0.62} \\ E &= 5.2 \text{ lb/hr} \end{aligned}$$

The silo loading PM<sub>10</sub> emission limit is 0.00034 lb/ton of limestone loaded.

$$\text{PM}_{10} \text{ emissions} = 0.00034 \text{ lb/ton} \times 1.83 \text{ ton/hr} = 0.0006 \text{ lb/hr} < 5.2 \text{ lb/hr}$$

- Condition 10 of the requirements for this permit unit assures compliance with this rule.

c. Fly Ash Handling and Loadout Operation (N-4607-10-2)

The throughput rate of the fly ash loadout is 4 tons per hour (96 tons/day)

$$E = 3.59 P^{0.62}$$



$$E = 3.59 (4)^{0.62}$$

$$E = 8.5 \text{ lb/hr}$$

The fly ash loadout PM<sub>10</sub> emission limit is 0.000046 lb/ton of fly ash.

$$\text{PM}_{10} \text{ emissions} = 0.000046 \text{ lb/ton} \times 4 \text{ ton/hr} = 0.0002 \text{ lb/hr} < 8.5 \text{ lb/hr}$$

- Condition 9 of the requirements for this permit unit assures compliance with this rule.

### 8. District Rule 4352, Solid Fuel Fired Boilers, Steam Generators and Process Heaters

Pursuant to Section 5.1, NO<sub>x</sub> emissions shall not exceed 0.2 lb/MMBtu, based on a 24 hour averaging period and CO emissions shall not exceed 400 ppmv @ 3% O<sub>2</sub>.

The permit unit is limited to 0.08 lb-NO<sub>x</sub>/MMBtu and 0.057 lb-CO/MMBtu—calculated in ppmv as follows:

$$\frac{0.057 \frac{\text{lb} \cdot \text{CO}}{\text{MMBtu}} \cdot 379.5 \frac{\text{dscf}}{\text{lb} \cdot \text{mol}} \cdot 10^6 \cdot \text{ppmv}}{9,240 \frac{\text{dscf}}{\text{MMBtu}} \cdot 28 \frac{\text{lb} \cdot \text{CO}}{\text{lb} \cdot \text{mol}} \cdot \frac{20.9}{17.9}} = 72 \text{ ppmv @ 3\% O}_2$$

Since the NO<sub>x</sub> and CO permitted levels are lower than the Rule limits, this unit is expected to comply with this section of Rule 4352.

Section 5.5 of the rule requires that any unit with ammonia injection for NO<sub>x</sub> control shall operate a continuous emissions monitoring system (CEM) to monitor and record NO<sub>x</sub> concentrations, NO<sub>x</sub> emission rate, and either CO or O<sub>2</sub> concentrations.

The permit unit is equipped with ammonia injection to control NO<sub>x</sub> and equipped with CEMS. Therefore, this unit is expected to comply with this section of Rule 4352.

Section 6.2 of the rule requires facilities to maintain a monthly operating log that includes type and quantity of fuel used, and the hhv of such fuel.

Section 6.3 of the rule requires each unit be source tested annually, with the unit operating at normal conditions.

- a. 185 MMBtu/hr Biomass-Fired Bubbling Fluidized Bed Combustor (N-4607-8-1)
- Conditions 10, 24, 25, 29, 30, 32, 42, and 44 of the requirements for this permit unit assure compliance with this rule.

**9. District Rule 4801, Sulfur Compounds**

The purpose of this rule is to limit the emissions of sulfur compounds. A maximum concentration and test method are specified.

Section 3.1 and 3.2 set forth the emissions limits and the test methods used to determine such emissions. District Rule 4801 has been submitted to the EPA to replace Merced County Rule 407. District Rule 4801 is at least as stringent as the county SIP rule addressing breakdowns, as demonstrated in Table 3.

**Table 3 Comparison of District Rule 4801 to Merced County Rule 407**

REQUIREMENTS	District Rule 4801	Merced County Rule 407
A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO <sub>2</sub> ), on a dry basis averaged over 15 consecutive minutes.	X	X
EPA Method 8 and ARB Method 1-100 (Continuous Emission Stack Sampling) shall be used to determine such emissions.	X	

- a. 185 MMBtu/hr Biomass-Fired Bubbling Fluidized Bed Combustor (N-4607-8-1)

The SO<sub>x</sub> emission factor is 0.015 lb·SO<sub>x</sub>/MMBtu.

$$\frac{0.020 \frac{\text{lb} \cdot \text{SO}_2}{\text{MMBtu}} \cdot 379.5 \frac{\text{dscf}}{\text{lb} \cdot \text{mol}} \cdot 10^6 \cdot \text{ppmv}}{9,240 \frac{\text{dscf}}{\text{MMBtu}} \cdot 64 \frac{\text{lb} \cdot \text{SO}_2}{\text{lb} \cdot \text{mol}} \cdot \frac{20.9}{17.9}} = 10.99 \text{ ppmv @ 3\% O}_2$$

Since 10.99 ppmv is less than 2000 ppmv, this unit is expected to comply with the rule.

- Conditions 25 and 27 of the requirements for this permit unit assure compliance with this rule.

b. 115 Bhp Clark Diesel-Fired Emergency IC Engine (N-4607-11-1)

The maximum fuel sulfur content that can be combusted in diesel-fired IC engines and comply with this 2000 ppmv emission limit is calculated as follows:

Maximum fuel sulfur content of diesel to assure compliance with Rule 4801.

$$\frac{\left(137,000 \frac{\text{Btu}}{\text{gal}}\right) \times \left(\frac{9,190 \text{ dscf}}{10^6 \text{ Btu}}\right) \times \left(32.06 \frac{\text{g-S}}{\text{mol}}\right) \times \left(0.002 \frac{\text{mol-S}}{\text{mol-exhaust}}\right) \left(28.317 \frac{\text{l}}{\text{cf}}\right)}{\left(23.6 \frac{\text{L}}{\text{mol}}\right) \times \left(7.05 \frac{\text{lb}}{\text{gal}}\right) \times \left(453.59 \frac{\text{g}}{\text{lb}}\right)} = 0.030 \frac{\text{lb-S}}{\text{lb-Diesel}}$$

Where,

137,000 Btu/gal= Heat content of diesel (AP-42 9/85, Appendix A-5)  
 9,190 dscf/10<sup>6</sup> Btu = Diesel F Factor (40 CFR 60, Appendix A-7, Table 19-1)

32.06 g-S/mol= Molecular weight of sulfur

0.002 mol-S/mol-exhaust = District Rule 4801 limit for sulfur emissions

28.317 l/cf = conversion factor for liters to cubic feet

23.6 = Volume one mole of gas occupies at standard conditions (1 atm, 15.5 °C)

7.05 lb/gal= density of diesel (AP-42 9/85, Appendix A-6)

453.59 g/lb = conversion factor for grams to pounds

Diesel fuel with a sulfur content of less than 3.0% by weight satisfies Rule 4801. This IC engine is fired on Air Resources Board quality diesel fuel with maximum sulfur content 0.0015% by weight. Therefore, the use of this very low sulfur diesel assures compliance with this Rule.

- Condition 2 of the requirements for this permit unit assures compliance with this rule.

**10. 40 CFR 60 Subpart Db, Standards of Performance for Industrial-Commercial- Institutional Steam Generating Units**

This subpart applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 MW (100 million Btu/hour). Since this unit was constructed after June 19, 1984 and is rated at 185 MMBtu/hr, the provisions of this subpart apply.

§60.43b - Standard for particulate matter.

(c) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain particulate matter in excess of the following emission limits:

- (1) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood.
- (2) 86 ng/J (0.20 lb/million Btu) heat input if
  - (i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood,
  - (ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for wood, and
  - (iii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less.

This permit unit combusts wood, or wood with other fuels, except coal, therefore this section does apply. The facility has a PM<sub>10</sub> limit of 0.04 lb/MMBtu, which is in compliance with the limits of this section. Therefore, compliance is expected.

(d) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits:

- (1) 43 ng/J (0.10 lb/million Btu) heat input,
  - (i) If the affected facility combusts only municipal-type solid waste, or
  - (ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.
- (2) 86 ng/J (0.20 lb/million Btu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and
  - (i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less,
  - (ii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less,

- (iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) for municipal-type solid waste, or municipal-type solid waste and other fuels, and
- (iv) Construction of the affected facility commenced after June 19, 1984, but before November 25, 1986.

This permit unit combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels therefore this section applies. The facility has a PM<sub>10</sub> limit of 0.04 lb/MMBtu, which is in compliance with the limits of this section. Therefore, compliance is expected.

(f) On and after the date on which the initial performance test is completed or is required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

A condition has been included in the permit to assure compliance with this requirement. In addition, the permit unit will be equipped with a Continuous Opacity Monitoring system, which will ensure continued compliance.

§60.46b - Compliance and performance test methods and procedures for particulate matter and nitrogen oxides.

(a) The PM emission standards and opacity limits under §60.43b apply at all times except during periods of startup, shutdown, or malfunction.

A condition has been included in the permit to assure compliance with this requirement.

§60.48b - Emission monitoring for particulate matter.

(a) The owner or operator of an affected facility subject to the opacity standard under §60.43b 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

As discussed above, the permit unit is required to have a COM system and record the output of the system. Therefore, compliance is expected.

