



SEP 03 2013

Mr. David Kandolha
Merced Power, LLC
PO BOX 298
Chowchilla, CA 93610

Re: Notice of Minor Title V Permit Modification
District Facility # N-4607
Project # N-1132432

Dear Mr. Kandolha:

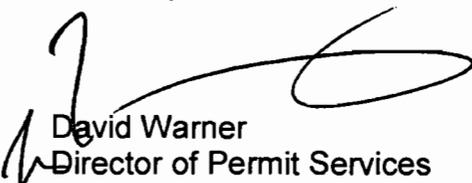
Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to incorporate recently issued N-4607-7-2 and '8-6 into the Title V operating permit. The modification is to allow use of sodium bicarbonate as an additional sorbent for SO₂ emission reduction from the fluidized bed boiler listed on permit N-4607-8. In addition, the modification will authorize permit N-4607-7 to receive, store, and transfer sodium bicarbonate in addition to limestone for use in the fluidized bed boiler for SO₂ emission reduction.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued N-4607-7-2 and '8-6, emission increases, application, and previous Title V permit. This project will be subject to a 45-day EPA commenting period prior to the District taking final action.

If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,



David Warner
Director of Permit Services

Enclosures

cc: Gerardo C. Rios, EPA (w/enclosure) via email

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

TITLE V APPLICATION REVIEW

Minor Modification
Project #: N-1132432

Engineer: Manuel Salinas
Date: August 1, 2013

Facility Number: N-4607
Facility Name: Merced Power, LLC
Mailing Address: PO BOX 298
Chowchilla, CA 93610

Contact Name: Eric Bomgardner
Phone: (559) 665-0807

Responsible Official: David Kandolha
Title: Manager

I. PROPOSAL

Merced Power, LLC is proposing a Title V minor permit modification to incorporate the recently issued N-4607-7-2 and N-4607-8-6 into the Title V operating permit. The modification is to allow use of sodium bicarbonate as an additional sorbent for SO₂ emission reduction from the fluidized bed boiler listed on permit N-4607-8. In addition, the modification will authorize permit N-4607-7 to receive, store, and transfer sodium bicarbonate in addition to limestone for use in the fluidized bed boiler for SO₂ emission reduction.

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

II. FACILITY LOCATION

30 W. Sandy Mush Road, El Nido, CA 95340

III. EQUIPMENT DESCRIPTION

N-4607-7-3: LIMESTONE/SODIUM BICARBONATE RECEIVING, STORAGE, AND TRANSFER OPERATION WITH AN ENCLOSED STORAGE SILO SERVED BY A BIN VENT FILTER, ENCLOSED TRUCK UNLOADING SYSTEM, AND ENCLOSED TRANSFER SYSTEM

N-4607-8-7: 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 WITH AN AUTOMATED AMMONIA INJECTION SYSTEM, A LIMESTONE/SODIUM BICARBONATE INJECTION SYSTEM, AND A GENERAL ELECTRIC BAGHOUSE

IV. SCOPE OF EPA AND PUBLIC REVIEW

This change to a Title V permit is considered to be a minor modification and, as such, requires no public review.

V. APPLICABLE REQUIREMENTS

District Rule 2520, Federally Mandated Operating Permits (Adopted June 21, 2001)

VI. DESCRIPTION OF PROPOSED MODIFICATIONS

N-4607-7-3:

Permit condition 5 on the current Permit to Operate was changed as permit condition 6 on the proposed Permit to Operate. The designation of "limestone transfer operation" was changed to "transfer operation".

Permit condition 7 on the current Permit to Operate was changed as permit condition 8 on the proposed Permit to Operate. The designation of "limestone loaded" was changed to "material loaded" and "limestone storage silo" was changed to "storage silo".

Permit condition 8 on the current Permit to Operate was changed as permit condition 9 on the proposed Permit to Operate. The designation of "limestone silo loading operation" was changed to "silo loading operation" and "limestone loaded" was changed to "material loaded".

