



**JUN 06 2016**

Wade Ingram  
Liberty Packing Co - The Morning Star Co  
12045 S Ingomar Grade Rd  
Los Banos, CA 93635-9796

**RE: Final - Authority to Construct / Certificate of Conformity (Significant Modification)**  
**Facility Number: N-1399**  
**Project Number: N-1151578**

Dear Mr. Ingram:

The Air Pollution Control Officer has issued the Authority to Construct permits to Liberty Packing Co - The Morning Star Co for replacing the existing Continuous Emission Monitoring System (CEMS) with a Predictive Emissions Monitoring System (PEMS) and correcting the heat input rating for two existing boilers, at 12045 S Ingomar Grade Road, Los Banos. Enclosed are the Authority to Construct permits and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue the Authority to Construct permits was published on September 2, 2015. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on August 28, 2015. All comments received following the District's preliminary decision on this project were considered.

Comments received by the District during the public notice period resulted in additional monitoring requirements, and conditions for PEMS training being added to the ATC. These changes were minor and did not trigger additional public notification requirements, nor did they have any impact upon the Best Available Control Technology determination or on the amount of offsets required for project approval.

Also enclosed is an invoice for the engineering evaluation fees pursuant to District Rule 3010. Please remit the amount owed, along with a copy of the attached invoice, within 60 days.

Prior to operating with the modifications authorized by the Authority to Construct, you must submit an application to modify the Title V permit as an administrative amendment in accordance with District Rule 2520, Section 11.5. Application forms have been enclosed for your use. These forms may also be found on the District's website at [www.valleyair.org](http://www.valleyair.org).

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

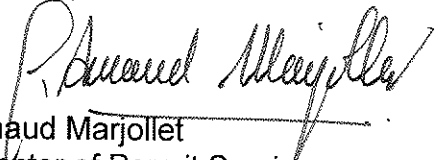
**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

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

Mr. Ingram  
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Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Errol Villegas at (559) 230-6000.

Sincerely,

A handwritten signature in black ink, appearing to read "Arnaud Marjollet". The signature is written in a cursive style with a horizontal line underneath the name.

Arnaud Marjollet  
Director of Permit Services

AM:ao

Enclosures

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



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-1399-17-6

**ISSUANCE DATE:** 05/31/2016

**LEGAL OWNER OR OPERATOR:** LIBERTY PACKING CO - THE MORNING STAR CO

**MAILING ADDRESS:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**LOCATION:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 260 MMBTU/HR NEBRASKA MODEL N2S-8/S-100-ECON NATURAL GAS-FIRED BOILER WITH A TODD DRMB ULTRA LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION (BOILER NO. 1): CORRECT BURNER RATING TO 263 MMBTU/HR, REMOVE AND REPLACE CONTINUOUS EMISSION MONITORING SYSTEM WITH PREDICTIVE EMISSIONS MONITORING SYSTEM


## CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct N-1399-17-5 shall be implemented prior to or simultaneously to the implementation of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100] Federally Enforceable Through Title V Permit
5. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100] 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



Arnaud Marjollet, Director of Permit Services

N-1399-17-6 : May 31 2016 9:24AM - OGDENA : Joint Inspection NOT Required

6. The facility-wide NO<sub>x</sub> emissions shall not exceed 33,705 pounds during any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
8. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
10. The unit shall only be fired on PUC-quality natural gas with a sulfur content of no greater than 1.0 grains (gr) of sulfur per 100 standard cubic feet (scf) of natural gas. [District Rules 2201 and 4320, 40 CFR 60.42b9k)(1)(2)] Federally Enforceable Through Title V Permit
11. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in this unit shall be installed, utilized and maintained. [District Rule 2201, 40 CFR 60.49b(d)(1)] Federally Enforceable Through Title V Permit
12. Heat input to this unit shall not exceed either of the following: 260 MMBtu/hr and 1,059,019 MMBtu during any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During start-up or shutdown, the emissions control system (i.e. FGR system) shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
14. The startup duration shall not exceed 2.0 hours per day. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
15. The shutdown duration shall not exceed 1.0 hour per day. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
16. The total duration of startups and shutdowns shall not exceed 41 hours during any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
17. SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
18. PM<sub>10</sub> emissions shall not exceed 0.0074 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
19. VOC emissions shall not exceed 10 ppmvd @ 3% O<sub>2</sub> or 0.0042 lb/MMBtu, referenced as methane. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The owner or operator may install, certify, maintain, operate and quality-assure a Predictive Emission Monitoring System (PEMS) which continuously predicts and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. Predictive emissions monitor(s) shall be capable of predicting emissions during normal operating conditions, and during startups and shutdowns provided the PEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of PEMS cannot be demonstrated during startup conditions, PEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this permit. [District Rules 2201 and 4320, and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
21. Prior to disconnecting the CEMs, the PEMS must pass a Relative Accuracy (RA) Test to be acceptable for use in demonstrating compliance with this permit. [District Rules 2201 and 4703 and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
22. All conditions included in this permit pertaining to operation of the CEMS shall be kept until installation, and demonstration that all applicable PEMS requirements of PS-16 have been met including a successful initial RATA test. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. Upon installation of PEMS equipment, emissions shall not exceed 7 ppmv NO<sub>x</sub> or 50 ppmv CO during initial PEMS training and testing for greater than 10 hours in any one day or a total of 16 hours. Initial PEMS training and testing period shall not exceed 30 consecutive days. [District Rule 2201]
24. During startup and shutdown and initial PEMS training, NO<sub>x</sub> emissions shall not exceed 30.0 ppmvd @ 3% O<sub>2</sub> or 0.036 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
25. During startup and shutdown and initial PEMS training, CO emissions shall not exceed 200 ppmvd @ 3% O<sub>2</sub> or 0.148 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
26. Except during startup and shutdown and initial 30-day PEMS training, NO<sub>x</sub> emissions shall not exceed 7 ppmvd @ 3% O<sub>2</sub> or 0.008 lb/MMBtu, referenced as NO<sub>2</sub> over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
27. Except during startup and shutdown and initial 30-day PEMS training, CO emissions shall not exceed 50 ppmvd @ 3% O<sub>2</sub> or 0.037 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
28. Permittee shall monitor and record the stack concentration of NO<sub>x</sub> and CO continuously using CEMS during PEMS training period. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
29. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. The sampling ports shall be located in accordance with the CARB 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
30. The initial PEMS training and testing and source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
31. Permittee shall perform a relative accuracy audit (RAA) consisting of at least three 30-minute portable analyzer or RM (reference method) determinations each quarter a relative accuracy test audit (RATA) is not performed as specified in Section 9.3 of EPA Performance Specification 16. The average of the 3 portable analyzer (RM) determinations must not differ from the simultaneous PEMS average value by more than 2 ppmv for pollutant PEMS and 1% absolute for diluent PEMS. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
32. PEMS relative accuracy for NO<sub>x</sub> and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). [District Rule 2201] Federally Enforceable Through Title V Permit
33. Source testing to measure NO<sub>x</sub> and CO emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every 12 months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
34. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
35. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
36. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

37. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320] Federally Enforceable Through Title V Permit
38. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
39. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
40. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
41. 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
42. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. The portable analyzer results will be compared to the PEMS data. The average emissions value measured with calibrated portable analyzer must not differ from the simultaneous PEMS average emissions value by more than 2 ppmv for pollutant PEMS and 1% absolute for diluent PEMS. [40 CFR 60 PS16] Federally Enforceable Through Title V Permit
43. The permittee shall maintain records of the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, the measured NO<sub>2</sub> and CO concentrations corrected to 3% O<sub>2</sub>, and the O<sub>2</sub> concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be maintained, retained on-site for a period of at least five years and made available for District inspection upon request [40 CFR 60 PS16] Federally Enforceable Through Title V Permit
44. Details on the design of the PEMS (PEMS protocol) as specified in PS-16, Section 6.1 must be submitted and approved by the District 60 days prior to testing the PEMS for certification. This information must include number of input parameters, parameter operating envelope, source specific operating conditions affecting PEMS output, ambient conditions affecting PEMS operation, PEMS principal of operation including physical assumptions and mathematical manipulations supporting its operation, specific details on the testing to be performed for the PEMS training, data recorder scale, sensors to be used and sensor evaluation system, plan to detect and notify operator of parameter envelope exceedences, and recordkeeping. If the boiler is operated beyond the PEMS operating envelopes at any time after the certification test, the data generated during this condition will not be acceptable for use in demonstrating compliance with applicable requirements [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
45. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the PEMS. [40 CFR 60.48b(e)] Federally Enforceable Through Title V Permit
46. The PEMS shall be operated and data recorded during all periods of operation except for PEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)] Federally Enforceable Through Title V Permit
47. The PEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

48. Permittee shall perform Relative Accuracy Test Audits (RATA) and Relative Accuracy Audit (RAA). RATA must not exceed +/- 20 percent absolute mean difference or 10 percent of applicable standard. For diluent PEMS, an alternative criterion of  $\pm 1$  percent absolute difference between the PEMS and RM may be used if less stringent. The RAA shall consist of at least three 30-minute portable analyzer or RM (reference method) determinations each quarter a relative accuracy test audit (RATA) is not performed as specified in Section 9.3 of EPA Performance Specification 16. An audit (RAA) is not required for a calendar quarter if the unit does not operate during that calendar quarter. The average of the 3 portable analyzer (RM) determinations must not differ from the simultaneous PEMS average value by more than 10 percent of the analyzer or RM value for concentrations greater than 100 ppmv or 20% for concentrations between 100 and 20 ppmv or the test is failed. For measurements at 20 ppmv or less, this difference shall not exceed 2 ppmv for pollutant PEMS and 1% absolute for diluent PEMS.. [District Rules 1080, 2201, 4305, 4306, 4320 and 40 CFR Subpart Db, 40 CFR Part 64] Federally Enforceable Through Title V Permit
49. The NO<sub>x</sub>, CO and O<sub>2</sub> PEMS shall meet the requirements in 40 CFR 60, Appendix B, Performance Specification 16 (PS 16) or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
50. The PEMS sensor evaluation system shall check the integrity of each input at least once per day. [District Rule 1080] Federally Enforceable Through Title V Permit
51. Initial PEMS relative accuracy (RA) testing (RATA) must be conducted as specified in PS-16, Section 8.2 and must include 9 test runs (RM, reference method) at each of low, medium, and high operating levels (3-level RA test). RA calculations using RM and PEMS data from the 3-level tests must be done using equations specified in PS-16, Section 12.2. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
52. If PEMS fails to pass a quarterly RAA or yearly RATA test, or if changes are made that could result in a significant change in the emissions rate (e.g. turbine aging, process modification, new process operating modes, or changes to emission controls) the PEMS must be recertified by the earlier of 30 operating days or 180 calendar days after the failed RATA or after the change that has caused a significant change in emission rate as specified in PS-16, Section 8.5. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
53. The owner/operator shall perform an initial RATA for NO<sub>x</sub>, CO and O<sub>2</sub> within 60 days of installation of the PEMS. After the initial startup RATA, the facility shall conduct a RATA at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the predictive emission monitor equipment in accordance with the procedures and guidance specified in as specified by 40 CFR Part 60, Appendix B Performance Specification 16. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
54. PEMS must be audited at least once each calendar quarter, by relative accuracy audits (RAA) except during quarters in which a RATA is performed, in accordance with EPA guidelines. An audit (RAA) is not required for a calendar quarter if the unit does not operate during that calendar quarter. Audit reports shall be submitted along with quarterly compliance reports to the District [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
55. If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, the permittee may elect to perform a single mid-year RAA in the second year in place of the quarterly RAAs as specified in Section 9.3 of EPA Performance Specification 16. If a quarterly audit is missed due to the unit not operating, the audit shall be conducted in the next operating quarter. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA. When such a failure occurs, the operator must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
56. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
57. The PEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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58. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the PEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
59. The facility shall install and maintain equipment, facilities, and systems compatible with the District's PEMS data polling software system and shall make PEMS data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
60. Upon notice by the District that the facility's PEMS 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 PEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
61. The permittee shall maintain the following records for PEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which PEMS was inoperative. [District Rule 1080] Federally Enforceable Through Title V Permit
62. The owner or operator shall submit the performance test data and the performance evaluation of the PEMS using performance specification PS16 for PEMS certification in 40 CFR Part 60. [40 CFR 60] Federally Enforceable Through Title V Permit
63. An O&M manual containing detailed system requirements shall be prepared and submitted for approval along with the monitoring plan required under 40 CFR 60.49b(c). [40 CFR 60.49b(c)] Federally Enforceable Through Title V Permit
64. For 40 CFR Part 60 Subpart Db purpose, NO<sub>x</sub> emissions shall not exceed 0.1 lb/MMBtu for low heat release units (70,000 Btu/hr-ft<sup>3</sup> of furnace volume or less) and 0.2 lb/MMBtu for high heat release units (greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume) on a 30-day rolling average basis. NO<sub>x</sub> standard shall apply at all times including periods of startup, shutdown, or malfunction. The permittee shall maintain record of the furnace volume, which is defined as the volume bounded by the front furnace wall where the burner is located, the furnace side waterfall, and extending to the level just below or in front of the first row of convection pass tubes. [40 CFR 60.44b(a), 60.44b(h), 60.44b(i)] Federally Enforceable Through Title V Permit
65. For the initial compliance test under 40 CFR Part 60 Subpart Db, NO<sub>x</sub> emissions shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate shall be used to determine compliance with the NO<sub>x</sub> emission standard under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. [40 CFR 60.46b(e)(1)] Federally Enforceable Through Title V Permit
66. Following the initial compliance test, the operator shall determine compliance with the NO<sub>x</sub> standard under 40 CFR 60.44 (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)) on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(3)] Federally Enforceable Through Title V Permit
67. The 1-hour average NO<sub>x</sub> emission rates measured by the continuous NO<sub>x</sub> monitor shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). [40 CFR 60.48b(d)] Federally Enforceable Through Title V Permit
68. When NO<sub>x</sub> data are not obtained because of PEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)] Federally Enforceable Through Title V Permit
69. The owner or operator shall maintain records of the amount of fuel combusted during each day in this unit. [District Rule 2201 and 40 CFR 60.49b(d)(1)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE



70. The owner or operator shall maintain records of the annual capacity factor on a monthly basis. The annual capacity factor shall be 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
71. The owner or operator shall either obtain fuel receipts (such as a valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets definition of natural gas (as defined in 40 CFR 60.41b) and the applicable sulfur limit (i.e., 1.0 gr-S/100 scf), or demonstrate that the combusted gas is provided from a PUC or FERC regulated source, or monitor the sulfur content within 60 days of initial startup and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 4320, 40 CFR 60.45b(j), 60.49b(r)(2)] Federally Enforceable Through Title V Permit
72. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NOx and CO emission rates (expressed as NO2) (ppmvd @ 3% O2 and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NOx emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NOx and CO emission rates are in excess of the NOx and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the PEMS; (10) Description of any modifications to the PEMS that could affect the ability of the PEMS to comply with Performance Specification 16; (11) Results of daily PEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)] Federally Enforceable Through Title V Permit
73. The owner or operator of an affected facility may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. 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 permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 40 CFR 60.49b(v)] Federally Enforceable Through Title V Permit
74. The owner or operator shall keep records of the date, duration of each startup (hours), and duration of each shutdown (hours). [District Rule 2201] Federally Enforceable Through Title V Permit
75. The owner or operator shall keep records of the total duration of startups and shutdowns (hours) on a rolling 12 consecutive month total basis, and shall be updated at least monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
76. The owner or operator shall keep record of the facility-wide NOx emissions (in pounds). The record shall be on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

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77. The owner or operator shall keep record of the annual heat input to this unit (in MMBtu). The record shall be kept on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201] Federally Enforceable Through Title V Permit
78. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)] Federally Enforceable Through Title V Permit
79. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. CEMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.48b(1)] Federally Enforceable Through Title V Permit
80. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the CEMS. [40 CFR 60.48b(e)] Federally Enforceable Through Title V Permit
81. The CEMS shall be operated and data recorded during all periods of operation except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)] Federally Enforceable Through Title V Permit
82. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
83. The NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2) for NO<sub>x</sub>, Appendix B PS 4A for CO, and Appendix B PS 3 for O<sub>2</sub> or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
84. In accordance with 40 CFR Part 60, Appendix F, 5.1, NO<sub>x</sub>, CO and O<sub>2</sub> CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
85. The owner/operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F, 5.1.1, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CEMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
86. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
87. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
88. The facility 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] Federally Enforceable Through Title V Permit
89. Upon notice by the District that the facility's CEMS 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] Federally Enforceable Through Title V Permit

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90. The permittee shall maintain the following records for CEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CEMS was inoperative. [District Rule 1080] Federally Enforceable Through Title V Permit
91. The owner or operator shall submit the performance test data and the performance evaluation of the CEMS using performance specification 2 (PS 2) for NO<sub>x</sub>, PS 4A for CO, and PS3 for O<sub>2</sub> in 40 CFR Part 60 Appendix B. [40 CFR 60.49b(b)] Federally Enforceable Through Title V Permit
92. When NO<sub>x</sub> data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)] Federally Enforceable Through Title V Permit
93. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NO<sub>x</sub> and CO emission rates (expressed as NO<sub>2</sub>) (ppmvd @ 3% O<sub>2</sub> and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NO<sub>x</sub> emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NO<sub>x</sub> and CO emission rates are in excess of the NO<sub>x</sub> and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the CEMS; (10) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 or 4A; (11) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-1399-24-2

**ISSUANCE DATE:** 05/31/2016

**LEGAL OWNER OR OPERATOR:** LIBERTY PACKING CO - THE MORNING STAR CO

**MAILING ADDRESS:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**LOCATION:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 471 MMBTU/HR CLEAVER BROOKS MODEL NB-ED-110 BOILER EQUIPPED WITH A COEN MODEL VARIFLAME LOW NOX BURNER INDUCED FLUE GAS RECIRCULATION SERVED BY A CADASTACK (OR OTHER MANUFACTURER) SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM: CORRECT BURNER RATING TO 458.5 MMBTU/HR, REMOVE AND REPLACE CONTINUOUS EMISSION MONITORING SYSTEM WITH PREDICTIVE EMISSIONS MONITORING SYSTEM

## CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct N-1399-24-1 shall be implemented prior to or simultaneously to the implementation of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100] Federally Enforceable Through Title V Permit
5. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100] 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



Arnaud Marjollet, Director of Permit Services

N-1399-24-2 May 31 2016 9:24AM - OGDENA : Joint Inspection NOT Required

6. The facility-wide NOx emissions shall not exceed 33,705 pounds during any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
8. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
10. The unit shall only be fired on PUC-quality natural gas with a sulfur content of no greater than 1.0 grains (gr) of sulfur per 100 standard cubic feet (scf) of natural gas. [District Rules 2201 and 4320, 40 CFR 60.42b9k)(1)(2)] Federally Enforceable Through Title V Permit
11. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in this unit shall be installed, utilized and maintained. [District Rule 2201, 40 CFR 60.49b(d)(1)] Federally Enforceable Through Title V Permit
12. Heat input to this unit shall not exceed 1,271,700 MMBtu during any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
14. The startup duration shall not exceed 4.0 hours per day. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
15. The shutdown duration shall not exceed 1.0 hour per day. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
16. The total duration of startups and shutdowns shall not exceed 41 hours during any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Upon installation of PEMS equipment, emissions shall not exceed 5 ppmv NOx or 50 ppmv CO during initial PEMS training and testing for greater than 10 hours in any one day or a total of 16 hours. Initial PEMS training and testing period shall not exceed 30 consecutive days. [District Rule 2201]
18. During startup and shutdown and initial 30-day PEMS training, NOx emissions shall not exceed 30.0 ppmvd @ 3% O2 or 0.036 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
19. During startup and shutdown and initial 30-day PEMS training, CO emissions shall not exceed 200 ppmvd @ 3% O2 or 0.148 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
20. Except during startup, shutdown and initial PEMS training, NOx emissions shall not exceed 5 ppmvd @ 3% O2 or 0.0062 lb/MMBtu, referenced as NO2 over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
21. Except during startup, shutdown and initial PEMS training, CO emissions shall not exceed 50 ppmvd @ 3% O2 or 0.037 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
22. Permittee shall monitor and record the stack concentration of NOx and CO continuously using CEMS during PEMS training period. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
23. SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. PM10 emissions shall not exceed 0.003 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