A condition has been included in the permit to assure compliance with this requirement.

§60.49b - Reporting and recordkeeping requirements.

(d)(1) The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for each fuel combusted 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.

(f) The owner or operator shall maintain records of opacity.

(h) The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period.

(v) The owner or operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

(w) The reporting period for the reports required 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.

Conditions have been included in the permit to assure compliance with these requirements.

- a. 185 MMBtu/hr Biomass-Fired Bubbling Fluidized Bed Combustor (N-4607-8-1)
  - Conditions 45 through 54 of the requirements for this permit unit assure compliance with this rule.

**11. 40 CFR 60 Subpart III, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

This subpart is applicable to owners and operators of new stationary compression ignited internal combustion engines. A stationary compression ignited internal combustion engine is new if it commenced

construction after July 11, 2005, and it was manufactured as a National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

The proposed engine is new based on this definition and is subject to Subpart IIII requirements.

Pursuant to Section 60.4205(c), fire pumps with a displacement less than 30 liters/cylinder must comply with the emission standards listed in Table 1 of Subpart IIII. Table 1 of Subpart IIII lists the following emission limits for a 2007 model year engine rated between 100 and 175 HP.

Engine HP Rating	Model Year	NMHC + NO <sub>x</sub> (g/bhp-hr)	CO (g/bhp-hr)	PM (g/ghp-hr)
100 ≤ HP < 175	2009 and earlier	7.8	3.7	0.6

Section 60.4207 requires the use of fuel that meets the following requirements:

1. By October 1, 2007, the fuel must have a sulfur content less than or equal to 500 ppm and a minimum centane index of 40 or a maximum aromatic content of 35 percent by volume.
2. By October 1, 2010, the fuel must have a sulfur content less than or equal to 15 ppm and a minimum centane index of 40 or a maximum aromatic content of 35 percent by volume.

CARB certified diesel fuel has a sulfur content of 15 ppm or less and a maximum aromatic content of 20 percent by volume. Therefore, use of CARB certified diesel fuel satisfies this requirement. The following condition will be included on the permit:

Section 60.4209(a) requires the installation of a non-resettable elapsed time hour meter. The following condition will be included on the permit:

Section 60.4211(e) limits operation of the engine, for maintenance and testing purposes, to 100 hours/year.

Section 60.4211(a) requires the owner/operator to operate and maintain the engine and any installed control devices according to manufacturer's instructions.

a. 115 Bhp Clark Diesel-Fired Emergency IC Engine (N-4607-11-1)

- Conditions 2, 3, 4, 5, and 8 of the requirements for this permit unit assure compliance with this rule.

**12. 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

Subpart ZZZZ establishes national emission limitations and operating limits for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions.

§63.6590(a) defines an affected source as any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions. §63.6590(c) requires that an affected source that is an emergency stationary RICE with a site rating of less than or equal to 500 bhp must meet the requirements of this part by meeting the requirements of 40 CFR 60 subpart III for compression ignition engines.

The facility states that it is an area source of HAP emissions operating a new (commenced construction in 2008) 115 bhp emergency stationary compression ignition engine and subject to this subpart. As stated above, the stationary RICE complies with 40 CFR 60 subpart III and, therefore, complies with this subpart.

**13. 40 CFR Part 64, Compliance Assurance Monitoring (CAM)**

40 CFR Part 64 requires Compliance Assurance Monitoring (CAM) for units that meet the following three criteria:

- 1) the unit must have an emission limit for the pollutant;
- 2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
- 3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

a. Limestone Receiving, Storage, and Transfer Operation (N-4607-7-1)

The emissions unit has emissions limits for PM<sub>10</sub>. The unit may be subject to CAM for PM<sub>10</sub> since it has an add-on control in the form of a bin vent filter. Assuming that the bin vent filter has a control efficiency of 90%, the pre-control PM<sub>10</sub> potential to emit is less than the major source threshold of 140,000 lb-PM<sub>10</sub>/year as shown below. Therefore, this emissions unit is not subject to CAM.

$$\begin{aligned}\text{Uncontrolled PM}_{10} &= (0.00034 \text{ lb-PM}_{10}/\text{ton-limestone} \times 1,600 \text{ ton-} \\ &\quad \text{limestone/yr}) / (1-0.90) \\ &= \underline{5 \text{ lb-PM}_{10}/\text{yr}}\end{aligned}$$



- b. 185 MMBtu/hr Biomass-Fired Bubbling Fluidized Bed Combustor (N-4607-8-1)

This emissions unit is subject to CAM for PM<sub>10</sub> since the unit has emissions limit for this pollutant and add-on controls in the form of a baghouse.

Based on 40 CFR 64.2(b)(1)(vi), this unit is not subject to CAM for its NO<sub>x</sub> emissions limit since the permit already specifies a continuous compliance determination method in the form of a continuous emissions monitor (CEM) for NO<sub>x</sub>.

This permit unit has emissions limit for SO<sub>x</sub>, CO, and VOC but does not have add-on controls for these pollutants. Therefore, this permit unit is not subject to CAM for SO<sub>x</sub>, CO, and VOC.

40 CFR part 64.3 requires that the operator monitor one or more parameters that indicate the performance of the control device. The emissions unit is equipped with a continuous opacity monitor (COM) for PM<sub>10</sub>. The COM is required to be operated in accordance with the requirements of 40 CFR 60, Appendix B.

- Conditions 36, 37, 49, 51, 52, and 53 of the requirements for this permit unit assure compliance with this rule.

- c. 12,500 GPM Mechanical/Induced Draft Cooling Tower (N-4607-9-1)

This emissions unit is not subject to CAM because it does not have add-on controls.

- d. Fly Ash Handling Storage and Load Out Operation (N-4607-10-2)

The emissions unit has emissions limits for PM<sub>10</sub>. The unit may be subject to CAM for PM<sub>10</sub> since it has an add-on control in the form of a bin vent filter. Assuming that the bin vent filter has a control efficiency of 90%, the pre-control PM<sub>10</sub> potential to emit is less than the major source threshold of 140,000 lb-PM<sub>10</sub>/year as shown below. Therefore, this emissions unit is not subject to CAM.

$$\begin{aligned}\text{Uncontrolled PM}_{10} &= (0.00034 \text{ lb-PM}_{10}/\text{ton-fly ash} \times 11,000 \text{ ton-fly} \\ &\quad \text{ash/yr}) / (1-0.90) \\ &= \underline{38 \text{ lb-PM}_{10}/\text{yr}}\end{aligned}$$

- e. 115 Bhp Clark Diesel-Fired Emergency IC Engine (N-4607-11-1)

This emissions unit is not subject to CAM because it does not have add-on controls.

#### **14. 40 CFR Part 72, Acid Rain Program**

The Acid Rain Program is designed to achieve environmental benefits through the reductions in SO<sub>2</sub> and NO<sub>x</sub> emissions; facilitate active trading of allowances and use of other compliance options to minimize compliance costs, maximize economic efficiency, and permit strong economic growth; and promote pollution prevention and energy efficient strategies and technologies.

§72.6(b) states that any unit that commenced commercial operation before November 15, 1990 and that did not, as of November 15, 1990, and does not currently, serve a generator with a nameplate capacity of greater than 25 MWe is not an affected unit subject to the requirements of the Acid Rain Program.

This facility initially began commercial operation in October 1988 with a generating capacity of 12.5 MWe. In 1995, the plant was shutdown but maintained while being offered for sale. The facility was purchased by Merced Power, LLC in 2001 and applications were submitted to the District to re-start the facility. The facility was re-started on July 5, 2008.

Even though the facility was idle from 1988 to 2008, Section 72.6(b) still applies and, therefore, this unit is not an affected unit subject to the requirements of the Acid Rain Program.

#### **15. Merced County Rule 407, Sulfur Compounds**

See District Rule 4801 in this section.

### **X. PERMIT SHIELD**

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Title V permit is considered compliance with all applicable requirements upon which those conditions are based.

District Rule 1080, 4.0, 6.5, 7.2, 7.3, and 8.0

Compliance with these requirements was addressed in Section IV of this document, and is assured by conditions 10, 11, 14, 36, and 37 of the requirements of N-4607-8-1. Therefore, a permit shield is being granted for these requirements in condition 55 of the requirements of N-4607-8-1.

District Rule 1081, 3.1, 5.0, and 7.0

Compliance with these requirements was addressed in Section IV of this document, and is assured by conditions 28, 31, and 32 of the requirements of N-4607-8-1. Therefore, a permit shield is being granted for these requirements in condition 56 of the requirements of N-4607-8-1.

District Rule 4201

Compliance with this requirement was addressed in Section IV of this document, and is assured by the following conditions.

Condition #	Permits
1	N-4607-7-1
2	N-4607-9-1
1	N-4607-11-1

Therefore, a permit shield is being granted for this requirement in the following conditions.

Condition	Permits
11	N-4607-7-1
9	N-4607-9-1
12	N-4607-11-1

District Rule 4202

Compliance with this requirement was addressed in Section IV of this document, and is assured by the following conditions.

Condition #	Permits
15	N-4607-6-3
10	N-4607-7-1
9	N-4607-10-2

Therefore, a permit shield is being granted for this requirement in the following conditions.