Permit condition 9 on the current Permit to Operate was changed as permit condition 10 on the proposed Permit to Operate. The designation of "limestone processed" was changed to "material processed".

N-4607-8-7:

Permit condition 67 was added to the proposed Permit to Operate since this boiler is subject, under 40 CFR 63, Subpart JJJJJJ, to a work practice or management practice standard of a tuneup.

Permit condition 68 was added to the proposed Permit to Operate since this boiler is subject, under 40 CFR 63, Subpart JJJJJJ, to an energy assessment requirement.

Permit condition 69 was added to the proposed Permit to Operate since this boiler is subject, under 40 CFR 63, Subpart JJJJJJ, to show that an energy assessment of the boiler and its energy use systems was completed ensuring compliance.

VII. COMPLIANCE

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
 - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including;

1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
2. The source's suggested draft permit; and
3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used.

VIII. ATTACHMENTS

- A. Proposed Modified Title V Operating Permit No. N-4607-7-3 and '-8-7
- B. Authorities to Construct No. N-4607-7-2 and '-8-6
- C. Emissions Increases
- D. Application
- E. Previous Title V Operating Permit No.'s N-4607-7-1 and '-8-3

ATTACHMENT A

Proposed Modified Title V Operating Permit No.
(N-4607-7-3 and '-8-7)

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-4607-7-3

EXPIRATION DATE: 10/31/2016

EQUIPMENT DESCRIPTION:

LIMESTONE/SODIUM BICARBONATE RECEIVING, STORAGE, AND TRANSFER OPERATION WITH AN ENCLOSED STORAGE SILO SERVED BY A BIN VENT FILTER, ENCLOSED TRUCK UNLOADING SYSTEM, AND ENCLOSED 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 Rule 2201] Federally Enforceable Through Title V Permit
3. The bin vent filter shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The bin vent filter cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
5. There shall be no visible emissions from the transfer operation, for a period or periods aggregating more than three minutes in any one hour. [District Rules 2201 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 Rules 2201 and 4101] Federally Enforceable Through Title V Permit
7. The maximum throughput of material loaded into the storage silo shall not exceed either of the following limits: 44 tons of in any one day and 1,600 tons in any year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. PM10 emissions from the silo loading operation shall not exceed 0.00034 lb-PM10 per ton of material loaded. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Records of daily and annual amounts of material 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] 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] 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-4607-8-7

EXPIRATION DATE: 10/31/2016

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 WITH AN AUTOMATED AMMONIA INJECTION SYSTEM, A LIMESTONE/SODIUM BICARBONATE 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 Rule 2201] 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 Rule 2201] Federally Enforceable Through Title V Permit
4. The differential pressure gauge reading range shall be maintained between 2" and 8.5" water column. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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] Federally Enforceable Through Title V Permit
9. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit
11. No later than 30 days following restart of the facility, the applicant shall install, maintain, and operate an automated ammonia injection system in the selective non-catalytic reduction (SNCR) system. The automated mode may be overridden by the facility operator as necessary to maintain compliance with the emission limits listed within this permit. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-cv-00241-LJO-SMS, Section V.13.b, issued February 14, 2011] Federally Enforceable Through Title V Permit
12. No later than 90 days following restart of the facility, the applicant shall install, maintain, and operate a stack gas flow monitoring system. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-cv-00241-LJO-SMS, Section V.13.a, issued February 14, 2011] 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.