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25. VOC emissions shall not exceed 5 ppmvd @ 3% O<sub>2</sub> or 0.002 lb/MMBtu, referenced as methane. [District Rule 2201] Federally Enforceable Through Title V Permit
26. NH<sub>3</sub> emissions shall not exceed 10 ppmvd @ 3% O<sub>2</sub>. [District Rule 2201] Federally Enforceable Through Title V Permit
27. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. The portable analyzer results will be compared to the PEMS data. The average emissions value measured with calibrated portable analyzer must not differ from the simultaneous PEMS average emissions value by more than 2 ppmv for pollutant PEMS and 1% absolute for diluent PEMS. [40 CFR 60 PS16] Federally Enforceable Through Title V Permit
28. PEMS relative accuracy for NO<sub>x</sub> and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). [District Rule 2201] Federally Enforceable Through Title V Permit
29. The permittee shall maintain records of the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, the measured NO<sub>2</sub> and CO concentrations corrected to 3% O<sub>2</sub>, and the O<sub>2</sub> concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be maintained, retained on-site for a period of at least five years and made available for District inspection upon request [40 CFR 60 PS16] Federally Enforceable Through Title V Permit
30. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. The sampling ports shall be located in accordance with the CARB 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
31. The initial PEMS training and testing and source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
32. Source testing to measure NO<sub>x</sub>, CO and NH<sub>3</sub> emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every 12 months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
33. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
34. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
35. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
36. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320] Federally Enforceable Through Title V Permit
37. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 2201] Federally Enforceable Through Title V Permit
38. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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39. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
40. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
41. 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
42. The owner or operator may install, certify, maintain, operate and quality-assure a Predictive Emission Monitoring System (PEMS) which continuously predicts and records the exhaust gas NOX, CO and O2 concentrations. Predictive emissions monitor(s) shall be capable of predicting emissions during normal operating conditions, and during startups and shutdowns provided the PEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of PEMS cannot be demonstrated during startup conditions, PEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this permit. [District Rules 2201, and 4320, 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
43. All conditions included in this permit pertaining to operation of the CEMS shall be kept until installation, and demonstration that all applicable PEMS requirements of PS-16 have been met including a successful initial RATA test. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
44. Prior to disconnecting the CEMs, the PEMS must pass a Relative Accuracy (RA) Test to be acceptable for use in demonstrating compliance with this permit. [District Rules 2201 and 4703 and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
45. Details on the design of the PEMS (PEMS protocol) as specified in PS-16, Section 6.1 must be submitted and approved by the District 60 days prior to testing the PEMS for certification. This information must include number of input parameters, parameter operating envelope, source specific operating conditions affecting PEMS output, ambient conditions affecting PEMS operation, PEMS principal of operation including physical assumptions and mathematical manipulations supporting its operation, specific details on the testing to be performed for the PEMS training, data recorder scale, sensors to be used and sensor evaluation system, plan to detect and notify operator of parameter envelope exceedences, and recordkeeping. If the boiler is operated beyond the PEMS operating envelopes at any time after the certification test, the data generated during this condition will not be acceptable for use in demonstrating compliance with applicable requirements [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
46. The owner or operator shall monitor and record the stack concentration of NH3 at least once during each month in which source testing is not performed. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit(s) unless it has been performed within the last month. [District Rule 2201] Federally Enforceable Through Title V Permit
47. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the PEMS. [40 CFR 60.48b(e)] Federally Enforceable Through Title V Permit
48. The PEMS shall be operated and data recorded during all periods of operation except for PEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)] Federally Enforceable Through Title V Permit
49. The PEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
50. The NOx, CO and O2 PEMS shall meet the requirements in 40 CFR 60, Appendix B, Performance Specification 16 (PS 16) or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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51. The PEMS sensor evaluation system shall check the integrity of each input at least once per day. [District Rule 1080] Federally Enforceable Through Title V Permit
52. The owner/operator shall perform an initial RATA for NO<sub>x</sub>, CO and O<sub>2</sub> within 60 days of installation of the PEMS. After the initial startup RATA, the facility shall conduct a RATA at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the predictive emission monitor equipment in accordance with the procedures and guidance specified in as specified by 40 CFR Part 60, Appendix B Performance Specification 16. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
53. Initial PEMS relative accuracy (RA) testing (RATA) must be conducted as specified in PS-16, Section 8.2 and must include 9 test runs (RM, reference method) at each of low, medium, and high operating levels (3-level RA test). RA calculations using RM and PEMS data from the 3-level tests must be done using equations specified in PS-16, Section 12.2. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
54. PEMS must be audited at least once each calendar quarter, by relative accuracy audits (RAA) except during quarters in which a RATA is performed, in accordance with EPA guidelines. An audit (RAA) is not required for a calendar quarter if the unit does not operate during that calendar quarter. Audit reports shall be submitted along with quarterly compliance reports to the District [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
55. Permittee shall perform Relative Accuracy Test Audits (RATA) and Relative Accuracy Audit (RAA). RATA must not exceed +/- 20 percent absolute mean difference or 10 percent of applicable standard. For diluent PEMS, an alternative criterion of ±1 percent absolute difference between the PEMS and RM may be used if less stringent. The RAA shall consist of at least three 30-minute portable analyzer or RM (reference method) determinations each quarter a relative accuracy test audit (RATA) is not performed as specified in Section 9.3 of EPA Performance Specification 16. An audit (RAA) is not required for a calendar quarter if the unit does not operate during that calendar quarter. The average of the 3 portable analyzer (RM) determinations must not differ from the simultaneous PEMS average value by more than 2 ppmv for pollutant PEMS and 1% absolute for diluent PEMS. [District Rules 1080, 2201, 4305, 4306, 4320 and 40 CFR Subpart Db, 40 CFR Part 64] Federally Enforceable Through Title V Permit
56. If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, the permittee may elect to perform a single mid-year RAA in the second year in place of the quarterly RAAs as specified in Section 9.3 of EPA Performance Specification 16. If a quarterly audit is missed due to the unit not operating, the audit shall be conducted in the next operating quarter. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA. When such a failure occurs, the operator must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
57. If PEMS fails to pass a quarterly RAA or yearly RATA test, or if changes are made that could result in a significant change in the emissions rate (e.g. turbine aging, process modification, new process operating modes, or changes to emission controls) the PEMS must be recertified by the earlier of 30 operating days or 180 calendar days after the failed RATA or after the change that has caused a significant change in emission rate as specified in PS-16, Section 8.5. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
58. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
59. The PEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
60. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the PEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

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61. The facility shall install and maintain equipment, facilities, and systems compatible with the District's PEMS data polling software system and shall make PEMS data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
62. Upon notice by the District that the facility's PEMS 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 PEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
63. The permittee shall maintain the following records for PEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which PEMS was inoperative. [District Rule 1080] Federally Enforceable Through Title V Permit
64. The owner or operator shall submit the performance test data and the performance evaluation of the PEMS using performance specification PS16 for PEMS certification in 40 CFR Part 60. [40 CFR 60.49b(b)] Federally Enforceable Through Title V Permit
65. An O&M manual containing detailed system requirements shall be prepared and submitted for approval along with the monitoring plan required under 40 CFR 60.49b(c). [40 CFR 60.49b(c)] Federally Enforceable Through Title V Permit
66. For 40 CFR Part 60 Subpart Db purpose, NO<sub>x</sub> emissions shall not exceed 0.1 lb/MMBtu for low heat release units (70,000 Btu/hr-ft<sup>3</sup> of furnace volume or less) and 0.2 lb/MMBtu for high heat release units (greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume) on a 30-day rolling average basis. NO<sub>x</sub> standard shall apply at all times including periods of startup, shutdown, or malfunction. The permittee shall maintain record of the furnace volume, which is defined as the volume bounded by the front furnace wall where the burner is located, the furnace side waterfall, and extending to the level just below or in front of the first row of convection pass tubes. [40 CFR 60.44b(a), 60.44b(h), 60.44b(i)] Federally Enforceable Through Title V Permit
67. For the initial compliance test under 40 CFR Part 60 Subpart Db, NO<sub>x</sub> emissions shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate shall be used to determine compliance with the NO<sub>x</sub> emission standard under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. [40 CFR 60.46b(e)(1)] Federally Enforceable Through Title V Permit
68. Following the initial compliance test, the operator shall determine compliance with the NO<sub>x</sub> standard under 40 CFR 60.44 (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)) on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(3)] Federally Enforceable Through Title V Permit
69. The 1-hour average NO<sub>x</sub> emission rates measured by the continuous NO<sub>x</sub> monitor shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). [40 CFR 60.48b(d)] Federally Enforceable Through Title V Permit
70. When NO<sub>x</sub> data are not obtained because of PEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)] Federally Enforceable Through Title V Permit
71. The owner or operator shall maintain records of the amount of fuel combusted during each day in this unit. [District Rule 2201 and 40 CFR 60.49b(d)(1)] Federally Enforceable Through Title V Permit
72. The owner or operator shall maintain records of the annual capacity factor on a monthly basis. The annual capacity factor shall be 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

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73. The owner or operator shall either obtain fuel receipts (such as a valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets definition of natural gas (as defined in 40 CFR 60.41b) and the applicable sulfur limit (i.e., 1.0 gr-S/100 scf), or demonstrate that the combusted gas is provided from a PUC or FERC regulated source, or monitor the sulfur content within 60 days of initial startup and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 4320, 40 CFR 60.45b(j), 60.49b(r)(2)] Federally Enforceable Through Title V Permit
74. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NOx and CO emission rates (expressed as NO2) (ppmvd @ 3% O2 and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NOx emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NOx and CO emission rates are in excess of the NOx and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the PEMS; (10) Description of any modifications to the PEMS that could affect the ability of the PEMS to comply with Performance Specification 16; (11) Results of daily PEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)] Federally Enforceable Through Title V Permit
75. The owner or operator of an affected facility may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. 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 permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 40 CFR 60.49b(v)] Federally Enforceable Through Title V Permit
76. The owner or operator shall keep records of the date and time, measured NH<sub>3</sub> concentration, O<sub>2</sub> concentration in percent, and NH<sub>3</sub> concentration corrected to 3% O<sub>2</sub>. [District Rule 2201] Federally Enforceable Through Title V Permit
77. The owner or operator shall keep records of the date, duration of each startup (hours), and duration of each shutdown (hours). [District Rule 2201] Federally Enforceable Through Title V Permit
78. The owner or operator shall keep records of the total duration of startups and shutdowns (hours) on a rolling 12 consecutive month total basis, and shall be updated at least monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
79. The owner or operator shall keep record of the facility-wide NOx emissions (in pounds). The record shall be on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

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80. The owner or operator shall keep record of the annual heat input to this unit (in MMBtu). The record shall be kept on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201] Federally Enforceable Through Title V Permit
81. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)] Federally Enforceable Through Title V Permit
82. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. CEMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.48b(1)] Federally Enforceable Through Title V Permit
83. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the CEMS. [40 CFR 60.48b(e)] Federally Enforceable Through Title V Permit
84. The CEMS shall be operated and data recorded during all periods of operation except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)] Federally Enforceable Through Title V Permit
85. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
86. The NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2) for NO<sub>x</sub>, Appendix B PS 4A for CO, and Appendix B PS 3 for O<sub>2</sub> or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
87. In accordance with 40 CFR Part 60, Appendix F, 5.1, NO<sub>x</sub>, CO and O<sub>2</sub> CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
88. The owner/operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F, 5.1.1, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CEMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
89. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
90. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
91. The facility 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] Federally Enforceable Through Title V Permit
92. Upon notice by the District that the facility's CEMS 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] Federally Enforceable Through Title V Permit

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93. The permittee shall maintain the following records for CEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CEMS was inoperative. [District Rule 1080] Federally Enforceable Through Title V Permit
94. The owner or operator shall submit the performance test data and the performance evaluation of the CEMS using performance specification 2 (PS 2) for NO<sub>x</sub>, PS 4A for CO, and PS3 for O<sub>2</sub> in 40 CFR Part 60 Appendix B. [40 CFR 60.49b(b)] Federally Enforceable Through Title V Permit
95. When NO<sub>x</sub> data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)] Federally Enforceable Through Title V Permit
96. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NO<sub>x</sub> and CO emission rates (expressed as NO<sub>2</sub>) (ppmvd @ 3% O<sub>2</sub> and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NO<sub>x</sub> emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NO<sub>x</sub> and CO emission rates are in excess of the NO<sub>x</sub> and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the CEMS; (10) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 or 4A; (11) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)] Federally Enforceable Through Title V Permit

**San Joaquin Valley Air Pollution Control District**  
**Authority to Construct Application Review**  
Modification to Remove CEMS and Replace with PEMS for Boilers

Facility Name: Liberty Packing CO – The Morning Star CO      Date: May 31, 2016  
Mailing Address: 12045 S Ingomar Grade Rd      Engineer: Andrea Ogden  
Los Banos, CA 93635      Lead Engineer: Jerry Sandhu  
Contact Person: Wade Ingram  
Telephone: (209) 829-5061  
Fax: (209) 826-0100  
E-Mail: [wingram@morningstarco.com](mailto:wingram@morningstarco.com)  
Application #(s): N-1399-17-6 & -24-2  
Project #: N-1151578  
Deemed Complete: May 27, 2015

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**I. Proposal**

The primary business of Liberty Packing CO – The Morning Star CO is the processing of agricultural products. Liberty Packing CO – The Morning Star CO has submitted an Authority to Construct (ATC) application for the following:

- Correct the burner heat input rating of N-1399-17 from 260 MMBtu/hr to 263 MMBtu/hr and unit N-1399-24 from 471 MMBtu/hr to 458.5 MMBtu/hr and replace the continuous emissions monitoring system (CEMS) with predictive emission monitoring (PEMS). Both boilers are subject to 40 CFR Part 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. This Performance Standard allows units rated less than 250 MMBtu/hr to comply with the monitoring requirements by using a PEMS. Both emissions units have a maximum heat input rating greater than 250 MMBtu/hr, however EPA has granted conditional approval (Appendix E) that the boilers can still meet the requirements of the standard even though the units are rated higher than 250 MMBtu/hr.

**Disposition of Outstanding ATCs**

ATC N-1399-17-5 and N-1399-24-1 serve as the base document for this project as requested by the applicant.

Liberty Packing CO – The Morning Star CO received their Title V Permit on August 31, 2013. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Liberty Packing CO – The Morning Star CO must apply to administratively amend their Title V permit.

## II. Applicable Rules

Rule 1080	Stack Monitoring (12/17/92)
Rule 1081	Source Sampling (12/16/93)
Rule 1100	Equipment Breakdown (12/17/92)
Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)
Rule 4304	Equipment Tuning Procedure for Boilers, Steam Generators and Process Heaters (10/19/95)
Rule 4305	Boilers, Steam Generators and Process Heaters – Phase II (8/21/03)
Rule 4306	Boilers, Steam Generators and Process Heaters – Phase III (10/16/08)
Rule 4320	Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr (10/16/08)
Rule 4351	Boilers, Steam Generators and Process Heaters – Phase 1 (8/21/03)
Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)  
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

## III. Project Location

The facility is located at 12045 S Ingomar Grade Rd in Los Banos, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

## IV. Process Description

Liberty Packing CO – The Morning Star CO operates a seasonal tomato processing plant. The plant utilizes steam from these boilers for the processing of the tomatoes.

## V. Equipment Listing

### Pre-Project Equipment Description:

N-1399-17-5: 260 MMBTU/HR NATURAL GAS FIRED NEBRASKA MODEL N2S-8/S-100-ECON BOILER WITH A TODD DRMB ULTRA LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION AND CONTINUOUS EMISSION

MONITORING SYSTEM (CEMS) FOR MEASURING NO<sub>x</sub>, CO AND O<sub>2</sub> CONCENTRATIONS

N-1399-24-1: 471 MMBTU/HR CLEAVER BROOKS MODEL NB-ED-110 BOILER EQUIPPED WITH A COEN MODEL VARIFLAME LOW NO<sub>x</sub> BURNER INDUCED FLUE GAS RECIRCULATION SERVED BY A CADASTACK (OR OTHER MANUFACTURER) SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM

Proposed Modification:

Correct hourly burner heat input rate and remove and replace continuous emissions monitoring system (CEMS) with predictive emissions monitoring system (PEMS).

N-1399-17-6: MODIFICATION OF 260 MMBTU/HR NEBRASKA MODEL N2S-8/S-100-ECON NATURAL GAS-FIRED BOILER WITH A TODD DRMB ULTRA LOW NO<sub>x</sub> BURNER AND INDUCED FLUE GAS RECIRCULATION (BOILER NO. 1); CORRECT BURNER RATING TO 263 MMBTU/HR, REMOVE AND REPLACE CONTINUOUS EMISSION MONITORING SYSTEM WITH PREDICTIVE EMISSIONS MONITORING SYSTEM

N-1399-24-2: MODIFICATION OF 471 MMBTU/HR CLEAVER BROOKS MODEL NB-ED-110 BOILER EQUIPPED WITH A COEN MODEL VARIFLAME LOW NO<sub>x</sub> BURNER INDUCED FLUE GAS RECIRCULATION SERVED BY A CADASTACK (OR OTHER MANUFACTURER) SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM: CORRECT BURNER RATING TO 458.5 MMBTU/HR, REMOVE AND REPLACE CONTINUOUS EMISSION MONITORING SYSTEM WITH PREDICTIVE EMISSIONS MONITORING SYSTEM

Post Project Equipment Description:

N-1399-17-6: 263 MMBTU/HR NEBRASKA MODEL N2S-8/S-100-ECON NATURAL GAS-FIRED BOILER WITH A TODD DRMB ULTRA LOW NO<sub>x</sub> BURNER AND INDUCED FLUE GAS RECIRCULATION WITH PREDICTIVE EMISSION MONITORING SYSTEM (PEMS) (BOILER NO. 1)

N-1399-24-2: 458.5 MMBTU/HR CLEAVER BROOKS MODEL NB-ED-110 BOILER EQUIPPED WITH A COEN MODEL VARIFLAME LOW NO<sub>x</sub> BURNER INDUCED FLUE GAS RECIRCULATION SERVED BY A CADASTACK (OR OTHER MANUFACTURER) SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM AND PREDICTIVE EMISSION MONITORING SYSTEM (PEMS) (BOILER NO. 6)

**VI. Emission Control Technology Evaluation**

Emissions from natural gas-fired boilers include NO<sub>x</sub>, CO, VOC, PM<sub>10</sub>, and SO<sub>x</sub>.

NO<sub>x</sub> is the major pollutant of concern when burning natural gas. NO<sub>x</sub> formation is either due to thermal fixation of atmospheric nitrogen in the combustion air (thermal NO<sub>x</sub>) or due to conversion

of chemically bound nitrogen in the fuel (fuel NO<sub>x</sub>). Due to the low fuel nitrogen content of natural gas, nearly all NO<sub>x</sub> emissions are thermal NO<sub>x</sub>. Formation of thermal NO<sub>x</sub> is affected by four furnace zone factors: (1) nitrogen concentration, (2) oxygen concentration, (3) peak temperature, and (4) time of exposure at peak temperature.

Flue gas recirculation (FGR) reduces NO<sub>x</sub> emissions by recirculating a percentage of the exhaust gas back into the windbox. This reduces the oxygen concentration in the air-fuel mixture and regulates the combustion process, lowering the combustion temperature. The lowered availability of oxygen in conjunction with lowered combustion temperature reduces the formation of NO<sub>x</sub>.

Low-NO<sub>x</sub> burners reduce formation of NO<sub>x</sub> by producing lower flame temperatures (and longer flames) than conventional burners. Conventional burners thoroughly mix all the fuel and air in a single stage just prior to combustion, whereas low-NO<sub>x</sub> burners delay the mixing of fuel and air by introducing the fuel (or sometimes the air) in multiple stages. Generally, in the first combustion stage, the air-fuel mixture is fuel rich. In a fuel rich environment, all the oxygen will be consumed in reactions with the fuel, leaving no excess oxygen available to react with nitrogen to produce thermal NO<sub>x</sub>. In the secondary and tertiary stages, the combustion zone is maintained in a fuel-lean environment. The excess air in these stages helps to reduce the flame temperature so that the reaction between the excess oxygen with nitrogen is minimized.

An SCR system operates as an external control device where flue gases and a reagent, in this case ammonia, are passed through an appropriate catalyst. Ammonia, will be injected upstream of the catalyst where it reacts and reduces NO<sub>x</sub>, over the catalyst bed, to form elemental nitrogen and other by-products. The use of a catalyst typically reduces the NO<sub>x</sub> emissions by up to 90%.

The PEMS is based on a combination of fundamental relationships between excess air (stack O<sub>2</sub>) and FGR for either premixed or diffusion flame burners with corrections based on empirical factors. The model uses redundant sensors for the critical parameters, this allows the system to automatically determine critical sensor drift or failure. In the event of a specific sensor response drift, an alarm is given to calibrate the sensor. In the event of a sensor failure, the system automatically switches to the redundant sensor. The following parameters will be used in the model.

- Fuel flow- measured using an orifice meter and burner fuel pressure. Steam and feed water flow are also measured and used as a cross check on the fuel flow.
- Stack O<sub>2</sub> (excess air)
- FGR flow –using FGR damper position feedback and a differential pressure measurement
- Ambient air temperature
- FGR/air mix temperature



- Boiler exhaust temperature to determine when the minimum operating temperature for NH3 injection is achieved (N-1399-24 only)
- NH3 mass flow with redundant meters (N-1399-24 only)

The PEMS model predicts the burner NOx and CO as a function of fuel flow rate, excess air and FGR rate correcting for the effect of ambient temperature. Tests are performed while varying the parameters to determine the effect and equations are developed that predict NOx and CO based on the parameters.

## VII. General Calculations

### A. Assumptions

To streamline emission calculations, PM2.5 emissions are assumed to be equal to PM10 emissions. Only if needed to determine if a project is a Federal major modification for PM2.5 will specific PM2.5 emission calculations be performed.

The heat input rate for N-1339-17-6 is limited to 1,059,019 MMBtu per year per previous ATC condition and 260 MMBtu/hr as proposed by the applicant.

The heat input rate for N-1339-24-2 is limited to 1,271,700 MMBtu per year (equivalent to 2,700 hr/yr when firing at a rate of 471 MMBtu/hr or 2,774 hr/yr when firing at a rate of 458.5 MMBtu/hr).

### B. Emission Factors

The following emission factors were used for ATCs N-1399-17-5 and -24-1 and are still valid for this project since there are no changes to the burners or methods of operation.

#### N-1399-17

Pollutant	EF		Source
	lb/MMBtu	ppmvd @ 3% O <sub>2</sub>	
NO <sub>x</sub> Startup/shutdown	0.036	30.0	ATC N-1399-17-5
NO <sub>x</sub> Steady-state	0.008	7	ATC N-1399-17-5
SO <sub>x</sub>	0.00285	--	
PM <sub>10</sub>	0.0074	--	ATC N-1399-17-5
CO Startup/shutdown	0.148	200	ATC N-1399-17-5
CO Steady-state	0.037	50	ATC N-1399-17-5
VOC	0.0042	10	

N-1399-24

Pollutant	EF		Source
	lb/MMBtu	ppmvd @ 3% O <sub>2</sub>	
NO <sub>x</sub> Startup/shutdown	0.036	30.0	ATC N-1399-24-1
NO <sub>x</sub> Steady-state	0.0062	5.0	
SO <sub>x</sub>	0.00285	--	District Policy APR-1720
PM <sub>10</sub>	0.003	--	ATC N-1399-24-1
CO Startup/shutdown	0.148	200	
CO Steady-state	0.037	50	
VOC	0.002	5	
NH <sub>3</sub>	0.0042	10	Typical ammonia slip

**C. Calculations**

**1. Pre-Project Potential to Emit (PE1)**

N-1399-17-5

The heat input rate to the unit is limited to 1,059,019 MMBtu per year.