Condition	Permits
16	N-4607-6-3
11	N-4607-7-1
10	N-4607-10-2

District Rule 4352, 5.1, 5.5, 6.2, 6.3, and 6.4

Compliance with these requirements was addressed in Section IV of this document, and is assured by conditions 10, 25, 29, 30, 32, 42, and 44 of the requirements of N-4607-8-1. Therefore, a permit shield is being granted for these requirements in condition 57 of the requirements of N-4607-8-1.

40 CFR 60 Subpart Db sections 60.43b(c), 60.43b(d), 60.43b(f), 60.46b(a), 60.48b(a), 60.49b(d)(1), 60.49b(f), 60.49b(h), 60.49b(v), and 60.49b(w)

Compliance with these requirements was addressed in Section IV of this document, and is assured by conditions 45 through 54 of the requirements of N-4607-8-1. Therefore, a permit shield is being granted for these requirements in condition 58 of the requirements of N-4607-8-1.

District Rule 4801 and Merced County Rule 407

Compliance with this requirement was addressed in Section IV of this document, and is assured by conditions 25 and 24 of N-4607-8-1 and condition 2 of the requirements of N-4607-11-1. Therefore, a permit shield is being granted for this requirement in conditions 59 of N-4607-8-1 and condition 13 of the requirements of N-4607-11-1.

## **XI. PERMIT CONDITIONS**

See draft operating permit beginning on the following page.

# San Joaquin Valley Air Pollution Control District

FACILITY: N-4607-0-1

EXPIRATION DATE: 10/31/2014

## FACILITY-WIDE REQUIREMENTS

1. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: MERCED POWER, LLC  
Location: 30 W SANDY MUSH ROAD, EL NIDO, CA  
N-4607-0-1 Jul 22 2011 9:01AM - SIOGCOJ

9. {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

22. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
23. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
30. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
31. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
32. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
33. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
42. On month, day, year, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

DRAFT



# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-4607-6-3

EXPIRATION DATE: 10/31/2014

## EQUIPMENT DESCRIPTION:

BIOMASS RECEIVING, STORAGE, TRANSFER, SIZING OPERATION WITH DISC SCREEN AND FUEL SIZER SERVED BY A WATER SPRAY DUST SUPPRESSION SYSTEM, FUEL STORAGE BUILDING, FUEL STORAGE AREA, AND CONVEYING EQUIPMENT

## PERMIT UNIT REQUIREMENTS

1. The operator shall use self-unloading trucks, or truck tipper system to unload the fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Operating schedule shall not exceed 345 days per year. [District NSR Rule] Federally Enforceable Through Title V Permit
3. PM10 emissions from the unloading operation shall not exceed 0.0001 pounds per ton of fuel received. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The amount of the fuel received at this site shall not exceed 1,250 tons in any one day. The permittee shall keep records of the date and the amount of material received. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The fuel handling activities conducted by front-end loader(s) or other similar mobile equipment may include one or more of the following items: transfer the fuel from the receiving area to the fuel yard, receiving area to fuel storage building (or E/W drag-chain reclaim conveyors), the fuel yard to the fuel storage building (or E/W drag-chain reclaim conveyors), the fuel yard to N/S drag chain reclaim conveyors, and from receiving to N/S drag chain reclaim conveyors. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The amount of fuel handled shall not exceed 240 tons in any one day for each fuel handling activity conducted using front-end loader(s) or other similar mobile equipment. The permittee shall keep records of the date, detailed activity, and the amount of material handled (tons). [District NSR Rule] Federally Enforceable Through Title V Permit
7. PM10 emissions from each fuel handling activity shall not exceed 0.0011 pounds per ton of fuel handled. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The fuel conveying, screening, and sizing operation may include the following items: fuel transfer from N/S drag chain reclaim conveyors to fuel collection conveyor (enclosed), E/W drag chain reclaim conveyors to fuel collection conveyor (enclosed), fuel collection conveyor to transfer conveyor (enclosed), transfer conveyor to weigh belt conveyor (enclosed), weigh belt conveyor to disc screen conveyor (enclosed), disc screening, oversized material transfer to storage (open), fuel sizing served by a wet suppression system, disc screen conveyor to incline belt conveyor (enclosed), incline belt conveyor to distribution drag-chain conveyor (enclosed), distribution drag-chain conveyor to the metering bins (enclosed) delivering fuel to the combustor. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The amount of the fuel processed through each unit in the fuel conveying, screening, and sizing operation shall not exceed 480 tons in any one day. The records on fuel charged to the fluidized combustor may be used to demonstrate compliance with this condition. [District NSR Rule] Federally Enforceable Through Title V Permit
10. PM10 emissions from the enclosed fuel transfer shall not exceed 0.000046 pounds per ton of fuel processed. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

11. PM10 emissions from the open fuel transfer shall not exceed 0.0011 pounds per ton of fuel processed. [District NSR Rule] Federally Enforceable Through Title V Permit
12. PM10 emissions from the disc screen shall not exceed 0.00074 pounds per ton of fuel processed. [District NSR Rule] Federally Enforceable Through Title V Permit
13. PM10 emissions from the fuel sizer shall not exceed 0.0022 pounds per ton of fuel processed. [District NSR Rule] Federally Enforceable Through Title V Permit
14. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. Particulate matter emissions shall not exceed the hourly rate as calculated using the equation  $E = 3.59 \times P^{0.62}$ ; P is less than or equal to 30 tons per hour or  $E = 17.31 \times P^{0.16}$ ; P is greater than 30 tons per hour. [District Rule 4202] Federally Enforceable Through Title V Permit
16. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4202, Section 4.0 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

DRAFT

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-4607-7-1

EXPIRATION DATE: 10/31/2014

## EQUIPMENT DESCRIPTION:

LIMESTONE RECEIVING, STORAGE, AND TRANSFER OPERATION WITH AN ENCLOSED LIMESTONE STORAGE SILO SERVED BY A BIN VENT FILTER, ENCLOSED LIMESTONE TRUCK UNLOADING SYSTEM, AND ENCLOSED LIMESTONE TRANSFER SYSTEM

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Material removed from the bin vent filter shall be disposed of in a manner preventing entrainment into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The bin vent filter shall be maintained and operated according to manufacturer's specifications. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The bin vent filter cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
5. There shall be no visible emissions from the limestone transfer operation, for a period or periods aggregating more than three minutes in any one hour. [District NSR Rule and 4101] Federally Enforceable Through Title V Permit
6. Visible emissions from the bin vent filter serving the storage silo shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District NSR Rule and 4101] Federally Enforceable Through Title V Permit
7. The maximum throughput of limestone loaded into the limestone storage silo shall not exceed either of the following limits: 44 tons of limestone in any one day and 1,600 tons of limestone in any year. [District NSR Rule] Federally Enforceable Through Title V Permit
8. PM10 emissions from the limestone silo loading operation shall not exceed 0.00034 lb-PM10 per ton of limestone loaded. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Records of daily and annual amounts of limestone processed at the receiving and storage operation (in tons) shall be maintained, retained on-site for a period of at least five years, and made available for District inspection upon request. [District NSR Rule and 1070] Federally Enforceable Through Title V Permit
10. Particulate matter emissions shall not exceed the hourly rate as calculated using the equation  $E = 3.59 \times P^{0.62}$ ; P is less than or equal to 30 tons per hour. [District Rule 4202] Federally Enforceable Through Title V Permit
11. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201, Section 3.0 (Amended December 17, 1992), and Rule 4202, Section 4.0 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-4607-8-1

EXPIRATION DATE: 10/31/2014

## EQUIPMENT DESCRIPTION:

185 MMBTU/HR ENERGY PRODUCTS OF IDAHO BIOMASS-FIRED BUBBLING FLUIDIZED BED COMBUSTOR WITH ONE 15 MMBTU/HR PROPANE-FIRED AUXILIARY BURNER POWERING A 13 MW STEAM TURBINE GENERATOR, SERVED BY A SELECTIVE NON-CATALYTIC REDUCTION SYSTEM, A LIMESTONE INJECTION SYSTEM, AND A GENERAL ELECTRIC BAGHOUSE

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Operating schedule shall not exceed 345 days per year. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The baghouse shall be maintained and operated according to manufacturer's specifications. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Replacement bags numbering at least 10% of the total number of bags in the largest baghouse using each type of bag shall be maintained on the premises. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The applicant shall install and maintain an operational ammonia volume flow-rate indicator for the selective non-catalytic reduction ammonia injection system. [District NSR Rule] Federally Enforceable Through Title V Permit
10. The permittee shall install, maintain, and operate a continuous emissions monitoring system (CEMS) to measure stack gas NO<sub>x</sub>, SO<sub>x</sub>, CO, and O<sub>2</sub> concentrations and shall meet the performance specification requirements in 40 CFR, Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. The CEMS systems shall also be operated, maintained, and calibrated pursuant to the requirements of 40 CFR 60.7(c) and 40 CFR 60.13. [District NSR Rule, 1080, and 4352] Federally Enforceable Through Title V Permit
11. The permittee shall install, maintain, and operate a continuous opacity monitor (COM) and shall meet the performance specification requirements in 40 CFR, Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District NSR Rule, 1080, and 40 CFR 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