13. The permittee shall install, maintain, and operate a continuous emissions monitoring system (CEMS) to measure stack gas NO_x, SO_x, CO, and O₂ concentrations and mass emission rates 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] Federally Enforceable Through Title V Permit
14. 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, and 40 CFR 64] Federally Enforceable Through Title V Permit
15. 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
16. 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
17. 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
18. 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
19. 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
20. Within 90 days following restart of the facility, the CEM system shall be operated and maintained in accordance with the operation and maintenance procedures identified in the continuous emission monitoring system quality assurance/quality control plan. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-cv-00241-LJO-SMS, Section V.13.c, issued February 14, 2011] Federally Enforceable Through Title V Permit
21. The plant shall only be fueled by biomass materials listed in the following conditions. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
22. 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] Federally Enforceable Through Title V Permit
23. 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] Federally Enforceable Through Title V Permit
24. 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] 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. 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] Federally Enforceable Through Title V Permit
26. 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] Federally Enforceable Through Title V Permit
27. 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] Federally Enforceable Through Title V Permit
28. "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
29. Emissions from the fluidized bed combustor unit, except during periods of startup and shutdown, shall not exceed any of the following limits: NO_x - 14.8 lb/hr or 0.08 lb/MMBtu; SO_x - 6.48 lb/hr or 0.035 lb/MMBtu; PM₁₀ - 7.40 lb/hr or 0.04 lb/MMBtu; CO - 10.55 lb/hr or 72 ppmv @ 3% O₂ (equivalent to 0.057 lb/MMBtu); and VOC - 0.93 lb/hr or 0.005 lb/MMBtu. NO_x (as NO₂) and CO emission limits are based on 24 hour rolling averages. SO_x emission limits are based on 3 hour rolling averages. [District Rules 2201, 4352, and 4801]
30. The ammonia (NH₃) emissions shall not exceed 85 ppmv @ 3% O₂ (equivalent to 0.041 lb/MMBtu) over a 24 hour rolling average. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
31. Emissions from the auxiliary burner shall not exceed any of the following limits: NO_x - 0.202 lb/MMBtu; SO_x - 0.005 lb/MMBtu; PM₁₀ - 0.006 lb/MMBtu; CO - 0.038 lb/MMBtu; and VOC - 0.003 lb/MMBtu. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
32. 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_x, CO, and O₂ 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
33. Source testing to measure the NO_x, SO_x, PM₁₀, CO, VOC, and NH₃ emission rates (lb/hr and lb/MMBtu or ppmvd @ 3% O₂) for the fluidized bubbling bed combustor shall be conducted at least once every twelve months. [District Rules 1081 and 4352] Federally Enforceable Through Title V Permit
34. 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
35. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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36. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100; NO_x (lb/MMBtu) - EPA Method 19; SO_x - EPA Method 6 or ARB Method 100; PM₁₀ - EPA Method 5 (front half and back half) or 201 and 202a; CO (ppmv) - EPA Method 10 or ARB Method 100; CO₂ - 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
37. 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] Federally Enforceable Through Title V Permit
38. 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] Federally Enforceable Through Title V Permit
39. If quarterly actual NO_x 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_x using the following formula: $Pq = x * [\text{sum of } j=1 \text{ to } n \text{ for } (Bj) * (EFj) * (HBFj) * (QDFjq)]$ where: Pq= Pollutant offset credit in lb/qtr = sum of NO_x emissions from ag waste credit < 15 miles + NO_x 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); HBFj = 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); QDFjq = Quarterly Distribution Factor - fraction of burning of biomass (j) which occurs in calendar quarter (q). [District Rule 2201] Federally Enforceable Through Title V Permit
40. 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
41. 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] Federally Enforceable Through Title V Permit
42. 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_x) 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] Federally Enforceable Through Title V Permit
43. 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] Federally Enforceable Through Title V Permit
44. 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] 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. Quarterly report of agricultural waste eliminated from open field burning (to offset NO_x 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] Federally Enforceable Through Title V Permit
46. 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] Federally Enforceable Through Title V Permit
47. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
48. 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
49. 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
50. 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
51. 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
52. 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
53. 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
54. 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
55. The owner or operator shall maintain records of opacity. [40 CFR 60.49b(f) 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.