NO<sub>x</sub>, CO:

*Startup/shutdown:*

Per applicant, the total duration of startup and shutdown will not exceed 3 hours per day (2 hours for startup, 1 hour for shutdown) and 41 hours per year.

$$PE1 \text{ (lb/day)} = EF1_{\text{Startup and shutdown}} \text{ lb/MMBtu} \times 260 \text{ MMBtu/hr} \times 3 \text{ hr/day}$$

$$PE1 \text{ (lb/yr)} = EF1_{\text{Startup and shutdown}} \text{ lb/MMBtu} \times 260 \text{ MMBtu/hr} \times 41 \text{ hr/yr}$$

*Steady state:*

$$PE1 \text{ (lb/day)} = EF1_{\text{Steady-state}} \text{ lb/MMBtu} \times 260 \text{ MMBtu/hr} \times (24 - 3) \text{ hr/day}$$

$$PE1 \text{ (lb/yr)} = EF1_{\text{Steady-state}} \text{ lb/MMBtu} \times (1,059,019 - (260 \times 41)) \text{ MMBtu/yr}$$

SO<sub>x</sub>, PM<sub>10</sub>, VOC:

$$PE1 \text{ (lb/day)} = EF1 \text{ lb/MMBtu} \times 260 \text{ MMBtu/hr} \times 24 \text{ hr/day}$$

$$PE1 \text{ (lb/yr)} = EF1 \text{ lb/MMBtu} \times 1,059,019 \text{ MMBtu/yr}$$

Pollutant	EF1 (lb/MMBtu)	PE1 (lb/day)	PE1 (lb/yr)
NO <sub>x</sub> Startup and shutdown	0.036	28.1	384
NO <sub>x</sub> Steady-state	0.008	43.7	8,387
<b>NOx (Total)</b>	--	<b>71.8</b>	<b>8,771</b>
SO <sub>x</sub>	0.00285	17.8	3,018
PM <sub>10</sub>	0.0074	46.2	7,837
CO Startup/shutdown	0.148	115.4	1,578
CO Steady-state	0.037	202.0	38,789
<b>CO (Total)</b>	--	<b>317.4</b>	<b>40,367</b>
VOC	0.0042	26.2	4,448

N-1399-24-1

NO<sub>x</sub>, CO:

*Startup/shutdown:*

Per applicant, the total duration of startup and shutdown will not exceed 5 hours per day (4 hours for startup, 1 hour for shutdown) and 41 hours per year.

$$PE1 \text{ (lb/day)} = EF1_{\text{Startup and shutdown}} \text{ lb/MMBtu} \times 471 \text{ MMBtu/hr} \times 5 \text{ hr/day}$$

$$PE1 \text{ (lb/yr)} = EF1_{\text{Startup and shutdown}} \text{ lb/MMBtu} \times 471 \text{ MMBtu/hr} \times 41 \text{ hr/yr}$$

*Steady state:*

$$PE1 \text{ (lb/day)} = EF1_{\text{Steady-state}} \text{ lb/MMBtu} \times 471 \text{ MMBtu/hr} \times (24 - 5) \text{ hr/day}$$

$$PE1 \text{ (lb/yr)} = EF1_{\text{Steady-state}} \text{ lb/MMBtu} \times (1,271,700 - (471 \times 41)) \text{ MMBtu/yr}$$

SO<sub>x</sub>, PM<sub>10</sub>, VOC, NH<sub>3</sub>:

$$PE1 \text{ (lb/day)} = EF1 \text{ (lb/MMBtu)} \times 471 \text{ MMBtu/hr} \times 24 \text{ hr/day}$$

$$PE1 \text{ (lb/yr)} = EF1 \text{ (lb/MMBtu)} \times 471 \text{ MMBtu/hr} \times 2,700 \text{ hr/yr}$$

Pollutant	EF1 (lb/MMBtu)	PE1 (lb/day)	PE1 (lb/yr)
NO <sub>x</sub> Startup and shutdown	0.036	84.8	695
NO <sub>x</sub> Steady-state	0.0062	55.5	7,765
<b>NOx (Total)</b>	--	<b>140.3</b>	<b>8,460</b>
SO <sub>x</sub>	0.00285	32.2	3,624
PM <sub>10</sub>	0.003	33.9	3,815
CO Startup/shutdown	0.148	348.5	2,858
CO Steady-state	0.037	331.1	46,338
<b>CO (Total)</b>	--	<b>679.6</b>	<b>49,196</b>
VOC	0.002	22.6	2,543
NH <sub>3</sub>	0.0042	47.5	5,341

## 2. Post Project Potential to Emit (PE2)

The facility has proposed a hourly fuel limit of 260 MMBtu/hr for N-1399-17, as a result there are no changes to the PE despite the increase from correcting the burner rating.

PE2 for N-1399-17-6		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NO <sub>x</sub>	71.8	8,771
SO <sub>x</sub>	17.8	3,018
PM <sub>10</sub>	46.2	7,837
CO	317.4	40,367
VOC	26.2	4,448

N-1399-24-2

NO<sub>x</sub>, CO:

*Startup/shutdown:*

Per applicant, the total duration of startup and shutdown will not exceed 5 hours per day (4 hours for startup, 1 hour for shutdown) and 41 hours per year.

$$PE2 \text{ (lb/day)} = EF2_{\text{Startup and shutdown}} \text{ lb/MMBtu} \times 458.5 \text{ MMBtu/hr} \times 5 \text{ hr/day}$$

$$PE2 \text{ (lb/yr)} = EF2_{\text{Startup and shutdown}} \text{ lb/MMBtu} \times 458.5 \text{ MMBtu/hr} \times 41 \text{ hr/yr}$$

*Steady state:*

$$PE2 \text{ (lb/day)} = EF2_{\text{Steady-state}} \text{ lb/MMBtu} \times 458.5 \text{ MMBtu/hr} \times (24 - 5) \text{ hr/day}$$

$$PE2 \text{ (lb/yr)} = EF2_{\text{Steady-state}} \text{ lb/MMBtu} \times (1,271,700 \text{ MMBtu} - (458.5 \text{ MMBtu/hr} \times 41 \text{ hr/yr}))$$

SO<sub>x</sub>, PM<sub>10</sub>, VOC, NH<sub>3</sub>:

$$PE2 \text{ (lb/day)} = EF2 \text{ (lb/MMBtu)} \times 458.5 \text{ MMBtu/hr} \times 24 \text{ hr/day}$$

$$PE2 \text{ (lb/yr)} = EF2 \text{ (lb/MMBtu)} \times 1,271,700 \text{ MMBtu/yr}$$

Pollutant	EF2 (lb/MMBtu)	PE2 (lb/day)	PE2 (lb/yr)
NO <sub>x</sub> Startup and shutdown	0.036	82.4	677
NO <sub>x</sub> Steady-state	0.0062	54	7,768
<b>NOx (Total)</b>	--	<b>136.4</b>	<b>8,445</b>
SO <sub>x</sub>	0.00285	31.4	3,624
PM <sub>10</sub>	0.003	33	3,815
CO Startup/shutdown	0.148	339.3	2,782
CO Steady-state	0.037	322.3	46,357
<b>CO (Total)</b>	--	<b>661.6</b>	<b>49,139</b>
VOC	0.002	22.0	2,543
NH <sub>3</sub>	0.0042	46.2	5,341

**3. Pre-Project Stationary Source Potential to Emit (SSPE1)**

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site.

The SSPE1 is calculated in Project N-1151735 and presented in the following table.

Permit#	Pollutants (lb/yr)				
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
Total from N-1399-4-1, 5-1, 11-0, 13-1, 16-1, 17-3, 20-1, 21-0, and 24-1	33,705	12,618	30,897	145,130	17,312
N-1399-26-0	0	0	183	0	0
N-1399-28-0	0	0	0	0	730
ERC N-33-1	--	--	--	--	241
ERC N-33-2	90,905	--	--	--	--
ERC N-33-4	--	--	3,215	--	--
ERC N-33-5	--	34,984	--	--	--
ERC N-96-2	1,701	--	--	--	--
ERC N-96-3	--	--	--	837	--
Total without ERCs	33,705	12,618	31,080	145,130	18,042
Total with ERCs	126,311	47,602	34,295	145,967	18,283

#### 4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

SSPE2 is calculated in Appendix C and presented in the following table:

Permit#	Pollutants (lb/yr)				
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
Total from N-1399-4-1, 5-1, 11-0, 13-1, 16-1, 17-6, 20-1, 21-0, and 24-2	33,705	12,624	30,897	145,166	17,312
N-1399-26-0	0	0	183	0	0
N-1399-28-0	0	0	0	0	730
ERC N-33-1	--	--	--	--	241
ERC N-33-2	90,905	--	--	--	--
ERC N-33-4	--	--	3,215	--	--
ERC N-33-5	--	34,984	--	--	--
ERC N-96-2	1,701	--	--	--	--
ERC N-96-3	--	--	--	837	--
Total without ERCs	33,705	12,624	31,080	145,166	18,042
Total with ERCs	126,311	47,608	34,295	146,003	18,283

**5. Major Source Determination**

**Rule 2201 Major Source Determination:**

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

<b>Rule 2201 Major Source Determination (lb/year)</b>						
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	VOC
<b>SSPE1</b>	33,705	12,618	31,080	31,080	145,130	18,042
<b>SSPE2</b>	33,705	12,624	31,080	31,080	145,166	18,042
<b>Major Source Threshold</b>	20,000	140,000	140,000	200,000	200,000	20,000
<b>Major Source?</b>	Yes	No	No	No	No	No

Note: PM2.5 assumed to be equal to PM10

As seen in the table above, the facility is an existing Major Source for NO<sub>x</sub> emissions and will remain a Major Source.

**Rule 2410 Major Source Determination:**

The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 100 tpy for any regulated NSR pollutant.

<b>PSD Major Source Determination (tons/year)</b>						
	NO <sub>2</sub>	VOC	SO <sub>2</sub>	CO	PM	PM <sub>10</sub>
Estimated Facility PE before Project Increase	16.9	9.0	6.3	72.6	15.5	15.5
PSD Major Source Thresholds	100	100	100	100	100	100
PSD Major Source ? (Y/N)	No	No	No	No	No	No

As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

## 6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

### a. BE NO<sub>x</sub>

#### Unit Located at a Non-Major Source

As shown in Section VII.C.5 above, the facility is a major source for NO<sub>x</sub> emissions.

#### Clean Emissions Unit, Located at a Major Source

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is “equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

This emissions unit is equipped with an ultra low NO<sub>x</sub> burner, which meets the required 7 ppmv for achieved-in-practice BACT. Therefore, BE=PE1.

N-1399-17-6

BE = PE1 = 8,771 lb NO<sub>x</sub>/year

N-1399-24-2

BE = PE1 = 8,460 lb NO<sub>x</sub>/year

### b. BE SO<sub>x</sub>

#### Unit Located at a Non-Major Source

As shown in Section VII.C.5 above, the facility is not a major source for SO<sub>x</sub> emissions.

Therefore Baseline Emissions BE=PE1.

N-1399-17-6

BE = PE1 = 3,018 lb SO<sub>x</sub>/year

N-1399-24-2  
BE = PE1 = 3,624 lb SO<sub>x</sub>/year

**c. BE PM<sub>10</sub>**

Unit Located at a Non-Major Source

As shown in Section VII.C.5 above, the facility is not a major source for PM<sub>10</sub> emissions.

Therefore BE=PE1.

N-1399-17-6  
BE = PE1 = 7,837 lb PM<sub>10</sub>/year

N-1399-24-2  
BE = PE1 = 3,815 lb PM<sub>10</sub>/year

**d. BE CO**

Unit Located at a Non-Major Source

As shown in Section VII.C.5 above, the facility is not a major source for CO emissions.

Therefore BE=PE1.

N-1399-17-6  
BE = PE1 = 40,367 lb CO/year

N-1399-24-2  
BE = PE1 = 49,196 lb CO/year

**e. BE VOC**

Unit Located at a Non-Major Source

As shown in Section VII.C.5 above, the facility is not a major source for VOC emissions.

Therefore BE=PE1.

N-1399-17-6  
BE = PE1 = 4,448 lb VOC/year

N-1399-24-2  
BE = PE1 = 2,543 lb VOC/year

**7. SB 288 Major Modification**

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."



Since this facility is a major source for NO<sub>x</sub>, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO <sub>x</sub>	17,216	50,000	No

As demonstrated in the preceding table, this project does not constitute an SB 288 Major Modification.

### 8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. Emission decreases may not cancel out the increases for this determination.

#### Step 1

For existing emissions units, the increase in emissions is calculated as follows.

$$\text{Emission Increase} = \text{PAE} - \text{BAE} - \text{UBC}$$

Where: PAE = Projected Actual Emissions, and  
 BAE = Baseline Actual Emissions  
 UBC = Unused baseline capacity

UBC: Since this project does not result in an increase in design capacity or potential to emit, and it does not impact the ability of the emission unit to operate at a higher utilization rate, the UBC is the portion of PAE that the emission units could have accommodated during the baseline period.

The project's combined total emission increases are compared to the Federal Major Modification Thresholds in the following table.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
NO <sub>x</sub> *	0	0	No

\*If there is any emission increases in NO<sub>x</sub> this project is a Federal Major Modification and no further analysis is required.

Since none of the Federal Major Modification Thresholds are being surpassed with this project, this project does not constitute a Federal Major Modification and no further analysis is required.

**9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination**

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10

**Project Emissions Increase - New Major Source Determination**

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

The equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). The PSD Major Source threshold is 100 tpy for any regulated NSR pollutant.

<b>PSD Major Source Determination: Potential to Emit (tons/year)</b>						
	NO2	VOC	SO2	CO	PM	PM10
Total PE from New and Modified Units	8.6	3.5	3.3	44.8	5.8	5.8
PSD Major Source threshold	100	100	100	100	100	100
New PSD Major Source?	No	No	No	No	No	No

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

**10. Quarterly Net Emissions Change (QNEC)**

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included in Appendix D.

## VIII. Compliance

### Rule 1080 Stack Monitoring

This rule grants the APCO the authority to request the installation, use, maintenance, and inspection of continuous emissions monitors (CEMs), and specifies performance standards for the equipment and administrative requirements for recordkeeping, reporting, and notification.

The applicant has proposed to monitor NO<sub>x</sub>, CO and O<sub>2</sub> concentrations from boilers N-1399-17 and '-24 using PEMS to meet the requirements of applicable District rules and Federal regulations. Therefore, the following conditions will be placed on each permit to ensure compliance with the requirements of this rule.

- The owner or operator shall install, certify, maintain, operate and quality-assure a Predictive Emission Monitoring System (PEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. PEMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the PEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of PEMS cannot be demonstrated during startup conditions, PEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.48b(1)]
- The PEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
- The NO<sub>x</sub>, CO and O<sub>2</sub> PEMS shall meet the requirements in 40 CFR 60, Appendix B Performance Specification 16 (PS 16) or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
- PEMS must be audited at least once each calendar quarter, by relative accuracy audits (RAA) except during quarters in which a RATA is performed, in accordance with EPA guidelines. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080, 2201, 4305, 4306 and 4320]
- The owner/operator shall perform a relative accuracy test audit (RATA) for the NO<sub>x</sub>, CO and O<sub>2</sub> PEMS within 60 days of initial startup. After the initial startup RATA, the facility shall conduct a RATA for the PEMS at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the predictive emission monitoring equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix B, Performance Specification 16. [District Rule 1080 and 40 CFR Part 64]

- If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, the permittee may elect to perform a single mid year RAA in the second year in place of the quarterly RAAs as specified in Section 9.3 of EPA Performance Specification 16. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA. When such a failure occurs, the operator must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA. [District Rule 1080]
- APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080, 2201, 4305, 4306 and 4320]
- The PEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
- Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the PEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
- The facility shall install and maintain equipment, facilities, and systems compatible with the District's PEMS data polling software system and shall make PEMS data available to the District's automated polling system on a daily basis. [District Rule 1080]
- Upon notice by the District that the facility's PEMS 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 PEMS data is sent to the District by a District-approved alternative method. [District Rule 1080]
- The permittee shall maintain the following records for PEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which PEMS was inoperative. [District Rule 1080]
- The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NO<sub>x</sub> and CO emission rates (expressed as NO<sub>2</sub>) (ppmvd @ 3% O<sub>2</sub> and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NO<sub>x</sub> emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with

the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NO<sub>x</sub> and CO emission rates are in excess of the NO<sub>x</sub> and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the PEMS; (10) Description of any modifications to the PEMS that could affect the ability of the PEMS to comply with Performance Specification 16; (11) Results of daily PEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)]

- The owner or operator of an affected facility may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. 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 permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 40 CFR 60.49b(v)]
- The PEMS sensor evaluation system shall check the integrity of each input at least once per day. [District Rule 1080]

### **Rule 1081 Source Sampling**

This Rule requires adequate and safe sampling facilities such as sampling ports, sampling platforms, access to the sampling platforms for use in sampling to determine compliance with emissions limits, and specifies methods and procedures for source testing and sample collection. The following conditions will be placed on each permit to ensure compliance with the requirements of this rule.

- The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]

- The initial PEMS training and testing and source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
- Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081]
- The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

Compliance is expected with this Rule.

### **Rule 1100 Equipment Breakdown**

This Rule defines a breakdown condition and the procedures to follow if one occurs. The corrective action, the issuance of an emergency variance, and the reporting requirements are also specified. The following conditions will be placed on each permit to ensure compliance with the requirements of this rule.

- The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
- The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]

Compliance is expected with this Rule.

### **Rule 2201 New and Modified Stationary Source Review Rule**

#### **A. Best Available Control Technology (BACT)**

##### **1. BACT Applicability**

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions\*:

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,

- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

\*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

**a. New emissions units – PE > 2 lb/day**

As discussed in Section I above, there are no new emissions units associated with this project. Therefore BACT for new units with PE > 2 lb/day purposes is not triggered.

**b. Relocation of emissions units – PE > 2 lb/day**

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

**c. Modification of emissions units – AIPE > 2 lb/day**

$$\text{AIPE} = \text{PE}_2 - \text{HAPE}$$

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)

PE<sub>2</sub> = Post-Project Potential to Emit, (lb/day)

HAPE = Historically Adjusted Potential to Emit, (lb/day)

$$\text{HAPE} = \text{PE}_1 \times (\text{EF}_2/\text{EF}_1)$$

Where,

PE<sub>1</sub> = The emissions unit's PE prior to modification or relocation, (lb/day)

EF<sub>2</sub> = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF<sub>2</sub> is greater than EF<sub>1</sub> then EF<sub>2</sub>/EF<sub>1</sub> shall be set to 1

EF<sub>1</sub> = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

$$\text{AIPE} = \text{PE}_2 - (\text{PE}_1 * (\text{EF}_2 / \text{EF}_1))$$

For all pollutants and both units, EF<sub>2</sub> is equal to EF<sub>1</sub> and PE<sub>2</sub> is less than or equal to PE<sub>1</sub>. Therefore, the AIPE is not greater than 2.0 lb/day for emissions for any unit and BACT is not triggered.

**d. SB 288/Federal Major Modification**

As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute an SB 288 and/or Federal Major Modification for NO<sub>x</sub> emissions. Therefore BACT is not triggered for any pollutant.

**B. Offsets**

**1. Offset Applicability**

Offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

<b>Offset Determination (lb/year)</b>					
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
SSPE2	126,311	47,608	34,295	146,003	18,283
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	Yes	No	Yes	No	No

**2. Quantity of Offsets Required**

As seen above, the facility is an existing Major Source for NO<sub>x</sub> and the SSPE2 is greater than the offset thresholds for NO<sub>x</sub> and PM<sub>10</sub>. Therefore offset calculations will be required for this project.

The quantity of offsets in pounds per year for NO<sub>x</sub> and PM<sub>10</sub> are calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) =  $(\Sigma[PE2 - BE] + ICCE) \times DOR$ , for all new or modified emissions units in the project,

Where,

- PE2 = Post Project Potential to Emit, (lb/year)
- BE = Baseline Emissions, (lb/year)
- ICCE = Increase in Cargo Carrier Emissions, (lb/year)
- DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, Located at a Major Source.

otherwise,

BE = HAE

Per section 3.8 of Rule 2201, BE can be set equal to PE1 for any Clean Emission Unit (CEU), located at a Major Source, provided that if the unit has a SLC, all units under the



SLC also qualify as CEUs. CEU is defined in Section 3.13 of Rule 2201, as an emission unit that is either equipped with an emission control technology with a minimum control efficiency of at least 95% or equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

This facility is a Major Source for NOx emissions, and operating under facility-wide NOx limit of 33,705 pounds per year. Currently, the boilers operating under permit N-1399-17 and -24 are a part of the facility-wide NOx limit. Therefore, it will be determined whether or not all units under the facility-wide NOx limit are CEUs. The following table summarizes clean unit determination.