12. The permittee shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. [District Rule 1080 and 40 CFR 64] Federally Enforceable Through Title V Permit
13. Upon notice by the District that the facility's CEMS system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080, and 40 CFR 64] Federally Enforceable Through Title V Permit
14. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
15. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and compliance source testing are both performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
16. Permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
17. The plant shall only be fueled by biomass materials listed in the following conditions. [District NSR Rule and 4102] Federally Enforceable Through Title V Permit
18. Allowed fuels: Almond Prunings, Apple Prunings, Apricot Prunings, Cherry Prunings, Citrus Prunings, Fig Prunings, Generic Orchard Prunings, Grape Prunings, Nectarine Prunings, Olive Prunings, Peach Prunings, Pecan Prunings, Pistachio Prunings, Plum Prunings, Walnut Prunings, (continued); [District NSR Rule and 4102] Federally Enforceable Through Title V Permit
19. Allowed fuels: Cedar Bark, Forest Slash/Cull, Hog Fuel (Mill Residue), Sawdust, Construction Wood Waste, Landfill Derived Wood, Landscape Tree Trimmings, Pallet/Bins Wood, Urban Development Clearing Trees, (continued); [District NSR Rule and 4102] Federally Enforceable Through Title V Permit
20. Allowed fuels: Grape Pomace, Olive Pomace, Raisin Pomace, Tomato Pomace, Cherry Pits, Nectarine Pits, Olive Pits, Peach Pits, Prune Pits, Almond Shells, Peanut Shells, Pecan Shells, Pistachio Shells, Walnut Shells, Cotton Stalks, Coffee Grounds, Cotton Gin Trash, Turkey (Wood) Shavings, Ditchbank or Canal Weeds, Tumbleweeds, Alfalfa Straw, Barley Straw, Bean Straw/Stalks, Corn Stalks, Milo Sorghum, Rice Straw, Wheat Straw, Char, or other fuels as approved by the District. [District NSR Rule and 4102] Federally Enforceable Through Title V Permit
21. Urban wood waste (construction and landfill derived wood wastes) is approved as fuel provided the mixed urban wood waste fuel contains less than 1% by weight, of plastic, rubber, metals, roofing felt paper, and other non-wood contaminants (other than dirt or ash). No asbestos-containing materials are approved as fuel. [District Rule 4102]
22. If urban wood wastes have been burned during the 365 day period prior to October 31 of any year, fuel testing shall be conducted by December 31 of that year, as follows: equivalent of one truckload of mixed urban wood waste fuel prepared for combustion in the boiler shall be weighed, dumped, and all contaminants shall be sorted from the fuel, identified (plastic, rubber, metals, roofing felt paper, or other non-wood contaminants) and weighed. The report for this test shall be forwarded to the District by January 31 (one month after fuel testing deadline). [District Rule 4102]
23. The auxiliary burner shall be used during start-up to reach the solid fuel ignition temperature throughout the combustor before feeding any solid fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
24. "Startup" is the period of time during which the boiler is heated to operating temperature at steady state load from a lower temperature, not to exceed 96 hours. If curing of the refractory is required after furnace repair or modification, startup time may be extended to no longer than 192 hours. "Shutdown" is the period of time during which the boiler is allowed to cool from its operating temperature at steady state load to a lower temperature, not to exceed 12 hours. [District Rule 4352] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

25. Emissions from the fluidized bed combustor unit, except during periods of startup and shutdown, shall not exceed any of the following limits: NO<sub>x</sub> - 14.8 lb/hr or 0.08 lb/MMBtu; SO<sub>x</sub> - 6.48 lb/hr or 0.035 lb/MMBtu; PM<sub>10</sub> - 7.40 lb/hr or 0.04 lb/MMBtu; CO - 10.55 lb/hr or 72 ppmv @ 3% O<sub>2</sub> (equivalent to 0.057 lb/MMBtu); and VOC - 0.93 lb/hr or 0.005 lb/MMBtu. NO<sub>x</sub> (as NO<sub>2</sub>) and CO emission limits are based on 24 hour rolling averages. SO<sub>x</sub> emission limits are based on 1 hour rolling averages. All other emission limits are 15-minute rolling averages. [District NSR Rule, 4352, and 4801] Federally Enforceable Through Title V Permit
26. The ammonia (NH<sub>3</sub>) emissions shall not exceed 85 ppmv @ 3% O<sub>2</sub> (equivalent to 0.041 lb/MMBtu) over a 24 hour rolling average. [District NSR Rule and 4102] Federally Enforceable Through Title V Permit
27. Emissions from the auxiliary burner shall not exceed any of the following limits: NO<sub>x</sub> - 0.202 lb/MMBtu; SO<sub>x</sub> - 0.005 lb/MMBtu; PM<sub>10</sub> - 0.006 lb/MMBtu; CO - 0.038 lb/MMBtu; and VOC - 0.003 lb/MMBtu. [District NSR Rule, and 4801] Federally Enforceable Through Title V Permit
28. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. The sampling ports shall be located in accordance with the ARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
29. Source testing to measure the NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, VOC, and NH<sub>3</sub> emission rates (lb/hr and lb/MMBtu or ppmvd @ 3% O<sub>2</sub>) shall be conducted at least once every twelve months. [District Rules 1081 and 4352] Federally Enforceable Through Title V Permit
30. All emission measurements shall be made with the unit operating at conditions representative of normal operations. No compliance determination shall be established within two hours after a continuous period in which fuel flow to the unit is zero, or is shut off for 30 minutes or longer. [District Rule 4352] Federally Enforceable Through Title V Permit
31. Compliance demonstration (source testing) shall be witnessed or authorized by the District, and samples shall be collected by a certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
32. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100; NO<sub>x</sub> (lb/MMBtu) - EPA Method 19; SO<sub>x</sub> - EPA Method 6 or ARB Method 100; PM<sub>10</sub> - EPA Method 5 (front half and back half) or 201 and 202a; CO (ppmv) - EPA Method 10 or ARB Method 100; CO<sub>2</sub> - EPA Method 3 or ARB Method 100; VOC - EPA Method 18 or 25 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100; ammonia - BAAQMD ST-1B; Stack Gas Flow Rate - EPA Method 2; Moisture Content - EPA Method 4; Fuel Heating Value - ASTM Method D2015-96 or E711-87. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing, and written approval received from the District, prior to the submission of the source test plan. [District Rules 1081, 4001, and 4352] Federally Enforceable Through Title V Permit
33. Permittee shall project and use the proper mix of fuels to ensure that actual emissions from this boiler are offset with creditable biomass on a quarterly basis. [District NSR Rule] Federally Enforceable Through Title V Permit
34. Open-burning emission factors used to determine the quantity of offsets generated by the diversion of biomass from open-burning are listed in the attachment "Open Burn Emission Factors" (District policy SSP-2005). [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

35. If quarterly actual NO<sub>x</sub> emissions from this boiler are greater than 5,000 lbs (e.g. 1/4 offset threshold), the emission reduction credit from creditable biomass fuel shall be calculated for NO<sub>x</sub> using the following formula:  $Pq = x * [\text{sum of } j=1 \text{ to } n \text{ for } (B_j) * (EF_j) * (HBF_j) * (QDF_j)]$  where:  $Pq$  = Pollutant offset credit in lb/qtr = sum of NO<sub>x</sub> emissions from ag waste credit < 15 miles + NO<sub>x</sub> emissions > 15 miles from facility;  $q$  = calendar quarter;  $x$  = 0.5 for biomass originating > 15 miles and 0.769 for < 15 miles;  $j$  = each creditable biomass type;  $B$  = tons of biomass type ( $j$ ) used per quarter;  $EF$  = emission factor for particular biomass (from SSP-2005);  $HBF_j$  = Historical Burn Fraction - fraction of biomass type ( $j$ ) that has been demonstrated to have historically been open field burned (a District approved HBF factor must be used);  $QDF_j$  = Quarterly Distribution Factor - fraction of burning of biomass ( $j$ ) which occurs in calendar quarter ( $q$ ). [District NSR Rule] Federally Enforceable Through Title V Permit
36. Permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals; data and magnitude of excess emissions; nature and cause of excess emission (averaging period used for data reporting shall correspond to the averaging period for each respective emission standard); corrective actions taken and preventive measures adopted; applicable time and date of each period during which a CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; a negative declaration when no excess emissions occurred, and reports on opacity monitors giving the number of three minute periods during which the average opacity exceeded the standard for each hour of operation. The average may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced instantaneous opacity measurements per minute. Any time exempted shall be considered before determining the excess averages of opacity. [District Rule 1080 and 40 CFR 64] Federally Enforceable Through Title V Permit
37. Permittee shall maintain accurate records of continuous emissions monitoring (CEM) results, dates of occurrences and duration of start-up, shutdown, malfunction, performance testing, evaluations, calibrations, checks, adjustments, and maintenance, and daily records of propane fuel usage. [District NSR Rule, and 1080] Federally Enforceable Through Title V Permit
38. Daily records for each load of creditable biomass received shall be maintained which include the geographic origin (for applicability of distance offset ratio), date, weigh ticket number, supplier name, fuel type, tons received, the distance offset ratio for the load of biomass, and the amount of offset credit (in pounds of NO<sub>x</sub>) attributable to each load of biomass. Records shall include certifications that any creditable biomass for which offset credit is claimed has historically been open burned in the San Joaquin Valley air basin. [District NSR Rule] Federally Enforceable Through Title V Permit
39. Any fuel which is not combusted in the boiler within 12 months of delivery to the site shall not have any value for emission credits purposes. [District NSR Rule] Federally Enforceable Through Title V Permit
40. Permittee shall submit to the District a quarterly report accounting for the tonnage of agricultural waste eliminated from open field burning and used as plant fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
41. Quarterly report of agricultural waste eliminated from open field burning (to offset NO<sub>x</sub> emissions) used as fuel at facility shall document the following: historical burn fraction (HBF) and quarterly distribution factor (QDF) for each biomass fuel used to calculate credit; creditable ag waste fuel receipt quantities; if fuel originates > 15 miles from facility, offset credit ratios; emission factors used; and summary of the resultant emissions offsets provided using the calculation above. The report shall be submitted to the District within 30 days of the end of the quarter. [District NSR Rule] Federally Enforceable Through Title V Permit
42. The owner/operator shall maintain an operating log that includes the type and quantity of fuel used and the hhv of each fuel as determined by District Rule 4352, section 6.4 (as amended 5/18/06), or as certified by a third party fuel supplier. [District Rule 4352] Federally Enforceable Through Title V Permit
43. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
44. All records shall be maintained for a period of at least five years and made available for District, ARB, or EPA inspection upon request. [District Rules 1070 and 4352] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