56. The owner or operator shall submit deviation reports to report any opacity exceedance that occurred during the reporting period. [40 CFR 60.49b(h) and 40 CFR 64] Federally Enforceable Through Title V Permit
57. 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
58. The reporting period for the reports required is each 6 month period. All reports shall be submitted to the San Joaquin Valley Air Pollution Control District and shall be postmarked by the 30th day of the end of the reporting period. The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. [40 CFR 60.49b(w)] Federally Enforceable Through Title V Permit
59. 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] Federally Enforceable Through Title V Permit
60. 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] Federally Enforceable Through Title V Permit
61. 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] Federally Enforceable Through Title V Permit
62. 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] Federally Enforceable Through Title V Permit
63. 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] Federally Enforceable Through Title V Permit
64. 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] Federally Enforceable Through Title V Permit
65. 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] Federally Enforceable Through Title V Permit
66. By the applicable due date specified in 40 CFR 63, Subpart JJJJJ and every two years thereafter, permittee shall conduct a performance tune-up of the boiler in accordance with 40 CFR 63.11223(b). Permittee shall submit a signed statement of the Notification of Compliance Status report that a tune-up of the boiler was completed. [40 CFR 63.11214(b)]
67. By the applicable due date specified in 40 CFR 63, Subpart JJJJJ, the permittee shall conduct a one-time energy assessment as described in 40 CFR 63, Subpart JJJJJ, Table 2. Permittee shall submit a signed statement in the Notification of Compliance Status report that the energy assessment was completed, and shall submit the energy assessment report upon request. [40 CFR 63.11214(c)]
68. Permittee shall submit Notification of Compliance Status reports by the applicable due date specified in 40 CFR 63, Subpart JJJJJ. [40 CFR 63.11225(a)(4)]

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

DRAFT

ATTACHMENT B

Authorities to Construct No.
(N-4607-7-2 and '-8-6)



AUTHORITY TO CONSTRUCT

PERMIT NO: N-4607-7-2

ISSUANCE DATE: 07/11/2013

LEGAL OWNER OR OPERATOR: MERCED POWER, LLC
MAILING ADDRESS: P O BOX 298
CHOWCHILLA, CA 93610

LOCATION: 30 W SANDY MUSH ROAD
EL NIDO, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 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: ALLOW RECEIVING, STORAGE, AND TRANSFER OF SODIUM BICARBONATE

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] 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. Material removed from the bin vent filter shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The bin vent filter shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The bin vent filter cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
6. There shall be no visible emissions from the transfer operation, for a period or periods aggregating more than three minutes in any one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
7. 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO


DAVID WARNER, Director of Permit Services
N-4607-7-2 Jul 11 2013 8:02AM - TOMS : Joint Inspection NOT Required

8. The maximum throughput of material loaded into the storage silo shall not exceed either of the following limits: 44 tons of in any one day and 1,600 tons in any year. [District Rule 2201] Federally Enforceable Through Title V Permit
9. PM10 emissions from the silo loading operation shall not exceed 0.00034 lb-PM10 per ton of material loaded. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Records of daily and annual amounts of material 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] Federally Enforceable Through Title V Permit
11. 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
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), and Rule 4202, Section 4.0 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

PERMIT NO: N-4607-8-6

ISSUANCE DATE: 07/11/2013

LEGAL OWNER OR OPERATOR: MERCED POWER, LLC
MAILING ADDRESS: P O BOX 298
CHOWCHILLA, CA 93610

LOCATION: 30 W SANDY MUSH ROAD
EL NIDO, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 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 WITH AN AUTOMATED AMMONIA INJECTION SYSTEM, A LIMESTONE INJECTION SYSTEM, AND A GENERAL ELECTRIC BAGHOUSE: ADD SODIUM BICARBONATE AS A SORBENT FOR REDUCTION OF SO2 EMISSIONS

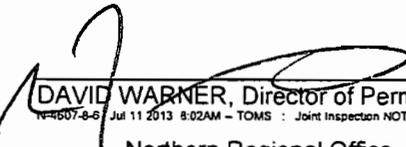
CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] 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 Rule 2201] Federally Enforceable Through Title V Permit
4. 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] Federally Enforceable Through Title V Permit
5. The differential pressure gauge reading range shall be maintained between 2" and 8.5" water column. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO


DAVID WARNER, Director of Permit Services

N-4607-8-6 Jul 11 2013 8:02AM - TOMS : Joint Inspection NOT Required

7. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
10. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
12. No later than 30 days following restart of the facility, the applicant shall install, maintain, and operate an automated ammonia injection system in the selective non-catalytic reduction (SNCR) system. The automated mode may be overridden by the facility operator as necessary to maintain compliance with the emission limits listed within this permit. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-cv-00241-LJO-SMS, Section V.13.b, issued February 14, 2011] Federally Enforceable Through Title V Permit
13. No later than 90 days following restart of the facility, the applicant shall install, maintain, and operate a stack gas flow monitoring system. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-cv-00241-LJO-SMS, Section V.13.a, issued February 14, 2011] Federally Enforceable Through Title V Permit
14. The permittee shall install, maintain, and operate a continuous emissions monitoring system (CEMS) to measure stack gas NO_x, SO_x, CO, and O₂ concentrations and mass emission rates 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] Federally Enforceable Through Title V Permit
15. 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, and 40 CFR 64] Federally Enforceable Through Title V Permit
16. 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
17. 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
18. 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
19. 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
20. 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

CONDITIONS CONTINUE ON NEXT PAGE

21. Within 90 days following restart of the facility, the CEM system shall be operated and maintained in accordance with the operation and maintenance procedures identified in the continuous emission monitoring system quality assurance/quality control plan. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-cv-00241-LJO-SMS, Section V.13.c, issued February 14, 2011] Federally Enforceable Through Title V Permit
22. The plant shall only be fueled by biomass materials listed in the following conditions. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
23. 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] Federally Enforceable Through Title V Permit
24. 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] Federally Enforceable Through Title V Permit
25. 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] Federally Enforceable Through Title V Permit
26. 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] Federally Enforceable Through Title V Permit
27. 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] Federally Enforceable Through Title V Permit
28. 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] Federally Enforceable Through Title V Permit
29. "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
30. Emissions from the fluidized bed combustor unit, except during periods of startup and shutdown, shall not exceed any of the following limits: NO_x - 14.8 lb/hr or 0.08 lb/MMBtu; SO_x - 6.48 lb/hr or 0.035 lb/MMBtu; PM₁₀ - 7.40 lb/hr or 0.04 lb/MMBtu; CO - 10.55 lb/hr or 72 ppmv @ 3% O₂ (equivalent to 0.057 lb/MMBtu); and VOC - 0.93 lb/hr or 0.005 lb/MMBtu. NO_x (as NO₂) and CO emission limits are based on 24 hour rolling averages. SO_x emission limits are based on 3 hour rolling averages. [District Rules 2201, 4352, and 4801]
31. The ammonia (NH₃) emissions shall not exceed 85 ppmv @ 3% O₂ (equivalent to 0.041 lb/MMBtu) over a 24 hour rolling average. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
32. Emissions from the auxiliary burner shall not exceed any of the following limits: NO_x - 0.202 lb/MMBtu; SO_x - 0.005 lb/MMBtu; PM₁₀ - 0.006 lb/MMBtu; CO - 0.038 lb/MMBtu; and VOC - 0.003 lb/MMBtu. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

33. 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_x, CO, and O₂ 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
34. Source testing to measure the SO_x emission rate (lb/hr and lb/MMBtu) for the fluidized bubbling bed combustor shall be conducted within 60 days of startup under this Authority to Construct permit. [District Rule 2201]
35. Source testing to measure the NO_x, SO_x, PM₁₀, CO, VOC, and NH₃ emission rates (lb/hr and lb/MMBtu or ppmvd @ 3% O₂) for the fluidized bubbling bed combustor shall be conducted at least once every twelve months. [District Rules 1081 and 4352] Federally Enforceable Through Title V Permit
36. 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
37. 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
38. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100; NO_x (lb/MMBtu) - EPA Method 19; SO_x - EPA Method 6 or ARB Method 100; PM₁₀ - EPA Method 5 (front half and back half) or 201 and 202a; CO (ppmv) - EPA Method 10 or ARB Method 100; CO₂ - 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
39. 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] Federally Enforceable Through Title V Permit
40. 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] Federally Enforceable Through Title V Permit
41. If quarterly actual NO_x 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_x using the following formula: $Pq = x * [\sum_{j=1}^n (B_j) * (EF_j) * (HBF_j) * (QDF_{jq})]$ where: Pq = Pollutant offset credit in lb/qtr = sum of NO_x emissions from ag waste credit < 15 miles + NO_x 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_{jq} = Quarterly Distribution Factor - fraction of burning of biomass (j) which occurs in calendar quarter (q). [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