Permit #	Permit NOx Limit	AIP BACT for NOx	CEU (Yes/No)
N-1399-4-1 & 5-1	7 ppmvd @ 3% O <sub>2</sub>	7.0 ppmvd @ 3% O <sub>2</sub> (or less)	Yes
N-1399-11-0	6.1 g/bhp-hr (emergency fire pump IC engine)	Certified NOx emissions of 6.9 g/bhp-hr or less (BACT Guideline 3.1.4)	Yes
N-1399-13-1	7 ppmvd @ 3% O <sub>2</sub>	7.0 ppmvd @ 3% O <sub>2</sub> (or less)	Yes
N-1399-16-1	0.0364 lb/MMBtu	Use of natural gas and operating the burner within manufacturer's specifications to minimize NOx (BACT Guideline 1.6.1)	Yes
N-1399-17-6	7 ppmvd @ 3% O <sub>2</sub>	7.0 ppmvd @ 3% O <sub>2</sub> (or less)	Yes
N-1399-20-1	7 ppmvd @ 3% O <sub>2</sub>	7.0 ppmvd @ 3% O <sub>2</sub> (or less)	Yes
N-1399-21-0	2.54 g/bhp-hr (NOx + VOC, Tier 3 Certified, emergency IC engine)	3.0 g/bhp-hr (NO <sub>x</sub> + NMHC)	Yes
N-1399-24-2	5.0 ppmvd @ 3% O <sub>2</sub>	7.0 ppmvd @ 3% O <sub>2</sub> (or less)	Yes

The units under the facility-wide NOx limit are found to be clean, therefore, BE is set equal to PE1.

$$EOQ = (\Sigma(PE2 - PE1) + ICCE) \times DOR, ICCE = 0$$

As stated previously, this facility has a facility-wide NOx limit. Therefore,

$$EOQ = SSPE2 - SSPE1$$

$$= 33,705 \text{ lb-NOx/yr} - 33,705 \text{ lb-NOx/yr}$$

$$= 0 \text{ lb-NOx/yr}$$

PM<sub>10</sub>:

The proposed increase in PM<sub>10</sub> emissions is 0 lb/day due to the proposed project. Therefore, offsets are not required for PM<sub>10</sub> emissions.

**C. Public Notification**

**1. Applicability**

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed, and/or
- d. Any project with an SSPE of greater than 20,000 lb/year for any pollutant.
- e. Any project which results in a Title V significant permit modification

**a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications**

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in Sections VII.C.7 and VII.C.8, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

**b. PE > 100 lb/day**

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. There are no new emissions units associated with this project. Therefore public noticing is not required for this project for PE > 100 lb/day.

**c. Offset Threshold**

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO <sub>x</sub>	126,311	126,311	20,000 lb/year	No
SO <sub>x</sub>	47,602	47,608	54,750 lb/year	No
PM <sub>10</sub>	34,295	34,295	29,200 lb/year	No
CO	145,967	146,003	200,000 lb/year	No
VOC	18,283	18,283	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

**d. SSIPE > 20,000 lb/year**

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

<b>SSIPE Public Notice Thresholds</b>					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO <sub>x</sub>	126,311	126,311	0	20,000 lb/year	No
SO <sub>x</sub>	47,608	47,602	6	20,000 lb/year	No
PM <sub>10</sub>	34,295	34,295	0	20,000 lb/year	No
CO	146,003	145,967	36	20,000 lb/year	No
VOC	18,283	18,283	0	20,000 lb/year	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

**e. Title V Significant Permit Modification**

As shown in the Discussion of Rule 2520 below, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modifications is required for this project.

**2. Public Notice Action**

As discussed above, public noticing is required for this project for Title V Significant Permit Modification. Therefore, public notice documents will be submitted to EPA and CARB and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

**D. Daily Emission Limits (DELs)**

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

For these boilers, the DELs are stated in the form of emission factors (ppmv or lb/MMBtu), the maximum heat input of the boiler, and the maximum operational time of 24 hours per day.

**Proposed Rule 2201 (DEL) Conditions:**

**N-1399-17**

- Heat input to this unit shall not exceed either of the following: 260 MMBtu/hr and 1,059,019 MMBtu during any 12 consecutive month rolling period. [District Rule 2201]
- The startup duration shall not exceed 2.0 hours per day. [District Rules 2201, 4306 and 4320]
- The shutdown duration shall not exceed 1.0 hour per day. [District Rules 2201, 4306 and 4320]
- During startup and shutdown and initial PEMS training, NOx emissions shall not exceed 30.0 ppmvd @ 3% O2 or 0.036 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour.
- During startup and shutdown and initial PEMS training, CO emissions shall not exceed 200 ppmvd @ 3% O2 or 0.148 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
- Except during startup and shutdown, NOx emissions shall not exceed 7.0 ppmvd @ 3% O2 or 0.008 lb/MMBtu, referenced as NO2 over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
- Except during startup and shutdown, CO emissions shall not exceed 50 ppmvd @ 3% O2 or 0.037 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
- SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]
- PM10 emissions shall not exceed 0.0074 lb/MMBtu. [District Rule 2201]
- VOC emissions shall not exceed 10 ppmvd @ 3% O2 or 0.0042 lb/MMBtu, referenced as methane. [District Rule 2201]

**N-1399-24**

- The startup duration shall not exceed 4.0 hours per day. [District Rules 2201, 4306 and 4320]
- The shutdown duration shall not exceed 1.0 hour per day. [District Rules 2201, 4306 and 4320]
- During startup and shutdown and initial PEMS training, NOx emissions shall not exceed 30.0 ppmvd @ 3% O2 or 0.036 lb/MMBtu over 1-hour averaging period. Each one-hour

period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]

- During startup and shutdown and initial PEMS training, CO emissions shall not exceed 200 ppmvd @ 3% O<sub>2</sub> or 0.148 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
- Except during startup and shutdown, NO<sub>x</sub> emissions shall not exceed 5.0 ppmvd @ 3% O<sub>2</sub> or 0.0062 lb/MMBtu, referenced as NO<sub>2</sub> over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
- Except during startup and shutdown, CO emissions shall not exceed 50 ppmvd @ 3% O<sub>2</sub> or 0.037 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
- SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]
- PM<sub>10</sub> emissions shall not exceed 0.003 lb/MMBtu. [District Rule 2201]
- VOC emissions shall not exceed 5 ppmvd @ 3% O<sub>2</sub> or 0.002 lb/MMBtu, referenced as methane. [District Rule 2201]
- NH<sub>3</sub> emissions shall not exceed 10 ppmvd @ 3% O<sub>2</sub>. [District Rule 2201]

## **E. Compliance Assurance**

### **1. Source Testing**

District Rules 4305, 4306, and 4320 require NO<sub>x</sub> and CO emission testing not less than once every 12 months. Gaseous fuel fired units demonstrating compliance on two consecutive compliance source tests may defer the following source test for up to thirty-six months. The District Source Test Policy (APR 1705) requires annual testing for all pollutants controlled by catalysts. The control equipment will include a SCR system and ammonia slip is an indicator of how well the SCR system is performing.

Source testing for NO<sub>x</sub>, CO, and ammonia was required within 60 days of initial operation and at least once every 12 months thereafter. Upon demonstrating compliance on two consecutive source tests, the following source test may be deferred for up to thirty-six months. Source testing for Rule 4305, 4306, and 4320 also satisfies any source testing requirements for Rule 2201. No additional source testing is required.

## 2. Monitoring

District Rules 4305, 4306, and 4320 require the owner of any unit equipped with NO<sub>x</sub> reduction technology shall either install and maintain continuous emissions monitoring equipment for NO<sub>x</sub>, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or install and maintain APCO-approved alternate monitoring plan. Since the boiler will be equipped with a low NO<sub>x</sub> burner and a selective catalytic reduction system, this requirement applies.

The applicant proposed to utilize a PEMS and periodic monitoring of NO<sub>x</sub>, CO, and O<sub>2</sub> emissions concentrations with a portable analyzer to meet the requirements of District Rules 4305, 4306, 4320 and 40 CFR 60 Subpart Db. Monitoring for Rules 4305, 4306, and 4320 also satisfy the monitoring requirements for Rule 2201. No additional monitoring for Rule 2201 is required.

## 3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following condition(s) are listed on the permit to operate:

- The owner or operator shall maintain records of the amount of fuel combusted during each day in this unit. [District Rule 2201 and 40 CFR 60.49b(d)(1)]
- The owner or operator shall keep records of the date, duration of each startup (hours), and duration of each shutdown (hours). [District Rule 2201]
- The owner or operator shall keep records of the total duration of startups and shutdowns (hours) on a rolling 12 consecutive month total basis, and shall be updated at least monthly. [District Rule 2201]
- The owner or operator shall keep record of the facility-wide NO<sub>x</sub> emissions (in pounds). The record shall be on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201]
- The owner or operator shall keep record of the annual heat input to this unit (in MMBtu). The record shall be kept on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201]
- The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)]

The applicant will also be required to keep records of all of the parameters that are required by the monitoring requirements imposed by EPA as a condition of approval to replace the CEMS with PEMS.

- The permittee shall maintain records of the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, the measured NO<sub>2</sub> and CO concentrations corrected to 3% O<sub>2</sub>, and the O<sub>2</sub> concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be maintained, retained on-site for a period of at least five years and made available for District inspection upon request. [40 CFR Part 60]

#### **4. Reporting**

40 CFR Part 60 Subpart Section 60.49b paragraph (h)(2) requires that the owner submit quarterly excess emission reports for any calendar quarter during which there are excess emissions. It also requires semiannual reports stating that there have been no excess emissions during periods when there have been no excess emissions. Such reporting will be required and will satisfy the reporting requirements for Rule 2201. No additional reporting is required.

#### **F. Ambient Air Quality Analysis (AAQA)**

An AAQA is conducted for any project which has an increase in emissions and triggers public notification requirements for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. This project does not have an increase in emissions that have not already been evaluated in a previous project therefore an AAQA is not required.

#### **Rule 2410 Prevention of Significant Deterioration**

As shown in Section VII. C. 9. above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

#### **Rule 2520 Federally Mandated Operating Permits**

This facility is subject to this Rule, and has received their Title V Operating Permit. A significant permit modification is defined as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

Minor permit modifications do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions. The monitoring method will be changing from a continuous emissions monitoring system (CEMS) to a predictive emission monitoring system (PEMS), which is a significant change in existing monitoring terms and conditions. As a result, the proposed project constitutes a Significant Modification to the Title V Permit.

As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility shall not implement the changes requested until the final permit is issued. The following conditions will be included on the draft ATCs:

- This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201]
- Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4]

#### **Rule 2550 Federally Mandated Preconstruction Review for Major Sources of Air Toxics**

Section 2.0 states, “The provisions of this rule shall only apply to applications to construct or reconstruct a major air toxics source with Authority to Construct issued on or after June 28, 1998.”

This facility is not becoming a Major HAP Source (i.e. PE >10 tons/yr for single HAP, PE > 25 tons/yr for combined HAPs). Therefore, this facility is not subject to the requirements of this Rule.

#### **Rule 4001 New Source Performance Standards (NSPS)**

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subpart Db applies to Industrial-Commercial-Industrial Steam Generators greater than 100 MMBtu/hr (post-6/19/84 construction, modification or, reconstruction)

The boilers affected by this project were determined to be subject to, and complying with, the requirements of this Subpart under project N-1121905. Only changes to requirements related to emissions monitoring requirements are discussed below.

40 CFR 60.48b(g)(2) allows a facility to monitor its steam generating unit's operating conditions and to predict NOx emission rates in place of using the CEMS. Although this option is limited to units having a heat input capacity of less than 250 MMBtu/hr Liberty Packing Company was granted conditional approval from EPA (Appendix E) to use PEMS on Boiler 1 (N-1399-17) and Boiler 6 (N-1399-24) to demonstrate compliance with the NOx standard found in 40 CFR 60.44 through the monitoring of steam generating unit operating conditions.

Conditions currently on the permits will continue to ensure compliance with the requirements of this subpart with any references to CEMS changed to PEMS and the following requirements will be added based on the conditions of approval imposed by EPA.

- An O&M manual containing detailed system requirements and the monitoring plan required under 40 CFR 60.49b(c) must be submitted and approved.
- The PEMS shall be certified according to, and fully compliant with PS-16.
- Permittee will perform monthly monitoring using a calibrated portable O<sub>2</sub>, CO, NO and NO<sub>2</sub> analyzer. This monthly monitoring will consist of at least one 30 minute



measurement period in which the portable analyzer results will be compared to the PEMS data. If the average emissions value measured with the calibrated portable analyzer differs from the simultaneous PEMS average emissions value by more than the amounts allowed in section 13.5 of PS-16, permittee must notify its permitting authority and take corrective actions. Following the corrective actions, the monitoring process must be repeated.

- Plant boiler operating personnel will be trained on the proper operation, maintenance and reporting requirements of the PEMS system.

#### **Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)**

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to steam generating operations.

#### **Rule 4101 Visible Emissions**

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As each of the boilers are fired solely on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Also, based on past inspections of the facility continued compliance is expected.

#### **Rule 4102 Nuisance**

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

#### **California Health & Safety Code 41700 (Health Risk Assessment)**

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

There are no increases in emissions associated with this project which have not been evaluated in a previous project, therefore a health risk assessment is not necessary and no further risk analysis is required.

#### **Rule 4201 Particulate Matter Concentration**

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

The applicant is not proposing to increase the existing PM emission factor rate or heat input rate. Thus, continued compliance is expected with this rule.

**Rule 4301 Fuel Burning Equipment**

The requirements of section 5.0 are as follows:

- Combustion contaminates (TSP) - Not to exceed 0.1 gr/dscf @ 12% CO<sub>2</sub> and 10 lb/hr.
- SO<sub>x</sub> emissions - Not to exceed 200 lb/hr
- NO<sub>x</sub> emissions - Not to exceed 140 lb/hr

N-1399-17-6:

NO<sub>x</sub> (lb/hr) = (0.036 lb/MMBtu)(260 MMBtu/hr) = 9.36 lb/hr

SO<sub>x</sub> (lb/hr) = (0.00285 lb/MMBtu)(260 MMBtu/hr) = 0.7 lb/hr

$$\begin{aligned}
 \text{PM} \left( \frac{\text{gr}}{\text{dscf}} \right) &= \frac{\text{PM Emissions} \left( \frac{\text{lb - PM}}{\text{MMBtu}} \right) \times 7,000 \frac{\text{gr - PM}}{\text{lb - PM}}}{F_{\text{factor CO}_2} \left( \frac{\text{dscf}}{\text{MMBtu}} \right) \times \left( \frac{100\%}{12\%} \right)} \\
 &= \frac{\left( 0.0074 \frac{\text{lb - PM}}{\text{MMBtu}} \right) \left( 7,000 \frac{\text{gr - PM}}{\text{lb - PM}} \right)}{\left( 1,024.2 \frac{\text{dscf}}{\text{MMBtu}} \right) \left( \frac{100\%}{12\%} \right)} \\
 &= 0.006 \frac{\text{gr - PM}}{\text{dscf}}
 \end{aligned}$$

N-1399-24-2:

NO<sub>x</sub> (lb/hr) = (0.036 lb/MMBtu)(458.5 MMBtu/hr) = 16.5 lb/hr

SO<sub>x</sub> (lb/hr) = (0.00285 lb/MMBtu)(458.5 MMBtu/hr) = 1.3 lb/hr

$$\begin{aligned}
 \text{PM} \left( \frac{\text{gr}}{\text{dscf}} \right) &= \frac{\text{PM Emissions} \left( \frac{\text{lb - PM}}{\text{MMBtu}} \right) \times 7,000 \frac{\text{gr - PM}}{\text{lb - PM}}}{F_{\text{factor CO}_2} \left( \frac{\text{dscf}}{\text{MMBtu}} \right) \times \left( \frac{100\%}{12\%} \right)} \\
 &= \frac{\left( 0.003 \frac{\text{lb - PM}}{\text{MMBtu}} \right) \left( 7,000 \frac{\text{gr - PM}}{\text{lb - PM}} \right)}{\left( 1,024.2 \frac{\text{dscf}}{\text{MMBtu}} \right) \left( \frac{100\%}{12\%} \right)} \\
 &= 0.0025 \frac{\text{gr - PM}}{\text{dscf}}
 \end{aligned}$$

The proposed emissions are below the limits of this Rule; therefore, compliance is expected.

**Rule 4304 Equipment Tuning Procedure for Boilers, Steam Generators and Process Heaters**

Pursuant to District Rules 4305, 4306, and 4320, boilers are required to be tested at least once every 12-months. Gaseous fuel fired units demonstrating compliance on two consecutive 12-month source tests may defer the following source test for up to 36 months. During 36-month source testing interval, the operator shall tune the boiler according to section 5.2.1 (tune up at least once each calendar year by qualified technician in accordance with Rule 4304). Tune-ups required by Sections 5.2.1 and 6.3.1 do not need to be performed for units that operate and maintain an APCO approved CEMS or an APCO approved Alternate Monitoring System where the applicable emission limits are periodically monitored.

NO<sub>x</sub>, CO and O<sub>2</sub> concentrations from the boilers (N-1399-17 and 24) will be measured using PEMS; therefore, boiler tune-ups are not required.

**Rule 4305 Boilers, Steam Generators and Process Heaters – Phase 2**

Since the emission limits of District Rule 4306 and 4320 and all other requirements are equivalent or more stringent than District Rule 4305 requirements, compliance with District Rule 4306 and 4320 requirements will satisfy requirements of District Rule 4305.

**Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3**

Since the emission limits of District Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4306 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4306.

**Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters greater than 5.0 MMBtu/hr**

*Section 2.0 - Applicability*

Section 2.0 states that this rule applies to any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input greater than 5 million Btu per hour. The heat input rate to each boiler is greater than 5 MMBtu/hr. Therefore, these units are subject to the requirements of this rule.

*Section 5.0 – Requirements*

Section 5.1 states that an operator of a unit(s) subject to this rule shall comply with all applicable requirements of the rule and one of the following, on a unit-by-unit basis:

- Operate the unit to comply with the emission limits specified in Sections 5.2 and 5.4; or
- Pay an annual emissions fee to the District as specified in Section 5.3 and comply with the control requirements specified in Section 5.4; or
- Comply with the applicable Low-use Unit requirements of Section 5.5.

The facility had chosen to comply with the emission limits specified in Section 5.2 and 5.4. These limits are summarized below:

NO<sub>x</sub>: 7 ppmvd @ 3% O<sub>2</sub>

CO: 400 ppmvd @ 3% O<sub>2</sub>

Particulate Matter: Use PUC-quality natural gas, commercial propane, butane, or LPG, or combination of such gases with fuel sulfur content of 5 grains/100 scf or less.

N-1399-17

NO<sub>x</sub>: 7.0 ppmvd @ 3% O<sub>2</sub> (or less);

CO: 50 ppmvd @ 3% O<sub>2</sub> (or less);

Particulate Matter: Use PUC-quality natural gas.

N-1399-24

NO<sub>x</sub>: 5.0 ppmvd @ 3% O<sub>2</sub> (or less);

CO: 50 ppmvd @ 3% O<sub>2</sub> (or less);

Particulate Matter: Use PUC-quality natural gas.

Therefore, compliance is expected with this section.

Section 5.6 states that the NO<sub>x</sub> and CO emission limits shall not apply to this unit during start-up and shutdown period provided that the duration of each start-up or each shutdown is not greater than 2.0 hours, and the emission control system is utilized during these periods.

For N-1399-17-6, the duration of each startup is 2.0 hour and each shutdown is 1.0 hour.

N-1399-24-2 is equipped with an SCR system which includes catalyst bed, catalyst housing, and ammonia injection system. Ammonia injection can start only after the catalyst bed is elevated to a minimum operating temperature (typically around 400°F) to prevent sulfate and nitrate deposits on the catalyst surface. This means, the temperature of flue gases has to be at or above 450°F. The boiler manufacturer recommends gradual warm up during a cold startup (i.e., after 12-24 hour offline) at a rate of approximately 100°F stack temperature per one hour period to enhance lifespan of the refractory end walls. The warm up may be accelerated due to the presence of an FGR system. However, to ensure that the catalyst bed has an adequate time to stabilize and reach its operating temperature, it would still need at least 4 hours during the cold startup to attain the proposed steady state NO<sub>x</sub> emissions. Therefore, the proposed 4 hour startup time is acceptable in this case.

Therefore, compliance is expected with this rule requirement.

Section 5.7.1 requires the operator to install and maintain an operational APCO approved Continuous Emissions Monitoring System (CEMS) for NO<sub>x</sub>, CO, and oxygen, or implement an APCO-approved Alternate Monitoring System. An APCO approved CEMS shall comply with the requirements of 40 Code of Federal Regulations (CFR) Part 51, 40 CFR Parts 60.7 and 60.13 (except subsection h), 40 CFR Part 60 Appendix B (Performance Specifications) and 40 CFR Part 60 Appendix F (Quality Assurance Procedures, and applicable provisions of Rule 1080 (Stack Monitoring). However, after the initial compliance test is conducted, 40 CFR 60.48b(g)(2) allows a facility to monitor its steam generating unit's operating conditions and to

predict NO<sub>x</sub> emission rates in place of using the CEMS. Although this option is contingent upon the unit having a heat input capacity of 250 MMBtu/hr Liberty Packing Company was granted conditional approval from EPA (Appendix E) to use PEMS on Boiler 1 (N-1399-17) and Boiler 6 (N-1399-24) to demonstrate compliance with the NO<sub>x</sub> standard found in 40 CFR 60.44 through the monitoring of steam generating unit operating conditions. Approval from EPA is contingent on the following:

- An O&M manual containing detailed system requirements and the monitoring plan required under 40 CFR 60.49b(c) must be submitted and approved.
- The PEMS shall be certified according to, and fully compliant with PS-16.
- Liberty Packing will perform monthly monitoring using a calibrated portable O<sub>2</sub>, CO, NO and NO<sub>2</sub> analyzer. This monthly monitoring will consist of at least one 30 minute measurement period in which the portable analyzer results will be compared to the PEMS data. If the average emissions value measured with the calibrated portable analyzer differs from the simultaneous PEMS average emissions value by more than the amounts allowed in section 13.5 of PS-16, Liberty Packing must notify its permitting authority and take corrective actions. Following the corrective actions, the monitoring process must be repeated.
- Plant boiler operating personnel will be trained on the proper operation, maintenance and reporting requirements of the PEMS system.