45. No owner or operator of an affected facility that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain particulate matter in excess of the following emission limits: (1) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood. (2) 86 ng/J (0.20 lb/million Btu) heat input if (i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood, (ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for wood, and (iii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less. [40 CFR 60.43b(c)] Federally Enforceable Through Title V Permit
46. No owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits: (1) 43 ng/J (0.10 lb/million Btu) heat input, (i) If the affected facility combusts only municipal-type solid waste, or (ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less. (2) 86 ng/J (0.20 lb/million Btu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and (i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less, (ii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less, (iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) for municipal-type solid waste, or municipal-type solid waste and other fuels, and (iv) Construction of the affected facility commenced after June 19, 1984, but before November 25, 1986. [40 CFR 60.43b(d)] Federally Enforceable Through Title V Permit
47. No owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [40 CFR 60.43b(f)] Federally Enforceable Through Title V Permit
48. The particulate matter emission standards and opacity limits under 40 CFR 60.43b apply at all times except during periods of startup, shutdown, or malfunction. [40 CFR 60.46b(a)] Federally Enforceable Through Title V Permit
49. The owner or operator of an affected facility subject to the opacity standard under 40 CFR 60.43b 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) and 40 CFR 64] Federally Enforceable Through Title V Permit
50. The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for each fuel combusted 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)(1)] Federally Enforceable Through Title V Permit
51. The owner or operator shall maintain records of opacity. [40 CFR 60.49b(f) and 40 CFR 64] Federally Enforceable Through Title V Permit
52. The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. [40 CFR 60.49b(h) and 40 CFR 64] Federally Enforceable Through Title V Permit
53. The owner or operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 60.49b(v) and 40 CFR 64] Federally Enforceable Through Title V Permit
54. The reporting period for the reports required 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)]. Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.



55. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 1080, sections 4.0, 6.5, 7.2, 7.3, and 8.0 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
56. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 1081, sections 3.1, 5.0, and 7.0 (Amended December 16, 1993). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
57. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4352, sections 5.1, 5.5, 6.2, 6.3, and 6.4 (Amended May 18, 2006). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of 40 CFR 60 Subpart Db, sections 60.43b(c), 60.43b(d), 60.43b(f), 60.46b(a), 60.48b(a), 60.49b(d)(1), 60.49b(f), 60.49b(h), 60.49b(v), and 60.49b(w). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rule 4801 and Merced County Rule 407. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
60. The heat input rating of this unit is less than 250 MMBtu/hr. Therefore, the requirements of 40 CFR 60 Subparts D and Da do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
61. This unit commenced commercial operation before November 15, 1990 and did not, as of November 15, 1990, and does not currently, serve a generator with a nameplate capacity of greater than 25 MWe. Therefore, the requirements of 40 CFR Part 72, Subpart A, do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4607-9-1

**EXPIRATION DATE:** 10/31/2014

**EQUIPMENT DESCRIPTION:**

12,500 GALLON PER MINUTE MECHANICAL/INDUCED DRAFT COOLING TOWER WITH 2 CELLS SERVED BY DRIFT ELIMINATORS

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Operating schedule shall not exceed 345 days per year. [District NSR Rule] Federally Enforceable Through Title V Permit
4. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012]
5. Drift eliminator drift rate shall not exceed 0.005%. [District NSR Rule] Federally Enforceable Through Title V Permit
6. PM10 emission rate shall not exceed 7.5 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Compliance with the PM10 daily emission limit shall demonstrated as follows:  $PM10 \text{ lb/day} = (\text{water recirculation rate}) \times (\text{total dissolved solids concentration in the blowdown water}) \times (\text{design drift rate})$ . [District NSR Rule] Federally Enforceable Through Title V Permit
8. Compliance with PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory every calendar quarter. [District Rule 1081] Federally Enforceable Through Title V Permit
9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201, Section 3.0 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4607-10-2

**EXPIRATION DATE:** 10/31/2014

**EQUIPMENT DESCRIPTION:**

FLY ASH HANDLING, AND LOADOUT OPERATION CONSISTING OF ROTARY FEEDERS, ENCLOSED SCREW/CHAIN CONVEYORS, A SURGE BIN, AND A WET CONDITIONING SCREW CONVEYOR

## PERMIT UNIT REQUIREMENTS

1. The enclosed conveyors include: economizer conveyor to boiler ash conveyor, multiclone conveyor #1 to the boiler ash conveyor, multiclone conveyor #2 to the boiler ash conveyor, boiler conveyor to the boiler ash conveyor, super heater conveyor to the boiler ash conveyor, boiler ash conveyor to the collecting conveyor, baghouse conveyor #1 to the collecting conveyor, baghouse conveyor #2 to the collecting conveyor, collecting conveyor to surge bin, surge bin to truck loadout via a wet conditioning screw conveyor. [District NSR Rule] Federally Enforceable Through Title V Permit
2. PM10 emissions from each flyash transfer operation shall not exceed 0.000046 pounds per ton of flyash loadout. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The flyash loadout shall not exceed 96 tons (dry) in any one day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The flyash loadout shall not exceed 11,000 tons (dry) in a rolling 12 consecutive month period. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The moisture content in the flyash being loaded shall be at least 6% (by weight). The permittee shall keep records of the date and the amount of water injected (gallons) in a wet conditioning screw conveyor for each flyash loadout. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The permittee shall keep records of the date and flyash loadout (dry-tons). [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall keep records of cumulative flyash loadout (dry-tons) for each month. These records shall be used to demonstrate compliance with the flyash loadout limit for a rolling 12 consecutive month period. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. Particulate matter emissions shall not exceed the hourly rate as calculated using the equation  $E = 3.59 \times P^{0.62}$ ; P is less than or equal to 30 tons per hour. [District Rule 4202] Federally Enforceable Through Title V Permit
10. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4202, Section 4.0 (Amended December 17, 1992). A permit shield is granted from this requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4607-11-1

**EXPIRATION DATE:** 10/31/2014

**EQUIPMENT DESCRIPTION:**

115 BHP CLARK PROTECTION PRODUCTS MODEL JU4H-UF34 DIESEL-FIRED EMERGENCY IC ENGINE  
POWERING A FIRE PUMP

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District NSR Rule, 4102, 4801, 17 CCR 93115, and 40 CFR 60.4207] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 60.4209(a)] Federally Enforceable Through Title V Permit
4. Emissions from this IC engine shall not exceed any of the following limits: 3.23 g-NO<sub>x</sub>/bhp-hr, 0.90 g-CO/bhp-hr, or 0.33 g-VOC/bhp-hr. [District NSR Rule, 13 CCR 2423 and 17 CCR 93115, and 40 CFR 60.4205(c)] Federally Enforceable Through Title V Permit
5. Emissions from this IC engine shall not exceed 0.13 g-PM<sub>10</sub>/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District NSR Rule and 4102, 13 CCR 2423 and 17 CCR 93115, and 40 CFR 60.4205(c)] Federally Enforceable Through Title V Permit
6. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
7. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, and the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 17 CCR 93115, and 40 CFR 60.4211(e)] Federally Enforceable Through Title V Permit
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [40 CFR 60.4211(a)] Federally Enforceable Through Title V Permit
10. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201, Section 3.0 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of District Rule 4801 and Merced County Rule 407. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

DRAFT

# Attachment A

## Detailed Facility Printout

**Detailed Facility Report**  
For Facility=4607 and excluding Deleted Permits  
Sorted by Facility Name and Permit Number

<b>MERCED POWER, LLC</b> <b>30 W SANDY MUSH ROAD</b> <b>EL NIDO, CA</b>	FAC # STATUS: TELEPHONE:	<b>N 4607</b> <b>A</b>	TYPE: TOXIC ID:	<b>TitleV</b>	EXPIRE ON: AREA: INSP. DATE:	<b>10/31/2014</b> <b>71</b> <b>01/12</b>
---	--------------------------------	---------------------------	--------------------	---------------	------------------------------------	--