42. 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
43. 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] Federally Enforceable Through Title V Permit
44. 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_x) 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] Federally Enforceable Through Title V Permit
45. 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] Federally Enforceable Through Title V Permit
46. 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] Federally Enforceable Through Title V Permit
47. Quarterly report of agricultural waste eliminated from open field burning (to offset NO_x 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] Federally Enforceable Through Title V Permit
48. 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] Federally Enforceable Through Title V Permit
49. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
50. 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
51. 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

CONDITIONS CONTINUE ON NEXT PAGE

52. 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
53. 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
54. 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
55. 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
56. 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
57. The owner or operator shall maintain records of opacity. [40 CFR 60.49b(f) and 40 CFR 64] Federally Enforceable Through Title V Permit
58. The owner or operator shall submit deviation reports to report any opacity exceedance that occurred during the reporting period. [40 CFR 60.49b(h) and 40 CFR 64] Federally Enforceable Through Title V Permit
59. 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
60. The reporting period for the reports required is each 6 month period. All reports shall be submitted to the San Joaquin Valley Air Pollution Control District and shall be postmarked by the 30th day of the end of the reporting period. The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. [40 CFR 60.49b(w)] Federally Enforceable Through Title V Permit
61. 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] Federally Enforceable Through Title V Permit
62. 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

63. 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] Federally Enforceable Through Title V Permit
64. 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] Federally Enforceable Through Title V Permit
65. 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] Federally Enforceable Through Title V Permit
66. 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] Federally Enforceable Through Title V Permit
67. 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] Federally Enforceable Through Title V Permit
68. By the applicable due date specified in 40 CFR 63, Subpart JJJJJJ and every two years thereafter, permittee shall conduct a performance tune-up of the boiler in accordance with 40 CFR 63.11223(b). Permittee shall submit a signed statement of the Notification of Compliance Status report that a tune-up of the boiler was completed. [40 CFR 63.11214(b)]
69. By the applicable due date specified in 40 CFR 63, Subpart JJJJJJ, the permittee shall conduct a one-time energy assessment as described in 40 CFR 63, Subpart JJJJJJ, Table 2. Permittee shall submit a signed statement in the Notification of Compliance Status report that the energy assessment was completed, and shall submit the energy assessment report upon request. [40 CFR 63.11214(c)]
70. Permittee shall submit Notification of Compliance Status reports by the applicable due date specified in 40 CFR 63, Subpart JJJJJJ. [40 CFR 63.11225(a)(4)]

ATTACHMENT C

Emissions Increases

There are no proposed changes in emissions in this project.

	SSIPE (lb/yr)				
	NOx	VOC	CO	SOx	PM10
N-4607-7-3	0	0	0	0	0
N-4607-8-7	0	0	0	0	0
TOTAL	0	0	0	0	0

ATTACHMENT D

Application

San Joaquin Valley Air Pollution Control District

www.valleyair.org

RECEIVED

JUN 27 2013

Permit Application For:

Permits Services
SJVAPCD

ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: <u>Merced Power, LLC</u>	
2. MAILING ADDRESS:	
STREET/P.O. BOX: <u>PO Box 298</u>	
CITY: <u>Chowchilla</u>	STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>93610</u>
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:	INSTALLATION DATE:
STREET: <u>16457 Avenue 24-1/2</u> CITY: <u>Chowchilla</u>	N/A
<u> </u> ¼ SECTION TOWNSHIP RANGE <u> </u>	
4. GENERAL NATURE OF BUSINESS:	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary)	
Modification Amendment to Permit No's. N-4607-7-1 and N-4607-8-3. Please see attached sheet for the modification description.	
6. TYPE OR PRINT NAME OF APPLICANT: <u>David Kandolha</u>	TITLE OF APPLICANT: <u>Manager</u>
7. SIGNATURE OF APPLICANT: 	DATE: <u>06/26/13</u>
	PHONE: <u>(559) 665-0807</u> FAX: <u>(559) 665-0817</u> EMAIL: <u>mdecastro@chowndo.com</u>

For APCD Use Only:

DATE STAMP JUL 01 2013	FILING FEE RECEIVED: \$ <u>19.00</u>	CHECK#: <u>7179</u>
FINANCE SJVUAPCD	DATE PAID: <u>6/27/13 KM</u>	
	PROJECT NO: <u>N-1132432</u>	FACILITY ID: <u>N-4607</u>

**San Joaquin Valley
Unified Air Pollution Control District**

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE
 MINOR PERMIT MODIFICATION AMENDMENT (for N-4607-7-1 and N-4607-8-3)

COMPANY NAME: Merced Power, LLC	FACILITY ID: N - 4607
1. Type of Organization: <input type="checkbox"/> Corporation <input checked="" type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Global Ampersand, LLC	
3. Agent to the Owner: David Kandolha	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:



Signature of Responsible Official

David Kandolha

Name of Responsible Official (please print)

Manager

Title of Responsible Official (please print)

June 26, 2013

Date

ATTACHMENT E

Previous Title V Operating Permit No.'s
(N-4607-7-1 and '-8-3)

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-4607-7-1

EXPIRATION DATE: 10/31/2016

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-4607-8-3

EXPIRATION DATE: 10/31/2016

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 WITH AN AUTOMATED AMMONIA INJECTION 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 Rule 2201] 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 Rule 2201] Federally Enforceable Through Title V Permit
4. The differential pressure gauge reading range shall be maintained between 2" and 8.5" water column. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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] Federally Enforceable Through Title V Permit
9. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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] Federally Enforceable Through Title V Permit
11. No later than 30 days following restart of the facility, the applicant shall install, maintain, and operate an automated ammonia injection system in the selective non-catalytic reduction (SNCR) system. The automated mode may be overridden by the facility operator as necessary to maintain compliance with the emission limits listed within this permit. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-cv-00241-LJO-SMS, Section V.13.b, issued February 14, 2011] Federally Enforceable Through Title V Permit
12. No later than 90 days following restart of the facility, the applicant shall install, maintain, and operate a stack gas flow monitoring system. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-cv-00241-LJO-SMS, Section V.13.a, issued February 14, 2011] 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.