The applicant has proposed to replace the CEMS to monitor NO<sub>x</sub>, CO and O<sub>2</sub> for both boilers (N-1399-17 and '-24) with a PEMS. The current conditions with references to CEMS changed to PEMS will be listed on N-1399-17 and '-24 and conditions to ensure EPA's conditions of approval will be added to each ATC:

- The owner or operator may install, certify, maintain, operate and quality-assure a Predictive Emission Monitoring System (PEMS) which continuously predicts and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. Predictive emissions monitor(s) shall be capable of predicting emissions during normal operating conditions, and during startups and shutdowns provided the PEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of PEMS cannot be demonstrated during startup conditions, PEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this permit. [District Rules 2201 and 4703 and 40 CFR 60.334(b)]
- Permittee shall monitor and record the stack concentration of NO<sub>x</sub> and CO continuously using CEMS during PEMS training period. [District Rules 2201 and 4320]
- The PEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
- Prior to disconnecting the CEMs, the PEMS must pass a Relative Accuracy (RA) Test to be acceptable for use in demonstrating compliance with this permit. [District Rules 2201 and 4703 and 40 CFR 60.334(b)]

- All conditions included in this permit pertaining to operation of the CEMS shall be kept until installation, and demonstration that all applicable PEMS requirements of PS-16 have been met including a successful initial RATA test. [District Rules 2201, 4702 and 40 CFR Subpart GG]
- The NO<sub>x</sub>, CO and O<sub>2</sub> PEMS shall meet the requirements in 40 CFR 60, Appendix B Performance Specification 16 (PS 16) or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
- Details on the design of the PEMS (PEMS protocol) as specified in PS-16, Section 6.1 must be submitted and approved by the District 60 days prior to testing the PEMS for certification. This information must include number of input parameters, parameter operating envelope, source specific operating conditions affecting PEMS output, ambient conditions affecting PEMS operation, PEMS principal of operation including physical assumptions and mathematical manipulations supporting its operation, specific details on the testing to be performed for the PEMS training, data recorder scale, sensors to be used and sensor evaluation system, plan to detect and notify operator of parameter envelope exceedences, and recordkeeping. If the boiler is operated beyond the PEMS operating envelopes at any time after the certification test, the data generated during this condition will not be acceptable for use in demonstrating compliance with applicable requirements [District Rules 2201, 4702 and 40 CFR Subpart GG]
- PEMS must be audited at least once each calendar quarter, by relative accuracy audits (RAA) except during quarters in which a RATA is performed, in accordance with EPA guidelines. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080, 2201, 4305, 4306 and 4320]
- The owner/operator shall perform an initial RATA for NO<sub>x</sub>, CO and O<sub>2</sub> within 60 days of start up. After the initial startup RATA, the facility shall conduct a RATA at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the predictive emission monitor equipment in accordance with the procedures and guidance specified in as specified by 40 CFR Part 60, Performance Specification 16. [District Rules 1080, 2201, 4305, 4306 and 4320]
- Initial PEMS relative accuracy (RA) testing (RATA) must be conducted as specified in PS-16, Section 8.2 and must include 9 test runs (RM, reference method) at each of low, medium, and high operating levels (3-level RA test). RA calculations using RM and PEMS data from the 3-level tests must be done using equations specified in PS-16, Section 12.2. [District Rules 2201, 4702 and 40 CFR Subpart GG] Y
- If PEMS fails to pass a quarterly RAA or yearly RATA test, or if changes are made that could result in a significant change in the emissions rate (e.g. turbine aging, process modification, new process operating modes, or changes to emission controls) the PEMS must be recertified by the earlier of 30 operating days or 180 calendar days after the failed RATA or after the change that has caused a significant change in emission rate as specified in PS-16, Section 8.5. [District Rules 2201, 4702 and 40 CFR Subpart GG]

- Permittee shall perform Relative Accuracy Test Audits (RATA) and Relative Accuracy Audit (RAA). RATA must not exceed +/- 20 percent absolute mean difference or 10 percent of applicable standard. For diluent PEMS, an alternative criterion of  $\pm 1$  percent absolute difference between the PEMS and RM may be used if less stringent. The RAA shall consist of at least three 30-minute portable analyzer or RM (reference method) determinations each quarter a relative accuracy test audit (RATA) is not performed as specified in Section 9.3 of EPA Performance Specification 16. An audit (RAA) is not required for a calendar quarter if the unit does not operate during that calendar quarter. The average of the 3 portable analyzer (RM) determinations must not differ from the simultaneous PEMS average value by more than 10 percent of the analyzer or RM value for concentrations greater than 100 ppmv or 20% for concentrations between 100 and 20 ppmv or the test is failed. For measurements at 20 ppmv or less, this difference shall not exceed 2 ppmv for pollutant PEMS and 1% absolute for diluent PEMS.. [District Rules 1080, 2201, 4305, 4306, 4320 and 40 CFR Subpart Db, 40 CFR Part 64]
- APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080, 2201, 4305, 4306 and 4320]
- The PEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
- Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the PEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
- The facility shall install and maintain equipment, facilities, and systems compatible with the District's PEMS data polling software system and shall make PEMS data available to the District's automated polling system on a daily basis. [District Rule 1080]
- Upon notice by the District that the facility's PEMS 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 PEMS data is sent to the District by a District-approved alternative method. [District Rule 1080]
- The permittee shall maintain the following records for PEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which PEMS was inoperative. [District Rule 1080]
- The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NO<sub>x</sub> and CO emission rates (expressed as NO<sub>2</sub>) (ppmvd @ 3% O<sub>2</sub> and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NO<sub>x</sub> emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;

(4) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NO<sub>x</sub> and CO emission rates are in excess of the NO<sub>x</sub> and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the PEMS; (10) Description of any modifications to the PEMS that could affect the ability of the PEMS to comply with Performance Specification 16; (11) Results of daily PEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)]

Section 5.7.3 requires the operator to install and maintain a non-resettable, totalizing mass or volumetric flow meter for the units.

- A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in this unit shall be installed, utilized and maintained. [District Rule 2201, 40 CFR 60.49b(d)(1)] N

Section 5.7.4 specifically allows for operators at seasonal sources subject to 40 CFR 60, Subpart Db to implement an APCO approved parametric monitoring system (PMS) for compliance with federal emission limits provided the boiler is fired solely on California PUC quality natural gas and the applicable District emission limit for NO<sub>x</sub> is more stringent than the limit in 40 CFR 60, Subpart Db. Both of these conditions are satisfied therefore compliance with this section is expected.

Section 5.7.6 requires the operator to provide annual fuel sulfur content analysis. The following conditions will satisfy the requirements of this section:

- The owner or operator shall either obtain fuel receipts (such as a valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets definition of natural gas (as defined in 40 CFR 60.41b) and the applicable sulfur limit (i.e., 1.0 gr-S/100 scf), or demonstrate that the combusted gas is provided from a PUC or FERC regulated source, or monitor the sulfur content within 60 days of initial startup and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel



sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 4320, 40 CFR 60.45b(j), 60.49b(r)(2)]

- Fuel sulfur content shall be determined using EPA Method 11 or EPA Method 15 or District, CARB and EPA approved alternative methods. [District Rule 4320]

Section 5.8 discusses compliance determination.

Section 5.8.1 states the operator of any unit have the option of complying with either the applicable heat input (lb/MMBtu) emission limits or the concentration (ppmv) emission limit. The applicant has proposed to comply with the concentrations (ppmv) limit. Therefore, compliance is expected with this section.

- The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320]

Section 5.8.2 requires all emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. The following conditions will be listed in permits N-1399-17 and '-24:

- All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320]

Section 5.8.3 requires that all CEMS data shall be averaged over a period of 15-consecutive minutes to demonstrate compliance with the applicable emission limits in this rule. The following conditions will be listed in permits N-1399-17 and '-24:

- The PEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]

Section 5.8.4 requires emissions monitoring pursuant to Sections 5.7.1, and 6.3.1 using a portable NO<sub>x</sub> analyzer as part of an APCO approved Alternate Emissions Monitoring System, emission readings shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15-consecutive-minute sample reading or by taking at least five readings evenly spaced out over the 15-consecutive-minute period. These boilers are complying with section 5.7.1 by implementing a PEMS, however as a condition of approval for the PEMS, EPA has required monthly monitoring with a portable analyzer. This condition of approval is enforced by the conditions listed below.

- The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. The portable analyzer results will be compared to the PEMS data. If the average emissions value measured with calibrated portable analyzer differs from the simultaneous PEMS average emissions value by more than the amounts allowed in section 13.5 of PS16, the permittee must notify its permitting authority and take corrective actions. Following the corrective actions, the permittee must repeat the monitoring process. [40 CFR 60 PS16] N
- The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [40 CFR 60 PS16] N

Section 5.8.5 requires that for emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation of this rule, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. The following conditions will be listed in permits N-1399-17 and '-24:

- For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320]

#### *Section 6.0 – Administrative Requirements*

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.3 shall be maintained for five calendar years and shall be made available to the APCO upon request. Failure to maintain records or information contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule. The following conditions will be listed in permits N-1399-17 and '-24:

- The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)]

Section 6.2 identifies the test methods for determining higher heating value of fuel, NO<sub>x</sub>, CO, O<sub>2</sub>, stack gas velocities, and stack gas moisture content. The following conditions will be listed on each permit. The following conditions will be listed in permits N-1399-17 and '-24:

- Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
- NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or CARB Method 100 on a ppmv basis. [District Rules 4305, 4306 and 4320]

- CO emissions for source test purposes shall be determined using EPA Method 10 or CARB Method 100. [District Rules 4305, 4306 and 4320]
- Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or CARB Method 100. [District Rules 4305, 4306 and 4320]

In addition, the ammonia slip is required to be measured using BAAQMD Method ST-1B. The following condition will be included in permit N-1399-24:

- Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 2201]

Section 6.3.1 requires that this unit be tested to determine compliance with the applicable requirements of section 5.1 and 5.2.3 not less than once every 12 months. Units that demonstrate compliance on two consecutive 12-month source tests may defer the following 12-month source test for up to 36 months (no more than 30 days before or after the required 36-month source test date). During the 36-month source testing interval, the operator shall tune the unit in accordance with the provisions of Section 5.2.1, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer to ensure compliance with the applicable emission limits specified in Sections 5.1 or 5.2.3. Tune-ups required by Sections 5.2.1 and 6.3.1 do not need to be performed for units that operate and maintain an APCO approved CEMS or an APCO approved Alternate Monitoring System where the applicable emission limits are periodically monitored.

N-1399-17-6:

NO<sub>x</sub>, CO and O<sub>2</sub> concentrations will be measured using PEMS. Therefore, no periodic tune-ups are required.

The applicant is not proposing any changes to the existing NO<sub>x</sub> or CO emission factor; therefore, initial testing is not required for these pollutants. Note that applicant had conducted source test on this unit in October 2012, to measure PM<sub>10</sub> emissions. The measured value was 0.0064 lb/MMBtu, which is less than the proposed value of 0.0073 lb/MMBtu, and therefore, PM<sub>10</sub> testing is not required. The following conditions will be listed in permit N-1399-17:

- Source testing to measure NO<sub>x</sub> and CO emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every 12 months. [District Rules 4305, 4306 and 4320]

N-1399-24-2:

NO<sub>x</sub>, CO and O<sub>2</sub> concentrations will be measured using PEMS. Therefore, no periodic tune-ups are required. The following conditions will be listed in permit N-1399-24:

- Source testing to measure NO<sub>x</sub>, CO and NH<sub>3</sub> emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2

consecutive annual source tests, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every 12 months. [District Rules 4305, 4306 and 4320]

Section 6.3.2 lists compliance testing procedure for units that represent a group of units. The heat input rate of the boilers at this site significantly varies from one boiler to another; therefore, group testing cannot be considered.

Section 6.4 discusses emission control plan (ECP). The permit application for the proposed boiler satisfies the requirements of the Emission Control Plan. No further discussion is necessary.

*Section 7.0 – Compliance Schedule*

This section refers to “Authority to Construct” and “Compliance Deadline” dates. The compliance deadline has long been passed for these units. Source testing indicates that these units are operating in compliance with the requirements of this rule.

Compliance is expected with this Rule.

**Rule 4351 Boilers, Steam Generators, and Process Heaters – Phase 1**

Since the emission limits of District Rule 4306 and 4320 and all other requirements are equivalent or more stringent than this Rule, compliance with District Rule 4306 and 4320 requirements will satisfy requirements of District Rule 4351.

**Rule 4801 Sulfur Compounds**

Section 3.1 states that a person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding a concentration of two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO<sub>2</sub>) at the point of discharge on a dry basis averaged over 15 consecutive minutes.

For the proposed gaseous fuel combustion at a reference state of 60 °F, the Rule 4801 limit of 2,000 ppmvd is equivalent to:

$$\frac{(2000 \text{ ppmvd}) \left( 8,578 \frac{\text{dscf}}{\text{MMBtu}} \right) \left( 64 \frac{\text{lb} - \text{SO}_x}{\text{lb} - \text{mol}} \right)}{\left( 379.5 \frac{\text{dscf}}{\text{lb} - \text{mol}} \right) (10^6)} \cong 2.9 \frac{\text{lb} - \text{SO}_x}{\text{MMBtu}}$$

SO<sub>x</sub> emissions from the boilers are based on 1.0 gr-S/100 scf, equivalent to 0.00285 lb/MMBtu. Since these emissions are less than 2.9 lb/MMBtu, it is expected that each boiler will operate in compliance with this Rule.

### **California Health & Safety Code 42301.6 (School Notice)**

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

### **California Environmental Quality Act (CEQA)**

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The District performed an Engineering Evaluation (this document) for the proposed project and determined that all project specific emission unit(s) are exempt from Best Available Control Technology (BACT) requirements. Furthermore, the District has determined that potential emission increases would have a less than significant health impact on sensitive receptors.

Issuance of permits for emissions units not subject to BACT requirements and with health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

### **IX. Recommendation**

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC N-1399-17-6 and N-1399-24-2 subject to the permit conditions on the attached draft ATCs in **Appendix A**.

**X. Billing Information**

<b>Annual Permit Fees</b>			
<b>Permit Number</b>	<b>Fee Schedule</b>	<b>Fee Description</b>	<b>Annual Fee</b>
N-1399-17-6	3020-02-H	263 MMBtu/hr boiler	\$1080.00
N-1399-24-2	3020-02-H	458.5 MMBtu/hr boiler	\$1080.00

**Appendixes**

- A: Draft ATCs
- B: Current ATCs/PTOs
- C: SSPE2 Calculations
- D: Quarterly Net Emissions Change
- E: EPA Approval Letter
- F: EPA Comments and District Response

**APPENDIX A**  
**Draft ATCs**

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

**ISSUANCE DATE:** DRAFT

**PERMIT NO:** N-1399-17-6

**LEGAL OWNER OR OPERATOR:** LIBERTY PACKING CO - THE MORNING STAR CO  
**MAILING ADDRESS:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**LOCATION:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 260 MMBTU/HR NEBRASKA MODEL N2S-8/S-100-ECON NATURAL GAS-FIRED BOILER WITH A TODD DRMB ULTRA LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION (BOILER NO. 1); CORRECT BURNER RATING TO 263 MMBTU/HR, REMOVE AND REPLACE CONTINUOUS EMISSION MONITORING SYSTEM WITH PREDICTIVE EMISSIONS MONITORING SYSTEM

**CONDITIONS**

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct N-1399-17-5 shall be implemented prior to or simultaneously to the implementation of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100] Federally Enforceable Through Title V Permit
5. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100] 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

Arnaud Marjollet, Director of Permit Services

N-1399-17-6 : May 26 2016 4:30PM - OGDENA : Joint Inspection NOT Required



6. The facility-wide NO<sub>x</sub> emissions shall not exceed 33,705 pounds during any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
8. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
10. The unit shall only be fired on PUC-quality natural gas with a sulfur content of no greater than 1.0 grains (gr) of sulfur per 100 standard cubic feet (scf) of natural gas. [District Rules 2201 and 4320, 40 CFR 60.42b9k)(1)(2)] Federally Enforceable Through Title V Permit
11. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in this unit shall be installed, utilized and maintained. [District Rule 2201, 40 CFR 60.49b(d)(1)] Federally Enforceable Through Title V Permit
12. Heat input to this unit shall not exceed either of the following: 260 MMBtu/hr and 1,059,019 MMBtu during any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During start-up or shutdown, the emissions control system (i.e. FGR system) shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
14. The startup duration shall not exceed 2.0 hours per day. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
15. The shutdown duration shall not exceed 1.0 hour per day. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
16. The total duration of startups and shutdowns shall not exceed 41 hours during any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
17. SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
18. PM<sub>10</sub> emissions shall not exceed 0.0074 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
19. VOC emissions shall not exceed 10 ppmvd @ 3% O<sub>2</sub> or 0.0042 lb/MMBtu, referenced as methane. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The owner or operator may install, certify, maintain, operate and quality-assure a Predictive Emission Monitoring System (PEMS) which continuously predicts and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. Predictive emissions monitor(s) shall be capable of predicting emissions during normal operating conditions, and during startups and shutdowns provided the PEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of PEMS cannot be demonstrated during startup conditions, PEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this permit. [District Rules 2201 and 4320, and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
21. Prior to disconnecting the CEMs, the PEMS must pass a Relative Accuracy (RA) Test to be acceptable for use in demonstrating compliance with this permit. [District Rules 2201 and 4703 and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
22. All conditions included in this permit pertaining to operation of the CEMS shall be kept until installation, and demonstration that all applicable PEMS requirements of PS-16 have been met including a successful initial RATA test. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

23. Upon installation of PEMS equipment, emissions shall not exceed 7 ppmv NO<sub>x</sub> or 50 ppmv CO during initial PEMS training and testing for greater than 10 hours in any one day or a total of 16 hours. Initial PEMS training and testing period shall not exceed 30 consecutive days. [District Rule 2201]
24. During startup and shutdown and initial PEMS training, NO<sub>x</sub> emissions shall not exceed 30.0 ppmvd @ 3% O<sub>2</sub> or 0.036 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
25. During startup and shutdown and initial PEMS training, CO emissions shall not exceed 200 ppmvd @ 3% O<sub>2</sub> or 0.148 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
26. Except during startup and shutdown and initial 30-day PEMS training, NO<sub>x</sub> emissions shall not exceed 7 ppmvd @ 3% O<sub>2</sub> or 0.008 lb/MMBtu, referenced as NO<sub>2</sub> over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
27. Except during startup and shutdown and initial 30-day PEMS training, CO emissions shall not exceed 50 ppmvd @ 3% O<sub>2</sub> or 0.037 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
28. Permittee shall monitor and record the stack concentration of NO<sub>x</sub> and CO continuously using CEMS during PEMS training period. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
29. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. The sampling ports shall be located in accordance with the CARB 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
30. The initial PEMS training and testing and source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
31. Permittee shall perform a relative accuracy audit (RAA) consisting of at least three 30-minute portable analyzer or RM (reference method) determinations each quarter a relative accuracy test audit (RATA) is not performed as specified in Section 9.3 of EPA Performance Specification 16. The average of the 3 portable analyzer (RM) determinations must not differ from the simultaneous PEMS average value by more than 2 ppmv for pollutant PEMS and 1% absolute for diluent PEMS. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
32. PEMS relative accuracy for NO<sub>x</sub> and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). [District Rule 2201] Federally Enforceable Through Title V Permit
33. Source testing to measure NO<sub>x</sub> and CO emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every 12 months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
34. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
35. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
36. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

37. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320] Federally Enforceable Through Title V Permit
38. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
39. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
40. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
41. 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
42. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. The portable analyzer results will be compared to the PEMS data. The average emissions value measured with calibrated portable analyzer must not differ from the simultaneous PEMS average emissions value by more than 2 ppmv for pollutant PEMS and 1% absolute for diluent PEMS. [40 CFR 60 PS16] Federally Enforceable Through Title V Permit
43. The permittee shall maintain records of the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, the measured NO<sub>2</sub> and CO concentrations corrected to 3% O<sub>2</sub>, and the O<sub>2</sub> concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be maintained, retained on-site for a period of at least five years and made available for District inspection upon request [40 CFR 60 PS16] Federally Enforceable Through Title V Permit
44. Details on the design of the PEMS (PEMS protocol) as specified in PS-16, Section 6.1 must be submitted and approved by the District 60 days prior to testing the PEMS for certification. This information must include number of input parameters, parameter operating envelope, source specific operating conditions affecting PEMS output, ambient conditions affecting PEMS operation, PEMS principal of operation including physical assumptions and mathematical manipulations supporting its operation, specific details on the testing to be performed for the PEMS training, data recorder scale, sensors to be used and sensor evaluation system, plan to detect and notify operator of parameter envelope exceedences, and recordkeeping. If the boiler is operated beyond the PEMS operating envelopes at any time after the certification test, the data generated during this condition will not be acceptable for use in demonstrating compliance with applicable requirements [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
45. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the PEMS. [40 CFR 60.48b(e)] Federally Enforceable Through Title V Permit
46. The PEMS shall be operated and data recorded during all periods of operation except for PEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)] Federally Enforceable Through Title V Permit
47. The PEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