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
N-4607-6-1	Operation associated with the electric generation	999-99	1	0.00	0.00	A	BIOMASS RECEIVING, STORAGE, TRANSFER, SIZING OPERATION WITH DISC SCREEN AND FUEL SIZER SERVED BY A WATER SPRAY DUST SUPPRESSION SYSTEM, FUEL STORAGE BUILDING, FUEL STORAGE AREA, AND CONVEYING EQUIPMENT
N-4607-7-0	Electrical Generation Component	999-99	1	0.00	0.00	A	LIMESTONE RECEIVING, STORAGE, AND TRANSFER OPERATION WITH AN ENCLOSED LIMESTONE STORAGE SILO SERVED BY A BIN VENT FILTER, ENCLOSED LIMESTONE TRUCK UNLOADING SYSTEM, AND ENCLOSED LIMESTONE TRANSFER SYSTEM
N-4607-8-0	13,000 kW electrical generation	3020-08A E	1	5,109.00	5,109.00	A	185 MMBTU/HR ENERGY PRODUCTS OF IDAHO BIOMASS-FIRED BUBBLING FLUIDIZED BED COMBUSTOR WITH ONE 15 MMBTU/HR PROPANE-FIRED AUXILIARY BURNER POWERING A 13 MW STEAM TURBINE GENERATOR, SERVED BY A SELECTIVE NON-CATALYTIC REDUCTION SYSTEM, A LIMESTONE INJECTION SYSTEM, AND A GENERAL ELECTRIC BAGHOUSE
N-4607-9-0	Electrical Generation Component	999-99	1	0.00	0.00	A	12,500 GALLON PER MINUTE MECHANICAL/INDUCED DRAFT COOLING TOWER WITH 2 CELLS SERVED BY DRIFT ELIMINATORS
N-4607-10-1	Operation associated with the electric generation	999-99	1	0.00	0.00	A	FLY ASH HANDLING, AND LOADOUT OPERATION CONSISTING OF ROTARY FEEDERS, ENCLOSED SCREW/CHAIN CONVEYORS, A SURGE BIN, AND A WET CONDITIONING SCREW CONVEYOR
N-4607-11-0	115 bhp	3020-10 B	1	117.00	117.00	A	115 BHP CLARK PROTECTION PRODUCTS MODEL JU4H-UF34 DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIRE PUMP.

Number of Facilities Reported: 1

# Attachment B

## Exempt Equipment



**San Joaquin Valley  
Unified Air Pollution Control District  
Title V Application - INSIGNIFICANT ACTIVITIES**

COMPANY NAME: Ampersand El Nido Biomass, LLC

FACILITY ID: N - 4607

Check the box next to the exemption category from Rule 2020 which describes any insignificant activity or equipment at your facility not requiring a permit.

Exemption Category	Rule 2020 Citation	√	Exemption Category	Rule 2020 Citation	√
Structure or incinerator assoc. with a structure designed as a dwelling for 4 families or less	4.1		Containers used to store refined lubricating oils	6.6.8	√
Locomotives, airplanes, and watercraft used to transport passengers or freight	4.4		Unvented pressure vessels used exclusively to store liquified gases or assoc with exempt equipment	6.6.9 or 6.13	
Natural gas or LPG-fired boilers or other indirect heat transfer units of 5 MMBtu/hr or less	6.1.1		Portable tanks used exclusively to store produced fluids for ≤ six months	6.6.10	
Piston-type i.e. engine with maximum continuous rating of 50 braking horsepower (bhp) or less	6.1.2		Mobile transport tanks on delivery vehicles of VOCs	6.6.11	
Gas turbine engines with maximum heat input rating of 3 MMBtu/hr or less	6.1.3		Loading racks used for the transfer of less than 4,000 gal/day of unheated organic material with initial boiling point ≥ 302 F or of fuel oil with specific gravity ≥ 0.8251	6.7.1.1	
Space heating equipment other than boilers	6.1.4		Loading racks used for the transfer of asphalt, crude or residual oil stored in exempt tanks, or crude oil with specific gravity ≥ 0.8762	6.7.1.2	
Cooling towers with a circulation rate less than 10,000 gal/min, and that are not used for cooling of process water, or water from barometric jets or condensers--+	6.2		Equipment used exclusively for the transfer of refined lubricating oil	6.7.2	
Use of less than 2 gal/day of graphic arts materials	6.3		Equipment used to apply architectural coatings	6.8.1	
Equipment at retail establishments used to prepare food for human consumption	6.4.1		Unheated, non-conveyorized cleaning equipment with < 10 ft <sup>2</sup> open area; using solvents with initial boiling point ≥ 248 F; and < 25 gal/yr. evaporative losses	6.9	√
Ovens at bakeries with total daily production less than 1,000 pounds and exempt by sec. 6.1.1	6.4.3		Brazing, soldering, or welding equipment	6.10	√
Equipment used exclusively for extruding or compression molding of rubber or plastics, where no plastisizer or blowing agent is used	6.5		Equipment used to compress natural gas	6.11	√
Containers used to store clean produced water	6.6.1		Fugitive emissions sources assoc. with exempt equipment	6.12	
Containers ≤ 100 bbl used to store oil with specific gravity ≥ 0.8762	6.6.2		Pits and Ponds as defined in Rule 1020	6.15	√
Containers ≤ 100 bbl installed prior to 6/1/89 used to store oil with specific gravity ≥ 0.8762	6.6.3		On-site roadmix manufacturing and the application of roadmix as a road base material	6.17	
Containers with a capacity ≤ 250 gallons used to store organic material where the actual storage temperature < 150 F	6.6.4		Emissions less than 2 lb/day from units not included above	6.19	
Containers used to store unheated organic material with an initial boiling point ≥ 302 F	6.6.5		Venting PUC quality natural gas from for sole purpose of pipeline and compressor repair and or maintenance	7.2	
Containers used to store fuel oils or non-air-blown asphalt with specific gravity ≥ 0.9042	6.6.6		Non-structural repairs & maintenance to permitted equipment	7.3	√
Containers used to store petroleum distillates used as motor fuel with specific gravity ≥ 0.8251	6.6.7		Detonation of explosives ≤ 100 lb/day and 1,000 lb/year	7.4	

No insignificant activities (Check this box if no equipment in the above categories exist at your facility.)

**Attachment C**

**SJVUAPCD Permits**



# Permit to Operate

**FACILITY:** N-4607

**EXPIRATION DATE:** 10/31/2014

**LEGAL OWNER OR OPERATOR:**  
**MAILING ADDRESS:**

MERCED POWER, LLC  
P O BOX 298  
CHOWCHILLA, CA 93610

**FACILITY LOCATION:**

30 W SANDY MUSH ROAD  
EL NIDO, CA

**FACILITY DESCRIPTION:**

BIOMASS FIRED POWER PLANT

The Facility's Permit to Operate may include Facility-wide Requirements as well as requirements that apply to specific permit units.

This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require prior District approval. This permit shall be posted as prescribed in District Rule 2010.

**Seyed Sadredin**  
Executive Director / APCO

**David Warner**  
Director of Permit Services

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4607-6-1

**EXPIRATION DATE:** 10/31/2014

**EQUIPMENT DESCRIPTION:**

BIOMASS RECEIVING, STORAGE, TRANSFER, SIZING OPERATION WITH DISC SCREEN AND FUEL SIZER SERVED BY A WATER SPRAY DUST SUPPRESSION SYSTEM, FUEL STORAGE BUILDING, FUEL STORAGE AREA, AND CONVEYING EQUIPMENT

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The operator shall use self-unloading trucks, or truck tipper system to unload the fuel. [District Rule 2201]
4. Operating schedule shall not exceed 345 days per year. [District Rule 2201]
5. PM10 emissions from the unloading operation shall not exceed 0.0001 pounds per ton of fuel received. [District Rule 2201]
6. The amount of the fuel received at this site shall not exceed 1,250 tons in any one day. The permittee shall keep records of the date and the amount of material received. [District Rule 2201]
7. The fuel handling activities conducted by front-end loader(s) or other similar mobile equipment may include one or more of the following items: transfer the fuel from the receiving area to the fuel yard, receiving area to fuel storage building (or E/W drag-chain reclaim conveyors), the fuel yard to the fuel storage building (or E/W drag-chain reclaim conveyors), the fuel yard to N/S drag chain reclaim conveyors, and from receiving to N/S drag chain reclaim conveyors. [District Rule 2201]
8. The amount of fuel handled shall not exceed 240 tons in any one day for each fuel handling activity conducted using front-end loader(s) or other similar mobile equipment. The permittee shall keep records of the date, detailed activity, and the amount of material handled (tons). [District Rule 2201]
9. PM10 emissions from each fuel handling activity shall not exceed 0.0011 pounds per ton of fuel handled. [District Rule 2201]
10. The fuel conveying, screening, and sizing operation may include the following items: fuel transfer from N/S drag chain reclaim conveyors to dual collection conveyor (enclosed), E/W drag chain reclaim conveyors to dual collection conveyor (enclosed), dual collection conveyor to transfer conveyor (enclosed), transfer conveyor to weigh belt conveyor (enclosed), weigh belt conveyor to disc screen conveyor (enclosed), disc screening, oversized material transfer to storage (open), fuel sizing served by a wet suppression system, disc screen conveyor to incline belt conveyor (enclosed), incline belt conveyor to distribution drag-chain conveyor (enclosed), distribution drag-chain conveyor to the metering bins (enclosed) delivering fuel to the combustor. [District Rule 2201]
11. The amount of the fuel processed through each unit in the fuel conveying, screening, and sizing operation shall not exceed 480 tons in any one day. The records on fuel charged to the fluidized combustor may be used to demonstrate compliance with this condition. [District Rule 2201]
12. PM10 emissions from the enclosed fuel transfer shall not exceed 0.000046 pounds per ton of fuel processed. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