13. The permittee shall install, maintain, and operate a continuous emissions monitoring system (CEMS) to measure stack gas NO_x, SO_x, CO, and O₂ concentrations and mass emission rates 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] Federally Enforceable Through Title V Permit
14. 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, and 40 CFR 64] Federally Enforceable Through Title V Permit
15. 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
16. 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
17. 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
18. 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
19. 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
20. Within 90 days following restart of the facility, the CEM system shall be operated and maintained in accordance with the operation and maintenance procedures identified in the continuous emission monitoring system quality assurance/quality control plan. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-cv-00241-LJO-SMS, Section V.13.c, issued February 14, 2011] Federally Enforceable Through Title V Permit
21. The plant shall only be fueled by biomass materials listed in the following conditions. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
22. 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] Federally Enforceable Through Title V Permit
23. 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] Federally Enforceable Through Title V Permit
24. 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] 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. 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] Federally Enforceable Through Title V Permit
26. 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] Federally Enforceable Through Title V Permit
27. 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] Federally Enforceable Through Title V Permit
28. "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
29. Emissions from the fluidized bed combustor unit, except during periods of startup and shutdown, shall not exceed any of the following limits: NO_x - 14.8 lb/hr or 0.08 lb/MMBtu; SO_x - 6.48 lb/hr or 0.035 lb/MMBtu; PM₁₀ - 7.40 lb/hr or 0.04 lb/MMBtu; CO - 10.55 lb/hr or 72 ppmv @ 3% O₂ (equivalent to 0.057 lb/MMBtu); and VOC - 0.93 lb/hr or 0.005 lb/MMBtu. NO_x (as NO₂) and CO emission limits are based on 24 hour rolling averages. SO_x emission limits are based on 3 hour rolling averages. [District Rules 2201, 4352, and 4801]
30. The ammonia (NH₃) emissions shall not exceed 85 ppmv @ 3% O₂ (equivalent to 0.041 lb/MMBtu) over a 24 hour rolling average. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
31. Emissions from the auxiliary burner shall not exceed any of the following limits: NO_x - 0.202 lb/MMBtu; SO_x - 0.005 lb/MMBtu; PM₁₀ - 0.006 lb/MMBtu; CO - 0.038 lb/MMBtu; and VOC - 0.003 lb/MMBtu. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
32. 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_x, CO, and O₂ 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
33. Source testing to measure the NO_x, SO_x, PM₁₀, CO, VOC, and NH₃ emission rates (lb/hr and lb/MMBtu or ppmvd @ 3% O₂) for the fluidized bubbling bed combustor shall be conducted at least once every twelve months. [District Rules 1081 and 4352] Federally Enforceable Through Title V Permit
34. 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
35. 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

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

36. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100; NO_x (lb/MMBtu) - EPA Method 19; SO_x - EPA Method 6 or ARB Method 100; PM₁₀ - EPA Method 5 (front half and back half) or 201 and 202a; CO (ppmv) - EPA Method 10 or ARB Method 100; CO₂ - 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
37. 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] Federally Enforceable Through Title V Permit
38. 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] Federally Enforceable Through Title V Permit
39. If quarterly actual NO_x 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_x using the following formula: $Pq = x * [\sum_{j=1}^n (B_j) * (EF_j) * (HBF_j) * (QDF_{jq})]$ where: Pq= Pollutant offset credit in lb/qtr = sum of NO_x emissions from ag waste credit < 15 miles + NO_x 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_{jq} = Quarterly Distribution Factor - fraction of burning of biomass (j) which occurs in calendar quarter (q). [District Rule 2201] Federally Enforceable Through Title V Permit
40. 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
41. 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] Federally Enforceable Through Title V Permit
42. 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_x) 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] Federally Enforceable Through Title V Permit
43. 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] Federally Enforceable Through Title V Permit
44. 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] Federally Enforceable Through Title V Permit

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45. Quarterly report of agricultural waste eliminated from open field burning (to offset NO_x 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] Federally Enforceable Through Title V Permit
46. 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] Federally Enforceable Through Title V Permit
47. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
48. 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
49. 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
50. 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
51. 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
52. 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
53. 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
54. 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
55. The owner or operator shall maintain records of opacity. [40 CFR 60.49b(f) and 40 CFR 64] Federally Enforceable Through Title V Permit

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56. The owner or operator shall submit deviation reports to report any opacity exceedance that occurred during the reporting period. [40 CFR 60.49b(h) and 40 CFR 64] Federally Enforceable Through Title V Permit
57. 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
58. The reporting period for the reports required is each 6 month period. All reports shall be submitted to the San Joaquin Valley Air Pollution Control District and shall be postmarked by the 30th of the end of the reporting period. The owner or operator shall submit excess emission reports for any excess emissions that occurred during the reporting period. [40 CFR 60.49b(w)] Federally Enforceable Through Title V Permit
59. 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] Federally Enforceable Through Title V Permit
60. 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] Federally Enforceable Through Title V Permit
61. 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] Federally Enforceable Through Title V Permit
62. 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] Federally Enforceable Through Title V Permit
63. 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] Federally Enforceable Through Title V Permit
64. 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] Federally Enforceable Through Title V Permit
65. 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] Federally Enforceable Through Title V Permit

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