48. Permittee shall perform Relative Accuracy Test Audits (RATA) and Relative Accuracy Audit (RAA). RATA must not exceed +/- 20 percent absolute mean difference or 10 percent of applicable standard. For diluent PEMS, an alternative criterion of  $\pm 1$  percent absolute difference between the PEMS and RM may be used if less stringent. The RAA shall consist of at least three 30-minute portable analyzer or RM (reference method) determinations each quarter a relative accuracy test audit (RATA) is not performed as specified in Section 9.3 of EPA Performance Specification 16. An audit (RAA) is not required for a calendar quarter if the unit does not operate during that calendar quarter. The average of the 3 portable analyzer (RM) determinations must not differ from the simultaneous PEMS average value by more than 10 percent of the analyzer or RM value for concentrations greater than 100 ppmv or 20% for concentrations between 100 and 20 ppmv or the test is failed. For measurements at 20 ppmv or less, this difference shall not exceed 2 ppmv for pollutant PEMS and 1% absolute for diluent PEMS.. [District Rules 1080, 2201, 4305, 4306, 4320 and 40 CFR Subpart Db, 40 CFR Part 64] Federally Enforceable Through Title V Permit
49. The NO<sub>x</sub>, CO and O<sub>2</sub> PEMS shall meet the requirements in 40 CFR 60, Appendix B, Performance Specification 16 (PS 16) or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
50. The PEMS sensor evaluation system shall check the integrity of each input at least once per day. [District Rule 1080] Federally Enforceable Through Title V Permit
51. Initial PEMS relative accuracy (RA) testing (RATA) must be conducted as specified in PS-16, Section 8.2 and must include 9 test runs (RM, reference method) at each of low, medium, and high operating levels (3-level RA test). RA calculations using RM and PEMS data from the 3-level tests must be done using equations specified in PS-16, Section 12.2. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
52. If PEMS fails to pass a quarterly RAA or yearly RATA test, or if changes are made that could result in a significant change in the emissions rate (e.g. turbine aging, process modification, new process operating modes, or changes to emission controls) the PEMS must be recertified by the earlier of 30 operating days or 180 calendar days after the failed RATA or after the change that has caused a significant change in emission rate as specified in PS-16, Section 8.5. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
53. The owner/operator shall perform an initial RATA for NO<sub>x</sub>, CO and O<sub>2</sub> within 60 days of installation of the PEMS. After the initial startup RATA, the facility shall conduct a RATA at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the predictive emission monitor equipment in accordance with the procedures and guidance specified in as specified by 40 CFR Part 60, Appendix B Performance Specification 16. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
54. PEMS must be audited at least once each calendar quarter, by relative accuracy audits (RAA) except during quarters in which a RATA is performed, in accordance with EPA guidelines. An audit (RAA) is not required for a calendar quarter if the unit does not operate during that calendar quarter. Audit reports shall be submitted along with quarterly compliance reports to the District [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
55. If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, the permittee may elect to perform a single mid-year RAA in the second year in place of the quarterly RAAs as specified in Section 9.3 of EPA Performance Specification 16. If a quarterly audit is missed due to the unit not operating, the audit shall be conducted in the next operating quarter. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA. When such a failure occurs, the operator must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
56. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
57. The PEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

58. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the PEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
59. The facility shall install and maintain equipment, facilities, and systems compatible with the District's PEMS data polling software system and shall make PEMS data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
60. Upon notice by the District that the facility's PEMS 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 PEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
61. The permittee shall maintain the following records for PEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which PEMS was inoperative. [District Rule 1080] Federally Enforceable Through Title V Permit
62. The owner or operator shall submit the performance test data and the performance evaluation of the PEMS using performance specification PS16 for PEMS certification in 40 CFR Part 60. [40 CFR 60] Federally Enforceable Through Title V Permit
63. An O&M manual containing detailed system requirements shall be prepared and submitted for approval along with the monitoring plan required under 40 CFR 60.49b(c). [40 CFR 60.49b(c)] Federally Enforceable Through Title V Permit
64. For 40 CFR Part 60 Subpart Db purpose, NO<sub>x</sub> emissions shall not exceed 0.1 lb/MMBtu for low heat release units (70,000 Btu/hr-ft<sup>3</sup> of furnace volume or less) and 0.2 lb/MMBtu for high heat release units (greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume) on a 30-day rolling average basis. NO<sub>x</sub> standard shall apply at all times including periods of startup, shutdown, or malfunction. The permittee shall maintain record of the furnace volume, which is defined as the volume bounded by the front furnace wall where the burner is located, the furnace side waterfall, and extending to the level just below or in front of the first row of convection pass tubes. [40 CFR 60.44b(a), 60.44b(h), 60.44b(i)] Federally Enforceable Through Title V Permit
65. For the initial compliance test under 40 CFR Part 60 Subpart Db, NO<sub>x</sub> emissions shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate shall be used to determine compliance with the NO<sub>x</sub> emission standard under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. [40 CFR 60.46b(e)(1)] Federally Enforceable Through Title V Permit
66. Following the initial compliance test, the operator shall determine compliance with the NO<sub>x</sub> standard under 40 CFR 60.44 (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)) on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(3)] Federally Enforceable Through Title V Permit
67. The 1-hour average NO<sub>x</sub> emission rates measured by the continuous NO<sub>x</sub> monitor shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). [40 CFR 60.48b(d)] Federally Enforceable Through Title V Permit
68. When NO<sub>x</sub> data are not obtained because of PEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)] Federally Enforceable Through Title V Permit
69. The owner or operator shall maintain records of the amount of fuel combusted during each day in this unit. [District Rule 2201 and 40 CFR 60.49b(d)(1)] Federally Enforceable Through Title V Permit

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70. The owner or operator shall maintain records of the annual capacity factor on a monthly basis. The annual capacity factor shall be 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
71. The owner or operator shall either obtain fuel receipts (such as a valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets definition of natural gas (as defined in 40 CFR 60.41b) and the applicable sulfur limit (i.e., 1.0 gr-S/100 scf), or demonstrate that the combusted gas is provided from a PUC or FERC regulated source, or monitor the sulfur content within 60 days of initial startup and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 4320, 40 CFR 60.45b(j), 60.49b(r)(2)] Federally Enforceable Through Title V Permit
72. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NOx and CO emission rates (expressed as NO2) (ppmvd @ 3% O2 and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NOx emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NOx and CO emission rates are in excess of the NOx and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the PEMS; (10) Description of any modifications to the PEMS that could affect the ability of the PEMS to comply with Performance Specification 16; (11) Results of daily PEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)] Federally Enforceable Through Title V Permit
73. The owner or operator of an affected facility may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. 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 permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 40 CFR 60.49b(v)] Federally Enforceable Through Title V Permit
74. The owner or operator shall keep records of the date, duration of each startup (hours), and duration of each shutdown (hours). [District Rule 2201] Federally Enforceable Through Title V Permit
75. The owner or operator shall keep records of the total duration of startups and shutdowns (hours) on a rolling 12 consecutive month total basis, and shall be updated at least monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
76. The owner or operator shall keep record of the facility-wide NOx emissions (in pounds). The record shall be on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

77. The owner or operator shall keep record of the annual heat input to this unit (in MMBtu). The record shall be kept on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201] Federally Enforceable Through Title V Permit
78. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)] Federally Enforceable Through Title V Permit
79. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. CEMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.48b(1)] Federally Enforceable Through Title V Permit
80. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the CEMS. [40 CFR 60.48b(e)] Federally Enforceable Through Title V Permit
81. The CEMS shall be operated and data recorded during all periods of operation except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)] Federally Enforceable Through Title V Permit
82. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
83. The NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2) for NO<sub>x</sub>, Appendix B PS 4A for CO, and Appendix B PS 3 for O<sub>2</sub> or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
84. In accordance with 40 CFR Part 60, Appendix F, 5.1, NO<sub>x</sub>, CO and O<sub>2</sub> CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
85. The owner/operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F, 5.1.1, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CEMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
86. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
87. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
88. The facility 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] Federally Enforceable Through Title V Permit
89. Upon notice by the District that the facility's CEMS 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] Federally Enforceable Through Title V Permit

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90. The permittee shall maintain the following records for CEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CEMS was inoperative. [District Rule 1080] Federally Enforceable Through Title V Permit
91. The owner or operator shall submit the performance test data and the performance evaluation of the CEMS using performance specification 2 (PS 2) for NO<sub>x</sub>, PS 4A for CO, and PS3 for O<sub>2</sub> in 40 CFR Part 60 Appendix B. [40 CFR 60.49b(b)] Federally Enforceable Through Title V Permit
92. When NO<sub>x</sub> data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)] Federally Enforceable Through Title V Permit
93. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NO<sub>x</sub> and CO emission rates (expressed as NO<sub>2</sub>) (ppmvd @ 3% O<sub>2</sub> and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NO<sub>x</sub> emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NO<sub>x</sub> and CO emission rates are in excess of the NO<sub>x</sub> and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the CEMS; (10) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 or 4A; (11) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)] Federally Enforceable Through Title V Permit

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

**ISSUANCE DATE: DRAFT**

**PERMIT NO:** N-1399-24-2

**LEGAL OWNER OR OPERATOR:** LIBERTY PACKING CO - THE MORNING STAR CO  
**MAILING ADDRESS:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**LOCATION:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 471 MMBTU/HR CLEAVER BROOKS MODEL NB-ED-110 BOILER EQUIPPED WITH A COEN MODEL VARIFLAME LOW NOX BURNER INDUCED FLUE GAS RECIRCULATION SERVED BY A CADASTACK (OR OTHER MANUFACTURER) SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM: CORRECT BURNER RATING TO 458.5 MMBTU/HR, REMOVE AND REPLACE CONTINUOUS EMISSION MONITORING SYSTEM WITH PREDICTIVE EMISSIONS MONITORING SYSTEM

**CONDITIONS**

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct N-1399-24-1 shall be implemented prior to or simultaneously to the implementation of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100] Federally Enforceable Through Title V Permit
5. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100] Federally Enforceable Through Title V Permit

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**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

Arnaud Marjollet, Director of Permit Services

N-1399-24-2, May 26 2016 4:30PM - OGDENA : Joint Inspection NOT Required

6. The facility-wide NOx emissions shall not exceed 33,705 pounds during any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
8. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
10. The unit shall only be fired on PUC-quality natural gas with a sulfur content of no greater than 1.0 grains (gr) of sulfur per 100 standard cubic feet (scf) of natural gas. [District Rules 2201 and 4320, 40 CFR 60.42b9k(1)(2)] Federally Enforceable Through Title V Permit
11. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in this unit shall be installed, utilized and maintained. [District Rule 2201, 40 CFR 60.49b(d)(1)] Federally Enforceable Through Title V Permit
12. Heat input to this unit shall not exceed 1,271,700 MMBtu during any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
13. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
14. The startup duration shall not exceed 4.0 hours per day. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
15. The shutdown duration shall not exceed 1.0 hour per day. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
16. The total duration of startups and shutdowns shall not exceed 41 hours during any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Upon installation of PEMS equipment, emissions shall not exceed 5 ppmv NOx or 50 ppmv CO during initial PEMS training and testing for greater than 10 hours in any one day or a total of 16 hours. Initial PEMS training and testing period shall not exceed 30 consecutive days. [District Rule 2201]
18. During startup and shutdown and initial 30-day PEMS training, NOx emissions shall not exceed 30.0 ppmvd @ 3% O2 or 0.036 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
19. During startup and shutdown and initial 30-day PEMS training, CO emissions shall not exceed 200 ppmvd @ 3% O2 or 0.148 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
20. Except during startup, shutdown and initial PEMS training, NOx emissions shall not exceed 5 ppmvd @ 3% O2 or 0.0062 lb/MMBtu, referenced as NO2 over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
21. Except during startup, shutdown and initial PEMS training, CO emissions shall not exceed 50 ppmvd @ 3% O2 or 0.037 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)] Federally Enforceable Through Title V Permit
22. Permittee shall monitor and record the stack concentration of NOx and CO continuously using CEMS during PEMS training period. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
23. SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. PM10 emissions shall not exceed 0.003 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

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25. VOC emissions shall not exceed 5 ppmvd @ 3% O<sub>2</sub> or 0.002 lb/MMBtu, referenced as methane. [District Rule 2201] Federally Enforceable Through Title V Permit
26. NH<sub>3</sub> emissions shall not exceed 10 ppmvd @ 3% O<sub>2</sub>. [District Rule 2201] Federally Enforceable Through Title V Permit
27. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. The portable analyzer results will be compared to the PEMS data. The average emissions value measured with calibrated portable analyzer must not differ from the simultaneous PEMS average emissions value by more than 2 ppmv for pollutant PEMS and 1% absolute for diluent PEMS. [40 CFR 60 PS16] Federally Enforceable Through Title V Permit
28. PEMS relative accuracy for NO<sub>x</sub> and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). [District Rule 2201] Federally Enforceable Through Title V Permit
29. The permittee shall maintain records of the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, the measured NO<sub>2</sub> and CO concentrations corrected to 3% O<sub>2</sub>, and the O<sub>2</sub> concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be maintained, retained on-site for a period of at least five years and made available for District inspection upon request [40 CFR 60 PS16] Federally Enforceable Through Title V Permit
30. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. The sampling ports shall be located in accordance with the CARB 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
31. The initial PEMS training and testing and source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
32. Source testing to measure NO<sub>x</sub>, CO and NH<sub>3</sub> emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every 12 months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
33. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
34. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
35. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
36. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320] Federally Enforceable Through Title V Permit
37. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 2201] Federally Enforceable Through Title V Permit
38. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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39. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
40. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
41. 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
42. The owner or operator may install, certify, maintain, operate and quality-assure a Predictive Emission Monitoring System (PEMS) which continuously predicts and records the exhaust gas NOX, CO and O2 concentrations. Predictive emissions monitor(s) shall be capable of predicting emissions during normal operating conditions, and during startups and shutdowns provided the PEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of PEMS cannot be demonstrated during startup conditions, PEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this permit. [District Rules 2201, and 4320, 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
43. All conditions included in this permit pertaining to operation of the CEMS shall be kept until installation, and demonstration that all applicable PEMS requirements of PS-16 have been met including a successful initial RATA test. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
44. Prior to disconnecting the CEMs, the PEMS must pass a Relative Accuracy (RA) Test to be acceptable for use in demonstrating compliance with this permit. [District Rules 2201 and 4703 and 40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
45. Details on the design of the PEMS (PEMS protocol) as specified in PS-16, Section 6.1 must be submitted and approved by the District 60 days prior to testing the PEMS for certification. This information must include number of input parameters, parameter operating envelope, source specific operating conditions affecting PEMS output, ambient conditions affecting PEMS operation, PEMS principal of operation including physical assumptions and mathematical manipulations supporting its operation, specific details on the testing to be performed for the PEMS training, data recorder scale, sensors to be used and sensor evaluation system, plan to detect and notify operator of parameter envelope exceedences, and recordkeeping. If the boiler is operated beyond the PEMS operating envelopes at any time after the certification test, the data generated during this condition will not be acceptable for use in demonstrating compliance with applicable requirements [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
46. The owner or operator shall monitor and record the stack concentration of NH3 at least once during each month in which source testing is not performed. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit(s) unless it has been performed within the last month. [District Rule 2201] Federally Enforceable Through Title V Permit
47. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the PEMS. [40 CFR 60.48b(e)] Federally Enforceable Through Title V Permit
48. The PEMS shall be operated and data recorded during all periods of operation except for PEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)] Federally Enforceable Through Title V Permit
49. The PEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
50. The NOx, CO and O2 PEMS shall meet the requirements in 40 CFR 60, Appendix B, Performance Specification 16 (PS 16) or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

51. The PEMS sensor evaluation system shall check the integrity of each input at least once per day. [District Rule 1080] Federally Enforceable Through Title V Permit
52. The owner/operator shall perform an initial RATA for NO<sub>x</sub>, CO and O<sub>2</sub> within 60 days of installation of the PEMS. After the initial startup RATA, the facility shall conduct a RATA at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the predictive emission monitor equipment in accordance with the procedures and guidance specified in as specified by 40 CFR Part 60, Appendix B Performance Specification 16. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
53. Initial PEMS relative accuracy (RA) testing (RATA) must be conducted as specified in PS-16, Section 8.2 and must include 9 test runs (RM, reference method) at each of low, medium, and high operating levels (3-level RA test). RA calculations using RM and PEMS data from the 3-level tests must be done using equations specified in PS-16, Section 12.2. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
54. PEMS must be audited at least once each calendar quarter, by relative accuracy audits (RAA) except during quarters in which a RATA is performed, in accordance with EPA guidelines. An audit (RAA) is not required for a calendar quarter if the unit does not operate during that calendar quarter. Audit reports shall be submitted along with quarterly compliance reports to the District [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
55. Permittee shall perform Relative Accuracy Test Audits (RATA) and Relative Accuracy Audit (RAA). RATA must not exceed +/- 20 percent absolute mean difference or 10 percent of applicable standard. For diluent PEMS, an alternative criterion of ±1 percent absolute difference between the PEMS and RM may be used if less stringent. The RAA shall consist of at least three 30-minute portable analyzer or RM (reference method) determinations each quarter a relative accuracy test audit (RATA) is not performed as specified in Section 9.3 of EPA Performance Specification 16. An audit (RAA) is not required for a calendar quarter if the unit does not operate during that calendar quarter. The average of the 3 portable analyzer (RM) determinations must not differ from the simultaneous PEMS average value by more than 2 ppmv for pollutant PEMS and 1% absolute for diluent PEMS. [District Rules 1080, 2201, 4305, 4306, 4320 and 40 CFR Subpart Db, 40 CFR Part 64] Federally Enforceable Through Title V Permit
56. If a PEMS passes all quarterly RAAs in the first year and also passes the subsequent yearly RATA in the second year, the permittee may elect to perform a single mid-year RAA in the second year in place of the quarterly RAAs as specified in Section 9.3 of EPA Performance Specification 16. If a quarterly audit is missed due to the unit not operating, the audit shall be conducted in the next operating quarter. This option may be repeated, but only until the PEMS fails either a mid-year RAA or a yearly RATA. When such a failure occurs, the operator must resume quarterly RAAs in the quarter following the failure and continue conducting quarterly RAAs until the PEMS successfully passes both a year of quarterly RAAs and a subsequent RATA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
57. If PEMS fails to pass a quarterly RAA or yearly RATA test, or if changes are made that could result in a significant change in the emissions rate (e.g. turbine aging, process modification, new process operating modes, or changes to emission controls) the PEMS must be recertified by the earlier of 30 operating days or 180 calendar days after the failed RATA or after the change that has caused a significant change in emission rate as specified in PS-16, Section 8.5. [District Rules 2201, 4702 and 40 CFR Subpart GG] Federally Enforceable Through Title V Permit
58. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
59. The PEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
60. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the PEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

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61. The facility shall install and maintain equipment, facilities, and systems compatible with the District's PEMS data polling software system and shall make PEMS data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
62. Upon notice by the District that the facility's PEMS 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 PEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
63. The permittee shall maintain the following records for PEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which PEMS was inoperative. [District Rule 1080] Federally Enforceable Through Title V Permit
64. The owner or operator shall submit the performance test data and the performance evaluation of the PEMS using performance specification PS16 for PEMS certification in 40 CFR Part 60. [40 CFR 60.49b(b)] Federally Enforceable Through Title V Permit
65. An O&M manual containing detailed system requirements shall be prepared and submitted for approval along with the monitoring plan required under 40 CFR 60.49b(c). [40 CFR 60.49b(c)] Federally Enforceable Through Title V Permit
66. For 40 CFR Part 60 Subpart Db purpose, NO<sub>x</sub> emissions shall not exceed 0.1 lb/MMBtu for low heat release units (70,000 Btu/hr-ft<sup>3</sup> of furnace volume or less) and 0.2 lb/MMBtu for high heat release units (greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume) on a 30-day rolling average basis. NO<sub>x</sub> standard shall apply at all times including periods of startup, shutdown, or malfunction. The permittee shall maintain record of the furnace volume, which is defined as the volume bounded by the front furnace wall where the burner is located, the furnace side waterfall, and extending to the level just below or in front of the first row of convection pass tubes. [40 CFR 60.44b(a), 60.44b(h), 60.44b(i)] Federally Enforceable Through Title V Permit
67. For the initial compliance test under 40 CFR Part 60 Subpart Db, NO<sub>x</sub> emissions shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate shall be used to determine compliance with the NO<sub>x</sub> emission standard under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. [40 CFR 60.46b(e)(1)] Federally Enforceable Through Title V Permit
68. Following the initial compliance test, the operator shall determine compliance with the NO<sub>x</sub> standard under 40 CFR 60.44 (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)) on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(3)] Federally Enforceable Through Title V Permit
69. The 1-hour average NO<sub>x</sub> emission rates measured by the continuous NO<sub>x</sub> monitor shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). [40 CFR 60.48b(d)] Federally Enforceable Through Title V Permit
70. When NO<sub>x</sub> data are not obtained because of PEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)] Federally Enforceable Through Title V Permit
71. The owner or operator shall maintain records of the amount of fuel combusted during each day in this unit. [District Rule 2201 and 40 CFR 60.49b(d)(1)] Federally Enforceable Through Title V Permit
72. The owner or operator shall maintain records of the annual capacity factor on a monthly basis. The annual capacity factor shall be 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

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73. The owner or operator shall either obtain fuel receipts (such as a valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets definition of natural gas (as defined in 40 CFR 60.41b) and the applicable sulfur limit (i.e., 1.0 gr-S/100 scf), or demonstrate that the combusted gas is provided from a PUC or FERC regulated source, or monitor the sulfur content within 60 days of initial startup and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 4320, 40 CFR 60.45b(j), 60.49b(r)(2)] Federally Enforceable Through Title V Permit
74. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NOx and CO emission rates (expressed as NO2) (ppmvd @ 3% O2 and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NOx emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NOx and CO emission rates are in excess of the NOx and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the PEMS; (10) Description of any modifications to the PEMS that could affect the ability of the PEMS to comply with Performance Specification 16; (11) Results of daily PEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)] Federally Enforceable Through Title V Permit
75. The owner or operator of an affected facility may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. 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 permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 40 CFR 60.49b(v)] Federally Enforceable Through Title V Permit
76. The owner or operator shall keep records of the date and time, measured NH<sub>3</sub> concentration, O<sub>2</sub> concentration in percent, and NH<sub>3</sub> concentration corrected to 3% O<sub>2</sub>. [District Rule 2201] Federally Enforceable Through Title V Permit
77. The owner or operator shall keep records of the date, duration of each startup (hours), and duration of each shutdown (hours). [District Rule 2201] Federally Enforceable Through Title V Permit
78. The owner or operator shall keep records of the total duration of startups and shutdowns (hours) on a rolling 12 consecutive month total basis, and shall be updated at least monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
79. The owner or operator shall keep record of the facility-wide NOx emissions (in pounds). The record shall be on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201] Federally Enforceable Through Title V Permit