13. PM10 emissions from the open fuel transfer shall not exceed 0.0011 pounds per ton of fuel processed. [District Rule 2201]
14. PM10 emissions from the disc screen shall not exceed 0.00074 pounds per ton of fuel processed. [District Rule 2201]
15. PM10 emissions from the fuel sizer shall not exceed 0.0022 pounds per ton of fuel processed. [District Rule 2201]
16. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
17. The permittee shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4607-7-0

**EXPIRATION DATE:** 10/31/2014

**EQUIPMENT DESCRIPTION:**

LIMESTONE RECEIVING, STORAGE, AND TRANSFER OPERATION WITH AN ENCLOSED LIMESTONE STORAGE SILO SERVED BY A BIN VENT FILTER, ENCLOSED LIMESTONE TRUCK UNLOADING SYSTEM, AND ENCLOSED LIMESTONE TRANSFER SYSTEM

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Material removed from the bin vent filter shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
5. The bin vent filter shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
6. The bin vent filter cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
7. There shall be no visible emissions from the limestone transfer operation, for a period or periods aggregating more than three minutes in any one hour. [District Rules 2201 and 4101]
8. Visible emissions from the bin vent filter serving the storage silo shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rules 2201 and 4101]
9. The maximum throughput of limestone loaded into the limestone storage silo shall not exceed either of the following limits: 44 tons of limestone in any one day and 1,600 tons of limestone in any year. [District Rule 2201]
10. PM10 emissions from the limestone silo loading operation shall not exceed 0.00034 lb-PM10 per ton of limestone loaded. [District Rule 2201]
11. Records of daily and annual amounts of limestone processed at the receiving and storage operation (in tons) shall be maintained, retained on-site for a period of at least five years, and made available for District inspection upon request. [District Rules 1070 and 2201]
12. Permittee shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4607-8-0

**EXPIRATION DATE:** 10/31/2014

**EQUIPMENT DESCRIPTION:**

185 MMBTU/HR ENERGY PRODUCTS OF IDAHO BIOMASS-FIRED BUBBLING FLUIDIZED BED COMBUSTOR WITH ONE 15 MMBTU/HR PROPANE-FIRED AUXILIARY BURNER POWERING A 13 MW STEAM TURBINE GENERATOR, SERVED BY A SELECTIVE NON-CATALYTIC REDUCTION SYSTEM, A LIMESTONE INJECTION SYSTEM, AND A GENERAL ELECTRIC BAGHOUSE

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Operating schedule shall not exceed 345 days per year. [District Rule 2201]
5. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
6. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201]
7. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
8. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
9. Replacement bags numbering at least 10% of the total number of bags in the largest baghouse using each type of bag shall be maintained on the premises. [District Rule 2201]
10. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
11. The applicant shall install and maintain an operational ammonia volume flow-rate indicator for the selective non-catalytic reduction ammonia injection system. [District Rule 2201]
12. The permittee shall install, maintain, and operate a continuous emissions monitoring system (CEMS) to measure stack gas NO<sub>x</sub>, SO<sub>x</sub>, CO, and O<sub>2</sub> concentrations and shall meet the performance specification requirements in 40 CFR, Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. The CEMS systems shall also be operated, maintained, and calibrated pursuant to the requirements of 40 CFR 60.7(c) and 40 CFR 60.13. [District Rules 1080, 2201, and 4352]
13. The permittee shall install, maintain, and operate a continuous opacity monitor (COM) and shall meet the performance specification requirements in 40 CFR, Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rules 1080 and 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

14. The permittee shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis. [District Rule 1080]
15. Upon notice by the District that the facility's CEMS system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080]
16. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080]
17. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and compliance source testing are both performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080]
18. Permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080]
19. The plant shall only be fueled by biomass materials listed in the following conditions. [District Rules 2201 and 4102]
20. Allowed fuels: Almond Prunings, Apple Prunings, Apricot Prunings, Cherry Prunings, Citrus Prunings, Fig Prunings, Generic Orchard Prunings, Grape Prunings, Nectarine Prunings, Olive Prunings, Peach Prunings, Pecan Prunings, Pistachio Prunings, Plum Prunings, Walnut Prunings, (continued); [District Rules 2201 and 4102]
21. Allowed fuels: Cedar Bark, Forest Slash/Cull, Hog Fuel (Mill Residue), Sawdust, Construction Wood Waste, Landfill Derived Wood, Landscape Tree Trimmings, Pallet/Bins Wood, Urban Development Clearing Trees, (continued); [District Rules 2201 and 4102]
22. Allowed fuels: Grape Pomace, Olive Pomace, Raisin Pomace, Tomato Pomace, Cherry Pits, Nectarine Pits, Olive Pits, Peach Pits, Prune Pits, Almond Shells, Peanut Shells, Pecan Shells, Pistachio Shells, Walnut Shells, Cotton Stalks, Coffee Grounds, Cotton Gin Trash, Turkey (Wood) Shavings, Ditchbank or Canal Weeds, Tumbleweeds, Alfalfa Straw, Barley Straw, Bean Straw/Stalks, Corn Stalks, Milo Sorghum, Rice Straw, Wheat Straw, Char, or other fuels as approved by the District. [District Rules 2201 and 4102]
23. Urban wood waste (construction and landfill derived wood wastes) is approved as fuel provided the mixed urban wood waste fuel contains less than 1% by weight, of plastic, rubber, metals, roofing felt paper, and other non-wood contaminants (other than dirt or ash). No asbestos-containing materials are approved as fuel. [District Rule 4102]
24. If urban wood wastes have been burned during the 365 day period prior to October 31 of any year, fuel testing shall be conducted by December 31 of that year, as follows: equivalent of one truckload of mixed urban wood waste fuel prepared for combustion in the boiler shall be weighed, dumped, and all contaminants shall be sorted from the fuel, identified (plastic, rubber, metals, roofing felt paper, or other non-wood contaminants) and weighed. The report for this test shall be forwarded to the District by January 31 (one month after fuel testing deadline). [District Rule 4102]
25. The auxiliary burner shall be used during start-up to reach the solid fuel ignition temperature throughout the combustor before feeding any solid fuel. [District Rule 2201]
26. "Startup" is the period of time during which the boiler is heated to operating temperature at steady state load from a lower temperature, not to exceed 96 hours. If curing of the refractory is required after furnace repair or modification, startup time may be extended to no longer than 192 hours. "Shutdown" is the period of time during which the boiler is allowed to cool from its operating temperature at steady state load to a lower temperature, not to exceed 12 hours. [District Rule 4352]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



27. Emissions from the fluidized bed combustor unit, except during periods of startup and shutdown, shall not exceed any of the following limits: NO<sub>x</sub> - 14.8 lb/hr or 0.08 lb/MMBtu; SO<sub>x</sub> - 6.48 lb/hr or 0.035 lb/MMBtu; PM<sub>10</sub> - 7.40 lb/hr or 0.04 lb/MMBtu; CO - 10.55 lb/hr or 72 ppmv @ 3% O<sub>2</sub> (equivalent to 0.057 lb/MMBtu); and VOC - 0.93 lb/hr or 0.005 lb/MMBtu. NO<sub>x</sub> (as NO<sub>2</sub>) and CO emission limits are based on 24 hour rolling averages. SO<sub>x</sub> emission limits are based on 1 hour rolling averages. All other emission limits are 15-minute rolling averages. [District Rules 2201, 4352, and 4801]
28. The ammonia (NH<sub>3</sub>) emissions shall not exceed 85 ppmv @ 3% O<sub>2</sub> (equivalent to 0.041 lb/MMBtu) over a 24 hour rolling average. [District Rules 2201 and 4102]
29. Emissions from the auxiliary burner shall not exceed any of the following limits: NO<sub>x</sub> - 0.202 lb/MMBtu; SO<sub>x</sub> - 0.005 lb/MMBtu; PM<sub>10</sub> - 0.006 lb/MMBtu; CO - 0.038 lb/MMBtu; and VOC - 0.003 lb/MMBtu. [District Rules 2201 and 4801]
30. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. The sampling ports shall be located in accordance with the ARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
31. Source testing to measure the NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, VOC, and NH<sub>3</sub> emission rates (lb/hr and lb/MMBtu or ppmvd @ 3% O<sub>2</sub>) shall be conducted at least once every twelve months. [District Rules 1081 and 4352]
32. All emission measurements shall be made with the unit operating at conditions representative of normal operations. No compliance determination shall be established within two hours after a continuous period in which fuel flow to the unit is zero, or is shut off for 30 minutes or longer. [District Rule 4352]
33. Compliance demonstration (source testing) shall be witnessed or authorized by the District, and samples shall be collected by a certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
34. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100; NO<sub>x</sub> (lb/MMBtu) - EPA Method 19; SO<sub>x</sub> - EPA Method 6 or ARB Method 100; PM<sub>10</sub> - EPA Method 5 (front half and back half) or 201 and 202a; CO (ppmv) - EPA Method 10 or ARB Method 100; CO<sub>2</sub> - EPA Method 3 or ARB Method 100; VOC - EPA Method 18 or 25 or ARB Method 100; stack gas oxygen - EPA Method 3 or 3A or ARB Method 100; ammonia - BAAQMD ST-1B; Stack Gas Flow Rate - EPA Method 2; Moisture Content - EPA Method 4; Fuel Heating Value - ASTM Method D2015-96 or E711-87. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing, and written approval received from the District, prior to the submission of the source test plan. [District Rules 1081, 4001, and 4352]
35. Permittee shall project and use the proper mix of fuels to ensure that actual emissions from this boiler are offset with creditable biomass on a quarterly basis. [District Rule 2201]
36. Open-burning emission factors used to determine the quantity of offsets generated by the diversion of biomass from open-burning are listed in the attachment "Open Burn Emission Factors" (District policy SSP-2005). [District Rule 2201]
37. If quarterly actual NO<sub>x</sub> emissions from this boiler are greater than 5,000 lbs (e.g. 1/4 offset threshold), the emission reduction credit from creditable biomass fuel shall be calculated for NO<sub>x</sub> using the following formula:  $Pq = x * [\text{sum of } j=1 \text{ to } n \text{ for } (B_j) * (EF_j) * (HBF_j) * (QDF_{jq})]$  where: Pq = Pollutant offset credit in lb/qtr = sum of NO<sub>x</sub> emissions from ag waste credit < 15 miles + NO<sub>x</sub> emissions > 15 miles from facility; q = calendar quarter; x = 0.5 for biomass originating > 15 miles and 0.769 for < 15 miles; j = each creditable biomass type; B = tons of biomass type (j) used per quarter; EF = emission factor for particular biomass (from SSP-2005); HBF<sub>j</sub> = Historical Burn Fraction - fraction of biomass type (j) that has been demonstrated to have historically been open field burned (a District approved HBF factor must be used); QDF<sub>jq</sub> = Quarterly Distribution Factor - fraction of burning of biomass (j) which occurs in calendar quarter (q). [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

38. Permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals; data and magnitude of excess emissions; nature and cause of excess emission (averaging period used for data reporting shall correspond to the averaging period for each respective emission standard); corrective actions taken and preventive measures adopted; applicable time and date of each period during which a CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; a negative declaration when no excess emissions occurred, and reports on opacity monitors giving the number of three minute periods during which the average opacity exceeded the standard for each hour of operation. The average may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced instantaneous opacity measurements per minute. Any time exempted shall be considered before determining the excess averages of opacity. [District Rule 1080]
39. Permittee shall maintain accurate records of continuous emissions monitoring (CEM) results, dates of occurrences and duration of start-up, shutdown, malfunction, performance testing, evaluations, calibrations, checks, adjustments, and maintenance, and daily records of propane fuel usage. [District Rules 1080 and 2201]
40. Daily records for each load of creditable biomass received shall be maintained which include the geographic origin (for applicability of distance offset ratio), date, weigh ticket number, supplier name, fuel type, tons received, the distance offset ratio for the load of biomass, and the amount of offset credit (in pounds of NOx) attributable to each load of biomass. Records shall include certifications that any creditable biomass for which offset credit is claimed has historically been open burned in the San Joaquin Valley air basin. [District Rule 2201]
41. Any fuel which is not combusted in the boiler within 12 months of delivery to the site shall not have any value for emission credits purposes. [District Rule 2201]
42. Permittee shall submit to the District a quarterly report accounting for the tonnage of agricultural waste eliminated from open field burning and used as plant fuel. [District Rule 2201]
43. Quarterly report of agricultural waste eliminated from open field burning (to offset NOx emissions) used as fuel at facility shall document the following: historical burn fraction (HBF) and quarterly distribution factor (QDF) for each biomass fuel used to calculate credit; creditable ag waste fuel receipt quantities; if fuel originates > 15 miles from facility, offset credit ratios; emission factors used; and summary of the resultant emissions offsets provided using the calculation above. The report shall be submitted to the District within 30 days of the end of the quarter. [District Rule 2201]
44. The owner/operator shall maintain an operating log that includes the type and quantity of fuel used and the hhv of each fuel as determined by District Rule 4352, section 6.4 (as amended 10/19/95), or as certified by a third party fuel supplier. [District Rule 4352]
45. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]
46. All records shall be maintained for a period of at least five years and made available for District, ARB, or EPA inspection upon request. [District Rules 1070 and 4352]
47. Permittee shall submit an application to comply with Rule 2520 (Federally Mandated Operating Permits) within twelve months of commencing operation. [District Rule 2520]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4607-9-0

**EXPIRATION DATE:** 10/31/2014

**EQUIPMENT DESCRIPTION:**

12,500 GALLON PER MINUTE MECHANICAL/INDUCED DRAFT COOLING TOWER WITH 2 CELLS SERVED BY DRIFT ELIMINATORS

## PERMIT UNIT REQUIREMENTS

---

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. Operating schedule shall not exceed 345 days per year. [District Rule 2201]
6. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012]
7. Drift eliminator drift rate shall not exceed 0.005%. [District Rule 2201]
8. PM10 emission rate shall not exceed 7.5 lb/day. [District Rule 2201]
9. Compliance with the PM10 daily emission limit shall demonstrated as follows:  $PM10 \text{ lb/day} = (\text{water recirculation rate}) \times (\text{total dissolved solids concentration in the blowdown water}) \times (\text{design drift rate})$ . [District Rule 2201]
10. Compliance with PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory every calendar quarter. [District Rule 1081]
11. Permittee shall submit an application to comply with SJVUAPCD District Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4607-10-1

**EXPIRATION DATE:** 10/31/2014

**EQUIPMENT DESCRIPTION:**

FLY ASH HANDLING, AND LOADOUT OPERATION CONSISTING OF ROTARY FEEDERS, ENCLOSED SCREW/CHAIN CONVEYORS, A SURGE BIN, AND A WET CONDITIONING SCREW CONVEYOR

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. The enclosed conveyors include: economizer conveyor to boiler ash conveyor, multiclone conveyor #1 to the boiler ash conveyor, multiclone conveyor #2 to the boiler ash conveyor, boiler conveyor to the boiler ash conveyor, super heater conveyor to the boiler ash conveyor, boiler ash conveyor to the collecting conveyor, baghouse conveyor #1 to the collecting conveyor, baghouse conveyor #2 to the collecting conveyor, collecting conveyor to surge bin, surge bin to truck loadout via a wet conditioning screw conveyor. [District Rule 2201]
4. PM10 emissions from each flyash transfer operation shall not exceed 0.000046 pounds per ton of flyash loadout. [District Rule 2201]
5. The flyash loadout shall not exceed 96 tons (dry) in any one day. [District Rule 2201]
6. The flyash loadout shall not exceed 11,000 tons (dry) in a rolling 12 consecutive month period. [District Rule 2201]
7. The moisture content in the flyash being loaded shall be at least 6% (by weight). The permittee shall keep records of the date and the amount of water injected (gallons) in a wet conditioning screw conveyor for each flyash loadout. [District Rule 2201]
8. The permittee shall keep records of the date and flyash loadout (dry-tons). [District Rule 2201]
9. The permittee shall keep records of cumulative flyash loadout (dry-tons) for each month. These records shall be used to demonstrate compliance with the flyash loadout limit for a rolling 12 consecutive month period. [District Rule 2201]
10. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
11. The permittee shall submit an application to comply with Rule 2520 - Federally Mandated Operating Permits within twelve months of commencing operation. [District Rule 2520]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-4607-11-0

**EXPIRATION DATE:** 10/31/2014

**EQUIPMENT DESCRIPTION:**

115 BHP CLARK PROTECTION PRODUCTS MODEL JU4H-UF34 DIESEL-FIRED EMERGENCY IC ENGINE  
POWERING A FIRE PUMP.

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201, 4102, and 4801, and 17 CCR 93115, and 40 CFR 60.4207]
5. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 60.4209(a)]
6. Emissions from this IC engine shall not exceed any of the following limits: 3.23 g-NOx/bhp-hr, 0.90 g-CO/bhp-hr, or 0.33 g-VOC/bhp-hr. [District Rule 2201, 13 CCR 2423 and 17 CCR 93115, and 40 CFR 60.4205(c)]
7. Emissions from this IC engine shall not exceed 0.13 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 13 CCR 2423 and 17 CCR 93115, and 40 CFR 60.4205(c)]
8. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, and the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]
10. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 17 CCR 93115, and 40 CFR 60.4211(e)]
11. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [40 CFR 60.4211(a)]
12. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

13. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115]

These terms and conditions are part of the Facility-wide Permit to Operate.