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80. The owner or operator shall keep record of the annual heat input to this unit (in MMBtu). The record shall be kept on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201] Federally Enforceable Through Title V Permit
81. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)] Federally Enforceable Through Title V Permit
82. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. CEMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.48b(1)] Federally Enforceable Through Title V Permit
83. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the CEMS. [40 CFR 60.48b(e)] Federally Enforceable Through Title V Permit
84. The CEMS shall be operated and data recorded during all periods of operation except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)] Federally Enforceable Through Title V Permit
85. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
86. The NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2) for NO<sub>x</sub>, Appendix B PS 4A for CO, and Appendix B PS 3 for O<sub>2</sub> or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
87. In accordance with 40 CFR Part 60, Appendix F, 5.1, NO<sub>x</sub>, CO and O<sub>2</sub> CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
88. The owner/operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F, 5.1.1, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CEMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
89. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
90. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit
91. The facility 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] Federally Enforceable Through Title V Permit
92. Upon notice by the District that the facility's CEMS 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] Federally Enforceable Through Title V Permit

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93. The permittee shall maintain the following records for CEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CEMS was inoperative. [District Rule 1080] Federally Enforceable Through Title V Permit
94. The owner or operator shall submit the performance test data and the performance evaluation of the CEMS using performance specification 2 (PS 2) for NO<sub>x</sub>, PS 4A for CO, and PS3 for O<sub>2</sub> in 40 CFR Part 60 Appendix B. [40 CFR 60.49b(b)] Federally Enforceable Through Title V Permit
95. When NO<sub>x</sub> data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)] Federally Enforceable Through Title V Permit
96. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NO<sub>x</sub> and CO emission rates (expressed as NO<sub>2</sub>) (ppmvd @ 3% O<sub>2</sub> and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NO<sub>x</sub> emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NO<sub>x</sub> and CO emission rates are in excess of the NO<sub>x</sub> and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the CEMS; (10) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 or 4A; (11) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)] Federally Enforceable Through Title V Permit

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**APPENDIX B**  
**Current ATC and PTO**



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT

  
**HEALTHY AIR LIVING™**

**COPY**

## AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-1399-17-3

**ISSUANCE DATE:** 08/21/2013

**LEGAL OWNER OR OPERATOR:** LIBERTY PACKING CD - THE MORNING STAR CO  
**MAILING ADDRESS:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**LOCATION:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 260 MMBTU/HR NATURAL GAS FIRED NEBRASKA MODEL N2S-8/S-100-ECON BOILER WITH A TODD DRMB ULTRA LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION: TO INSTALL A CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) FOR MEASURING NOX, CO AND O2 CONCENTRATION AND REDUCE PM10 EMISSION FACTOR FROM 0.0076 LB/MMBTU TO 0.0074 LB/MMBTU


### CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
4. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
5. The facility-wide NOx emissions shall not exceed 33,705 pounds during any 12 consecutive month rolling period. [District Rule 2201]

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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 Sadredini, Executive Director / AFCD



DAVID WARNER, Director of Permit Services

N-1399-17-3 Aug 21 2013 5:55AM - KAVLONJ Joint Inspection NOT Required

6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
8. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. The unit shall only be fired on PUC-quality natural gas with a sulfur content of no greater than 1.0 grains (gr) of sulfur per 100 standard cubic feet (scf) of natural gas. [District Rules 2201 and 4320, 40 CFR 60.42b9k)(1)(2)]
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in this unit shall be installed, utilized and maintained. [District Rule 2201, 40 CFR 60.49b(d)(1)]
11. Heat input to this unit shall not exceed 1,059,019 MMBtu during any 12 consecutive month rolling period. [District Rule 2201]
12. During start-up or shutdown, the emissions control system (i.e. FGR system) shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 2201, 4305, 4306 and 4320]
13. The startup duration shall not exceed 2.0 hours per day. [District Rules 2201, 4306 and 4320]
14. The shutdown duration shall not exceed 1.0 hour per day. [District Rules 2201, 4306 and 4320]
15. The total duration of startups and shutdowns shall not exceed 41 hours during any 12 consecutive month rolling period. [District Rule 2201]
16. During startup and shutdown, NOx emissions shall not exceed 30.0 ppmvd @ 3% O2 or 0.036 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
17. During startup and shutdown, CO emissions shall not exceed 200 ppmvd @ 3% O2 or 0.148 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
18. Except during startup and shutdown, NOx emissions shall not exceed 7.0 ppmvd @ 3% O2 or 0.008 lb/MMBtu, referenced as NO2 over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
19. Except during startup and shutdown, CO emissions shall not exceed 50 ppmvd @ 3% O2 or 0.037 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
20. SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]
21. PM10 emissions shall not exceed 0.0074 lb/MMBtu. [District Rule 2201]
22. VOC emissions shall not exceed 10 ppmvd @ 3% O2 or 0.0042 lb/MMBtu, referenced as methane. [District Rule 2201]
23. 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 NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
25. Source testing to measure startup and shutdown NOx and CO emissions shall be conducted within 60 days of initial startup under this permit. CEMS relative accuracy for NOx and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

26. Source testing to measure NO<sub>x</sub> and CO emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every 12 months. [District Rules 4305, 4306 and 4320]
27. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320]
28. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320]
29. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320]
30. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320]
31. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320]
32. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306 and 4320]
33. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320]
34. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
35. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. CEMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.48b(1)]
36. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the CEMS. [40 CFR 60.48b(e)]
37. The CEMS shall be operated and data recorded during all periods of operation except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)]
38. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
39. The NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2) for NO<sub>x</sub>, Appendix B PS 4A for CO, and Appendix B PS 3 for O<sub>2</sub> or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
40. In accordance with 40 CFR Part 60, Appendix F, 5.1, NO<sub>x</sub>, CO and O<sub>2</sub> CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080, 2201, 4305, 4306 and 4320]
41. The owner/operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F, 5.1.1, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CEMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rules 1080, 2201, 4305, 4306 and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

42. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080, 2201, 4305, 4306 and 4320]
43. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
44. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
45. The facility 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]
46. Upon notice by the District that the facility's CEMS 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]
47. The permittee shall maintain the following records for CEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CEMS was inoperative. [District Rule 1080]
48. The owner or operator shall submit the performance test data and the performance evaluation of the CEMS using performance specification 2 (PS 2) for NO<sub>x</sub>, PS 4A for CO, and PS 3 for O<sub>2</sub> in 40 CFR Part 60 Appendix B. [40 CFR 60.49b(b)]
49. For 40 CFR Part 60 Subpart Db purpose, NO<sub>x</sub> emissions shall not exceed 0.1 lb/MMBtu for low heat release units (70,000 Btu/hr-ft<sup>3</sup> of furnace volume or less) and 0.2 lb/MMBtu for high heat release units (greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume) on a 30-day rolling average basis. NO<sub>x</sub> standard shall apply at all times including periods of startup, shutdown, or malfunction. The permittee shall maintain record of the furnace volume, which is defined as the volume bounded by the front furnace wall where the burner is located, the furnace side waterfall, and extending to the level just below or in front of the first row of convection pass tubes. [40 CFR 60.44b(a), 60.44b(h), 60.44b(i)]
50. For the initial compliance test under 40 CFR Part 60 Subpart Db, NO<sub>x</sub> emissions shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate shall be used to determine compliance with the NO<sub>x</sub> emission standard under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. [40 CFR 60.46b(e)(1)]
51. Following the initial compliance test, the operator shall determine compliance with the NO<sub>x</sub> standard under 40 CFR 60.44 (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)) on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(3)]
52. The 1-hour average NO<sub>x</sub> emission rates measured by the continuous NO<sub>x</sub> monitor shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). [40 CFR 60.48b(d)]
53. When NO<sub>x</sub> data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)]

CONDITIONS CONTINUE ON NEXT PAGE

54. The owner or operator shall maintain records of the amount of fuel combusted during each day in this unit. [District Rule 2201 and 40 CFR 60.49b(d)(1)]
55. The owner or operator shall maintain records of the annual capacity factor on a monthly basis. The annual capacity factor shall be 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)]
56. The owner or operator shall either obtain fuel receipts (such as a valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets definition of natural gas (as defined in 40 CFR 60.41b) and the applicable sulfur limit (i.e., 1.0 gr-S/100 scf), or demonstrate that the combusted gas is provided from a PUC or FERC regulated source, or monitor the sulfur content within 60 days of initial startup and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 4320, 40 CFR 60.45b(j), 60.49b(r)(2)]
57. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NOx and CO emission rates (expressed as NO2) (ppmvd @ 3% O2 and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NOx emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NOx and CO emission rates are in excess of the NOx and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the CEMS; (10) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 or 4A; (11) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (11) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)]
58. The owner or operator of an affected facility may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. 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 permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 40 CFR 60.49b(v)]
59. The owner or operator shall keep records of the date, duration of each startup (hours), and duration of each shutdown (hours). [District Rule 2201]
60. The owner or operator shall keep records of the total duration of startups and shutdowns (hours) on a rolling 12 consecutive month total basis, and shall be updated at least monthly. [District Rule 2201]
61. The owner or operator shall keep record of the facility-wide NOx emissions (in pounds). The record shall be on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201]
62. The owner or operator shall keep record of the annual heat input to this unit (in MMBtu). The record shall be kept on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

63. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)]





**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



**HEALTHY AIR LIVING™**

**COPY**

## AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-1399-17-5

**ISSUANCE DATE:** 04/08/2015

**LEGAL OWNER OR OPERATOR:** LIBERTY PACKING CO - THE MORNING STAR CO

**MAILING ADDRESS:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**LOCATION:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 260 MMBTU/HR NEBRASKA MODEL N2S-8/S-100-ECON NATURAL GAS-FIRED BOILER WITH A TODD DRMB ULTRA LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION (BOILER NO. 1); MODIFY CEMS AUDIT LANGUAGE TO ADDRESS QUARTERS WHERE BOILER DOESN'T OPERATE

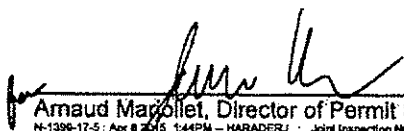
### CONDITIONS

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. Authority to Construct N-1399-17-3 shall be implemented prior to or simultaneously to the implementation of this Authority to Construct. [District Rule]
3. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
4. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
5. The facility-wide NOx emissions shall not exceed 33,705 pounds during any 12 consecutive month rolling period. [District Rule 2201]
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-8400 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

  
Arnaud Margollet, Director of Permit Services  
N-1399-17-5 - Apr 8 2015 1:44PM - HARADERJ - Joint Inspection NOT Required

8. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. The unit shall only be fired on PUC-quality natural gas with a sulfur content of no greater than 1.0 grains (gr) of sulfur per 100 standard cubic feet (scf) of natural gas. [District Rules 2201 and 4320, 40 CFR 60.42b9k)(1)(2)]
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in this unit shall be installed, utilized and maintained. [District Rule 2201, 40 CFR 60.49b(d)(1)]
11. Heat input to this unit shall not exceed 1,059,019 MMBtu during any 12 consecutive month rolling period. [District Rule 2201]
12. During start-up or shutdown, the emissions control system (i.e. FGR system) shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 2201, 4305, 4306 and 4320]
13. The startup duration shall not exceed 2.0 hours per day. [District Rules 2201, 4306 and 4320]
14. The shutdown duration shall not exceed 1.0 hour per day. [District Rules 2201, 4306 and 4320]
15. The total duration of startups and shutdowns shall not exceed 41 hours during any 12 consecutive month rolling period. [District Rule 2201]
16. During startup and shutdown, NOx emissions shall not exceed 30.0 ppmvd @ 3% O2 or 0.036 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
17. During startup and shutdown, CO emissions shall not exceed 200 ppmvd @ 3% O2 or 0.148 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
18. Except during startup and shutdown, NOx emissions shall not exceed 7.0 ppmvd @ 3% O2 or 0.008 lb/MMBtu, referenced as NO2 over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
19. Except during startup and shutdown, CO emissions shall not exceed 50 ppmvd @ 3% O2 or 0.037 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
20. SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]
21. PM10 emissions shall not exceed 0.0074 lb/MMBtu. [District Rule 2201]
22. VOC emissions shall not exceed 10 ppmvd @ 3% O2 or 0.0042 lb/MMBtu, referenced as methane. [District Rule 2201]
23. 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 NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
25. Source testing to measure startup and shutdown NOx and CO emissions shall be conducted within 60 days of initial startup under this permit. CEMS relative accuracy for NOx and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). [District Rule 2201]
26. Source testing to measure NOx and CO emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every 12 months. [District Rules 4305, 4306 and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

27. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320]
28. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320]
29. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320]
30. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320]
31. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320]
32. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320]
33. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320]
34. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
35. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. CEMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.48b(1)]
36. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the CEMS. [40 CFR 60.48b(e)]
37. The CEMS shall be operated and data recorded during all periods of operation except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)]
38. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
39. The NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2) for NO<sub>x</sub>, Appendix B PS 4A for CO, and Appendix B PS 3 for O<sub>2</sub> or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
40. In accordance with 40 CFR Part 60, Appendix F, 5.1, NO<sub>x</sub>, CO, and O<sub>2</sub> CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). An audit (CGA or RAA) is not required for a calendar quarter if the unit does not operate during that calendar quarter, and an audit (CGA or RAA) is not required for calendar quarters if a RATA was performed during that calendar quarter. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080, 2201, 4305, 4306 and 4320]
41. The owner/operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F, 5.1.1, at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CEMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rules 1080, 2201, 4305, 4306 and 4320]
42. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080, 2201, 4305, 4306 and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

43. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
44. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
45. The facility 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]
46. Upon notice by the District that the facility's CEMS 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]
47. The permittee shall maintain the following records for CEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CEMS was inoperative. [District Rule 1080]
48. The owner or operator shall submit the performance test data and the performance evaluation of the CEMS using performance specification: 2 (PS 2) for NO<sub>x</sub>, PS 4A for CO, and PS3 for O<sub>2</sub> in 40 CFR Part 60 Appendix B. [40 CFR 60.49b(b)]
49. For 40 CFR Part 60 Subpart Db purpose, NO<sub>x</sub> emissions shall not exceed 0.1 lb/MMBtu for low heat release units (70,000 Btu/hr-ft<sup>3</sup> of furnace volume or less) and 0.2 lb/MMBtu for high heat release units (greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume) on a 30-day rolling average basis. NO<sub>x</sub> standard shall apply at all times including periods of startup, shutdown, or malfunction. The permittee shall maintain record of the furnace volume, which is defined as the volume bounded by the front furnace wall where the burner is located, the furnace side waterfall, and extending to the level just below or in front of the first row of convection pass tubes. [40 CFR 60.44b(a), 60.44b(h), 60.44b(i)]
50. For the initial compliance test under 40 CFR Part 60 Subpart Db, NO<sub>x</sub> emissions shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate shall be used to determine compliance with the NO<sub>x</sub> emission standard under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. [40 CFR 60.46b(e)(1)]
51. Following the initial compliance test, the operator shall determine compliance with the NO<sub>x</sub> standard under 40 CFR 60.44 (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)) on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(3)]
52. The 1-hour average NO<sub>x</sub> emission rates measured by the continuous NO<sub>x</sub> monitor shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). [40 CFR 60.48b(d)]
53. When NO<sub>x</sub> data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)]
54. The owner or operator shall maintain records of the amount of fuel combusted during each day in this unit. [District Rule 2201 and 40 CFR 60.49b(d)(1)]

CONDITIONS CONTINUE ON NEXT PAGE

55. The owner or operator shall maintain records of the annual capacity factor on a monthly basis. The annual capacity factor shall be 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)]
56. The owner or operator shall either obtain fuel receipts (such as a valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets definition of natural gas (as defined in 40 CFR 60.41b) and the applicable sulfur limit (i.e., 1.0 gr-S/100 scf), or demonstrate that the combusted gas is provided from a PUC or FERC regulated source, or monitor the sulfur content within 60 days of initial startup and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 scf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 4320, 40 CFR 60.45b(j), 60.49b(r)(2)]
57. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NO<sub>x</sub> and CO emission rates (expressed as NO<sub>2</sub>) (ppmv @ 3% O<sub>2</sub> and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NO<sub>x</sub> emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NO<sub>x</sub> and CO emission rates are in excess of the NO<sub>x</sub> and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the CEMS; (10) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 or 4A; (11) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (12) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)]
58. The owner or operator of an affected facility may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. 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 permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 40 CFR 60.49b(v)]
59. The owner or operator shall keep records of the date, duration of each startup (hours), and duration of each shutdown (hours). [District Rule 2201]
60. The owner or operator shall keep records of the total duration of startups and shutdowns (hours) on a rolling 12 consecutive month total basis, and shall be updated at least monthly. [District Rule 2201]
61. The owner or operator shall keep record of the facility-wide NO<sub>x</sub> emissions (in pounds). The record shall be on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201]
62. The owner or operator shall keep record of the annual heat input to this unit (in MMBtu). The record shall be kept on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201]
63. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)]



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



**HEALTHY AIR LIVING™**

**COPY**

## AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-1399-24-1

**ISSUANCE DATE:** 01/26/2015

**LEGAL OWNER OR OPERATOR:** LIBERTY PACKING CO - THE MORNING STAR CO  
**MAILING ADDRESS:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**LOCATION:** 12045 S INGOMAR GRADE RD  
LOS BANOS, CA 93635

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 471 MMBTU/HR CLEAVER BROOKS MODEL NB-ED-110 BOILER EQUIPPED WITH A COEN MODEL VARIFLAME LOW NOX BURNER INDUCED FLUE GAS RECIRCULATION SERVED BY A CADASTACK (OR OTHER MANUFACTURER) SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM: TO CLARIFY WHEN CEMS AUDITS ARE REQUIRED

### 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. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
3. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
4. The facility-wide NOx emissions shall not exceed 33,705 pounds during any 12 consecutive month rolling period. [District Rule 2201]
5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann I or 20% opacity. [District Rule 4101]

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

*Arnaud Manillet*  
Arnaud Manillet, Director of Permit Services  
N-1399-24-1 - Jan 26 2015 8:41AM - HARADERJ - Joint Inspection NOT Required

8. The unit shall only be fired on PUC-quality natural gas with a sulfur content of no greater than 1.0 grains (gr) of sulfur per 100 standard cubic feet (scf) of natural gas. [District Rules 2201 and 4320, 40 CFR 60.42b9k)(1)(2)]
9. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in this unit shall be installed, utilized and maintained. [District Rule 2201, 40 CFR 60.49b(d)(1)]
10. Heat input to this unit shall not exceed 1,271,700 MMBtu during any 12 consecutive month rolling period. [District Rule 2201]
11. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 2201, 4305, 4306 and 4320]
12. The startup duration shall not exceed 4.0 hours per day. [District Rules 2201, 4306 and 4320]
13. The shutdown duration shall not exceed 1.0 hour per day. [District Rules 2201, 4306 and 4320]
14. The total duration of startups and shutdowns shall not exceed 41 hours during any 12 consecutive month rolling period. [District Rule 2201]
15. During startup and shutdown, NO<sub>x</sub> emissions shall not exceed 30.0 ppmvd @ 3% O<sub>2</sub> or 0.036 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
16. During startup and shutdown, CO emissions shall not exceed 200 ppmvd @ 3% O<sub>2</sub> or 0.148 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
17. Except during startup and shutdown, NO<sub>x</sub> emissions shall not exceed 5.0 ppmvd @ 3% O<sub>2</sub> or 0.0062 lb/MMBtu, referenced as NO<sub>2</sub> over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
18. Except during startup and shutdown, CO emissions shall not exceed 50 ppmvd @ 3% O<sub>2</sub> or 0.037 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
19. SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]
20. PM<sub>10</sub> emissions shall not exceed 0.003 lb/MMBtu. [District Rule 2201]
21. VOC emissions shall not exceed 5 ppmvd @ 3% O<sub>2</sub> or 0.002 lb/MMBtu, referenced as methane. [District Rule 2201]
22. NH<sub>3</sub> emissions shall not exceed 10 ppmvd @ 3% O<sub>2</sub>. [District Rule 2201]
23. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
25. Source testing to measure NO<sub>x</sub>, CO and NH<sub>3</sub> emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every 12 months. [District Rules 4305, 4306 and 4320]
26. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320]
27. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

28. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320]
29. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320]
30. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 2201]
31. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320]
32. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320]
33. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320]
34. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
35. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. CEMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of CEMS cannot be demonstrated during startup conditions, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this document. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.48b(1)]
36. The owner or operator shall monitor and record the stack concentration of NH<sub>3</sub> at least once during each month in which source testing is not performed. NH<sub>3</sub> monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. Monitoring shall not be required if unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit(s) unless it has been performed within the last month. [District Rule 2201]
37. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the CEMS. [40 CFR 60.48b(e)]
38. The CEMS shall be operated and data recorded during all periods of operation except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)]
39. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
40. The NO<sub>x</sub>, CO and O<sub>2</sub> CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2) for NO<sub>x</sub>, Appendix B PS 4A for CO, and Appendix B PS 3 for O<sub>2</sub> or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
41. In accordance with 40 CFR Part 60, Appendix F, 5.1, NO<sub>x</sub>, CO and O<sub>2</sub> CEMS must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080, 2201, 4305, 4306 and 4320]
42. The owner/operator shall perform a RATA for NO<sub>x</sub>, CO and O<sub>2</sub> as specified by 40 CFR Part 60, Appendix F, 5.1.1, at least once every four calendar quarters. An audit (CGA or RAA) is not required for a calendar quarter if the unit does not operate during that calendar quarter, and an audit (CGA or RAA) is not required for calendar quarters if a RATA was performed during that calendar quarter. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CEMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rules 1080, 2201, 4305, 4306 and 4320]

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43. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rules 1080, 2201, 4305, 4306 and 4320]
44. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201, 4305, 4306 and 4320]
45. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080]
46. The facility 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]
47. Upon notice by the District that the facility's CEMS 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]
48. The permittee shall maintain the following records for CEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CEMS was inoperative. [District Rule 1080]
49. The owner or operator shall submit the performance test data and the performance evaluation of the CEMS using performance specification 2 (PS 2) for NO<sub>x</sub>, PS 4A for CO, and PS3 for O<sub>2</sub> in 40 CFR Part 60 Appendix B. [40 CFR 60.49b(b)]
50. For 40 CFR Part 60 Subpart Db purpose, NO<sub>x</sub> emissions shall not exceed 0.1 lb/MMBtu for low heat release units (70,000 Btu/hr-ft<sup>3</sup> of furnace volume or less) and 0.2 lb/MMBtu for high heat release units (greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume) on a 30-day rolling average basis. NO<sub>x</sub> standard shall apply at all times including periods of startup, shutdown, or malfunction. The permittee shall maintain record of the furnace volume, which is defined as the volume bounded by the front furnace wall where the burner is located, the furnace side waterfall, and extending to the level just below or in front of the first row of convection pass tubes. [40 CFR 60.44b(a), 60.44b(h), 60.44b(i)]
51. For the initial compliance test under 40 CFR Part 60 Subpart Db, NO<sub>x</sub> emissions shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate shall be used to determine compliance with the NO<sub>x</sub> emission standard under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period. [40 CFR 60.46b(e)(1)]
52. Following the initial compliance test, the operator shall determine compliance with the NO<sub>x</sub> standard under 40 CFR 60.44 (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)) on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(3)]
53. The 1-hour average NO<sub>x</sub> emission rates measured by the continuous NO<sub>x</sub> monitor shall be expressed in lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)). The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). [40 CFR 60.48b(d)]
54. When NO<sub>x</sub> data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of Part 60, Method 7A of Appendix A of Part 60, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)]

CONDITIONS CONTINUE ON NEXT PAGE

55. The owner or operator shall maintain records of the amount of fuel combusted during each day in this unit. [District Rule 2201 and 40 CFR 60.49b(d)(1)]
56. The owner or operator shall maintain records of the annual capacity factor on a monthly basis. The annual capacity factor shall be 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)]
57. The owner or operator shall either obtain fuel receipts (such as a valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets definition of natural gas (as defined in 40 CFR 60.41b) and the applicable sulfur limit (i.e., 1.0 gr-S/100 scf), or demonstrate that the combusted gas is provided from a PUC or FERC regulated source, or monitor the sulfur content within 60 days of initial startup and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 4320, 40 CFR 60.45b(j), 60.49b(r)(2)]
58. The owner or operator shall maintain records and submit a written report each calendar quarter to the District containing the following information for each steam generating unit operating day: (1) Calendar date; (2) The average hourly NO<sub>x</sub> and CO emission rates (expressed as NO<sub>2</sub>) (ppmvd @ 3% O<sub>2</sub> and lb/MMBtu heat input) measured or predicted; (3) The 30-day average NO<sub>x</sub> emission rates (lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; (4) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under 40 CFR 60.44b (0.1 lb/MMBtu for low heat release units (i.e., 70,000 Btu/hr-ft<sup>3</sup> of furnace volume, or less), or 0.2 lb/MMBtu for high heat release units (i.e., greater than 70,000 Btu/hr-ft<sup>3</sup> of furnace volume)), with the reasons for such excess emissions as well as a description of corrective actions taken; (5) Identification of the steam generating unit operating days when the average hourly NO<sub>x</sub> and CO emission rates are in excess of the NO<sub>x</sub> and CO limits (startup, shutdown and steady state) in this permit, with the reason for such excess emissions as well as a description of corrective actions taken; (6) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (7) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; (8) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; (9) Identification of the times when the pollutant concentration exceeded full span of the CEMS; (10) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 or 4A; (11) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (12) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201, 4305, 4306 and 4320, 40 CFR 60.49b(g), 40 CFR 60.49b(i), and 40 CFR 60.49b(w)]
59. The owner or operator of an affected facility may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. 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 permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rule 1080 and 40 CFR 60.49b(v)]
60. The owner or operator shall keep records of the date and time, measured NH<sub>3</sub> concentration, O<sub>2</sub> concentration in percent, and NH<sub>3</sub> concentration corrected to 3% O<sub>2</sub>. [District Rule 2201]
61. The owner or operator shall keep records of the date, duration of each startup (hours), and duration of each shutdown (hours). [District Rule 2201]
62. The owner or operator shall keep records of the total duration of startups and shutdowns (hours) on a rolling 12 consecutive month total basis, and shall be updated at least monthly. [District Rule 2201]
63. The owner or operator shall keep record of the facility-wide NO<sub>x</sub> emissions (in pounds). The record shall be on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

64. The owner or operator shall keep record of the annual heat input to this unit (in MMBtu). The record shall be kept on a rolling 12 consecutive month total basis and shall be updated at least weekly. [District Rule 2201]
65. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 1070, 2201, 4305, 4306, and 4320, 40 CFR 60.49b(o)]

**APPENDIX C**  
**SSPE2 Calculations**

### Post-Project Potential Emissions

#### SOx Emissions

The following steps were followed to determine the maximum SOx emissions under facility-wide NOx SLC after the proposed modification.

1. Calculate SOx/NOx ratio such that emissions from the units with high SOx/NOx ratio should be counted first, in other words, this step is to line-up the units based on SOx/NOx ratio in a descending order to be used for Step 2.

Permit	Description	NOx	SOx	PM10	CO	VOC	SOx/NOx
-4-1 & -5-1	220 MMBtu/hr boilers	8,448	3,010	8,026	19,008	4,435	0.36
-11-0	94 hp diesel engine	126	0	1	4	6	0.00
-13-1	180 MMBtu/hr boiler	12,614	4,494	11,984	34,690	6,623	0.36
-16-1	10 MMBtu/hr roaster	786	62	299	7,970	299	0.08
-17-6	263 MMBtu/hr boiler	8,771	3,018	7,837	40,367	4,448	0.34
-20-1	36 MMBtu/hr boiler	2,523	899	2,397	11,668	1,325	0.36
-21-0	389 hp diesel engine	102	0	4	19	7	0.00
-24-2	458.5 MMBtu/hr boiler	8,445	3,624	3,815	49,139	2,543	0.42

1. Calculate the total NOx by adding potential emissions of individual units (lined-up based on SOx/NOx ratio in Step 1) without exceeding the facility-wide limit.

Unit	PE (lb/yr)
-24-2	8,445
-20-1	2,523
-13-1	12,614
-4-1 & -5-1	8,448
Total:	32,030

2. Determine the difference between NOx SLC and Total NOx in Step 2

$$33,705 \text{ lb/yr} - 32,030 \text{ lb/yr} = 1,675 \text{ lb/yr}$$

3. Calculate operational hours for a unit (next in line according to the SOx/NOx ratio in Step 1) by dividing the value in Step 3 (lb-NOx/yr) with the hourly NOx emissions (lb-NOx/hr).

$$(1,675 \text{ lb-NOx/yr}) \div (0.008 \text{ lb-NOx/MMBtu} \times 260 \text{ MMBtu/hr for unit N-1399-17-6}) = 805 \text{ hr/yr}$$

4. Calculate the total SOx emissions by adding the individual SOx potential emissions from the unit(s) including the potential SOx emissions from the unit in Step 4 calculated using EF (lb/MMBtu), operational hours (hr/yr), and the heat input rate to the unit (MMBtu/hr).

Unit	EF (lb/MMBtu)	PE (lb/yr)
-24-2	--	3,624
-20-1	--	899
-13-1	--	4,494
-4-1 & -5-1	--	3,010
-17-6	0.00285	597
PE		12,624

The maximum SOx emissions from this facility after meeting the maximum NOx limit would be **12,624 lb/yr**.

**PM<sub>10</sub> Emissions**

The following steps were followed to determine the maximum PM<sub>10</sub> emissions under facility-wide NOx SLC after the proposed modification.

1. Calculate PM<sub>10</sub>/NOx ratio such that emissions from the units with high PM<sub>10</sub>/NOx ratio should be counted first, in other words, this step is to line-up the units based on PM<sub>10</sub>/NOx ratio in a descending order to be used for Step 2.

Permit	Description	NOx	SOx	PM <sub>10</sub>	CO	VOC	PM <sub>10</sub> /NOx
-4-1 & -5-1	220 MMBtu/hr boilers	8,448	3,010	8,026	19,008	4,435	0.95
-11-0	94 hp diesel engine	126	0	1	4	6	0.01
-13-1	180 MMBtu/hr boiler	12,614	4,494	11,984	34,690	6,623	0.95
-16-1	10 MMBtu/hr roaster	786	62	299	7,970	299	0.38
-17-6	263 MMBtu/hr boiler	8,771	3,018	7,837	40,367	4,448	0.89
-20-1	36 MMBtu/hr boiler	2,523	899	2,397	11,668	1,325	0.95
-21-0	389 hp diesel engine	102	0	4	19	7	0.04
-24-2	458.5 MMBtu/hr boiler	8,445	3,624	3,815	49,139	2,543	0.45

2. Calculate the total NOx by adding potential emissions of the units lined-up based on PM<sub>10</sub>/NOx ratio in Step 1 without exceeding the facility-wide limit.

Unit	PE (lb/yr)
-4-1 & -5-1	8,448
-13-1	12,614
-20-1	2,523
-17-6	8,771
Total:	32,356

3. Determine the difference between NOx SLC and Total NOx in Step 2

$$33,705 \text{ lb/yr} - 32,356 \text{ lb/yr} = 1,349 \text{ lb/yr}$$

4. Calculate operational hours for a unit (next in line according to the PM<sub>10</sub>/NOx ratio in Step 1) by dividing the value in Step 3 (lb-NOx/yr) with the hourly NOx emissions (lb-NOx/hr).

$$(1,349 \text{ lb-NOx/yr}) \div (0.0062 \text{ lb-NOx/MMBtu} \times 458.5 \text{ MMBtu/hr for unit N-1399-24-2}) = 474 \text{ hr/yr}$$

5. Calculate the total PM<sub>10</sub> emissions by adding the individual PM<sub>10</sub> potential emissions from the unit(s) including the potential PM<sub>10</sub> emissions from the unit in Step 4 calculated using EF (lb/MMBtu), operational hours (hr/yr), and the heat input rate to the unit (MMBtu/hr).

Unit	EF (lb/MMBtu)	PE (lb/yr)
-4-1 & -5-1	--	8,026
-13-1	--	11,984
-20-1	--	2,397
-17-6	--	7,837
-24-2	0.003	653
PE:		30,897

The maximum PM<sub>10</sub> emissions from this facility after meeting the maximum NOx limit would be **30,897 lb/yr**.

**CO Emissions**

The following steps were followed to determine the maximum CO emissions under facility-wide NOx SLC after the proposed modification.

1. Calculate CO/NOx ratio such that emissions from the units with high CO/NOx ratio should be counted first, in other words, this step is to line-up the units based on CO/NOx ratio in a descending order to be used for Step 2.

Permit	Description	NOx	SOx	PM10	CO	VOC	CO/NOx
-4-1 &-5-1	220 MMBtu/hr boilers	8,448	3,010	8,026	19,008	4,435	2.25
-11-0	94 hp diesel engine	126	0	1	4	6	0.03
-13-1	180 MMBtu/hr boiler	12,614	4,494	11,984	34,690	6,623	2.75
-16-1	10 MMBtu/hr roaster	786	62	299	7,970	299	10.14
-17-6	263 MMBtu/hr boiler	8,771	3,018	7,837	40,367	4,448	4.60
-20-1	36 MMBtu/hr boiler	2,523	899	2,397	11,668	1,325	4.62
-21-0	389 hp diesel engine	102	0	4	19	7	0.19
-24-2	458.5 MMBtu/hr boiler	8,445	3,624	3,815	49,139	2,543	5.82

2. Calculate the total NOx by adding potential emissions of the units lined-up based on CO/NOx ratio in Step 1 without exceeding the facility-wide limit.

Unit	PE (lb/yr)
-16-1	786
-24-2	8,445
-20-1	2,523
-17-6	8,771
-13-1	12,614
Total:	33,139

3. Determine the difference between NOx SLC and Total NOx in Step 2

$$33,705 \text{ lb/yr} - 33,139 \text{ lb/yr} = 566 \text{ lb/yr}$$

4. Calculate operational hours for a unit (next in line according to the CO/NOx ratio in Step 1) by dividing the value in Step 3 (lb-NOx/yr) with the hourly NOx emissions (lb-NOx/hr).

$$(566 \text{ lb-NOx/yr}) \div (0.008 \text{ lb-NOx/MMBtu} \times 220 \text{ MMBtu/hr for unit N-1399-4-1 or 5-1}) = 322 \text{ hr/yr}$$

5. Calculate the total CO emissions by adding the individual CO potential emissions from the unit(s) including the potential CO emissions from the unit in Step 4 calculated using EF (lb/MMBtu), operational hours (hr/yr), and the heat input rate to the unit (MMBtu/hr).

Unit	EF (lb/MMBtu)	PE (lb/yr)
-16-1	--	7,970
-24-2	--	49,196
-20-1	--	11,668
-17-6	--	40,367
-13-1	--	34,690
-4-1 &-5-1	0.018	1,275
PE		145,166

The maximum CO emissions from this facility after meeting the maximum NOx limit would be **145,166 lb/yr**.

**VOC Emissions**

The following steps were followed to determine the maximum VOC emissions under facility-wide NOx SLC after the proposed modification.

1. Calculate VOC/NOx ratio such that emissions from the units with high VOC/NOx ratio should be counted first, in other words, this step is to line-up the units based on VOC/NOx ratio in a descending order to be used for Step 2.

Permit	Description	NOx	SOx	PM10	CO	VOC	VOC/NOx
-4-1 &-5-1	220 MMBtu/hr boilers	8,448	3,010	8,026	19,008	4,435	0.52
-11-0	94 hp diesel engine	126	0	1	4	6	0.05
-13-1	180 MMBtu/hr boiler	12,614	4,494	11,984	34,690	6,623	0.53
-16-1	10 MMBtu/hr roaster	786	62	299	7,970	299	0.38
-17-6	263 MMBtu/hr boiler	8,771	3,018	7,837	40,367	4,448	0.51
-20-1	36 MMBtu/hr boiler	2,523	899	2,397	11,668	1,325	0.53
-21-0	389 hp diesel engine	102	0	4	19	7	0.07
-24-2	458.5 MMBtu/hr boiler	8,445	3,624	3,815	49,139	2,543	0.30

2. Calculate the total NOx by adding potential emissions of the units lined-up based on VOC/NOx ratio in Step 1 without exceeding the facility-wide limit.

Unit	PE (lb/yr)
-13-1	12,614
-20-1	2,523
-4-1 &-5-1	8,448
-17-6	8,771
-16-1	786
Total:	33,142

3. Determine the difference between NOx SLC and Total NOx in Step 2

$$33,705 \text{ lb/yr} - 33,142 \text{ lb/yr} = 563 \text{ lb/yr}$$

4. Calculate operational hours for a unit (next in line according to the VOC/NOx ratio in Step 1) by dividing the value in Step 3 (lb-NOx/yr) with the hourly NOx emissions (lb-NOx/hr).

$$(563 \text{ lb-NOx/yr}) \div (0.0062 \text{ lb-NOx/MMBtu} \times 458.5 \text{ MMBtu/hr for unit N-1399-24-2}) = 198 \text{ hr/yr}$$

5. Calculate the total VOC emissions by adding the individual VOC potential emissions from the unit(s) including the potential VOC emissions from the unit in Step 4 calculated using EF (lb/MMBtu), operational hours (hr/yr), and the heat input rate to the unit (MMBtu/hr).

Unit	EF (lb/MMBtu)	PE (lb/yr)
-13-1	--	6,623
-17-6	--	4,448
-20-1	--	1,325
-4-1 &-5-1	--	4,435
-16-1	--	299
-24-2	0.002	182
PE		17,312

The maximum VOC emissions from this facility after meeting the maximum NOx limit would be **17,312 lb/yr**.



**APPENDIX D**  
**Quarterly Net Emissions Change (QNEC)**

**Quarterly Net Emissions Change (QNEC)**

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.

PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.

PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

<b>Quarterly NEC [QNEC] N-1399-17-6</b>			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO <sub>x</sub>	2,193	2,193	0
SO <sub>x</sub>	755	755	0
PM <sub>10</sub>	2,012	2,012	0
CO	10,092	10,092	0
VOC	1,112	1,112	0

<b>Quarterly NEC [QNEC] N-1399-24-2</b>			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO <sub>x</sub>	2,111	2,116	-5
SO <sub>x</sub>	906	906	0
PM <sub>10</sub>	954	954	0
CO	12,285	12,299	-14
VOC	636	636	0

**APPENDIX E**  
**EPA Approval Letter**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
RESEARCH TRIANGLE PARK, NC 27711

April 16, 2015

OFFICE OF  
AIR QUALITY PLANNING  
AND STANDARDS

Mr. Steve Bortz, Principal Engineer  
URS Corporation  
2020 East First Street, Suite 400  
Santa Ana, California 92704

Dear Mr. Bortz:

I am writing in response to your letter of February 23, 2015, on behalf of Liberty Packing Co. (Liberty), in which you request the use of a predictive emission monitoring system (PEMS) to demonstrate the compliance of Liberty's Boiler 1 and Boiler 6 with the nitrogen oxides (NO<sub>x</sub>) requirements of 40 CFR part 60, Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units). The affected boilers are located at 12045 S. Ingomar Grade Road, in Los Banos, California. Boiler 1 is rated at 263 MMBTU/hr and Boiler 6 is rated at 450 MMBTU/hr.

After the initial compliance test is conducted, 40 CFR 60.48b(g)(2) allows a facility to monitor its steam generating unit's operating conditions and to predict NO<sub>x</sub> emission rates in place of using the CEMS. However, this option is contingent upon the unit having a heat input capacity of 250 MMBTU/hr or less and an annual capacity factor greater than 10 percent for residual oil (having a nitrogen content of 0.30 weight percent or less), natural gas, distillate oil, or any mixture of these fuels.

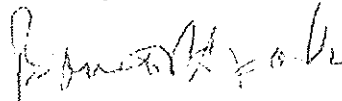
According to the information provided, you are requesting approval for the use of a PEMS on the above referenced boilers, having heat input capacities greater than the specified 250 MMBTU/hr. You also state in your letter that the proposed PEMS would be fully compliant with 40 CFR part 60, Appendix B, Performance Specification 16 (PS-16). Furthermore, your letter specifies that the facility will conduct the following additional quality assurance procedures: (1) "Monthly monitoring using a calibrated portable O<sub>2</sub>, CO, NO and NO<sub>2</sub> analyzer will be conducted to compare the PEMS data with the measured data;" (2) "Plant boiler operating personnel will be trained on the proper operation, maintenance and reporting requirements for the PEMS system;" and (3) "A detailed O&M manual will be prepared with the detailed system requirements."

With this letter, we are approving the use of a PEMS on Boiler 1 and Boiler 6 at Liberty to demonstrate compliance with the NO<sub>x</sub> standard found in 40 CFR 60.44 through the monitoring of steam generating unit operating conditions. This approval is contingent on the following:

- The monitoring plan required under 40 CFR 60.49b(c) must be submitted and approved.
- The PEMS shall be certified according to, and fully compliant with, PS-16.
- Liberty will perform monthly monitoring using a calibrated portable O<sub>2</sub>, CO, NO and NO<sub>2</sub> analyzer. This monthly monitoring will consist of at least one 30 minute measurement period in which the portable analyzer results will be compared to the PEMS data. If the average emissions value measured with calibrated portable analyzer differs from the simultaneous PEMS average emissions value by more than the amounts allowed in section 13.5 of PS-16, Liberty must notify its permitting authority and take corrective actions. Following the corrective actions, Liberty must repeat the monitoring process described above.
- Plant boiler operating personnel will be trained on the proper operation, maintenance and reporting requirements of the PEMS system.
- An O&M manual containing detailed system requirements will be prepared and submitted for review and approval along with the monitoring plan required under 40 CFR 60.49b(c).

If you have any questions regarding this determination, please contact Kim Garnett of my staff at 919-541-1158 (garnett.kim@epa.gov).

Sincerely,



Barrett H. Parker  
Acting Group Leader  
Measurement Technology Group

Cc: Wade Ingram, MorningStar Packing (wingram@morningstarco.com)  
Kim Garnett, EPA/OAQPS/AQAD (garnett.kim@epa.gov)  
Jason Dewees, EPA/OAQPS/AQAD (Dewees.jason@epa.gov)  
Eugene Chen, EPA/Region 9 (Chen.Eugene@epa.gov)  
Nick Peirce, SJVAPCD, (nick.peirce@valleyair.org)

**APPENDIX F**  
**EPA Comments and District Response**

## **EPA comments for Liberty Packing, Facility# N-1399, Project #N-1151578**

The proposed project is to issue ATC's to Liberty Packing to modify existing boilers by replacing the existing Continuous Emission Monitoring System (CEMS) with a Predictive Emission Monitoring System (PEMS) for NO<sub>x</sub>, CO and O<sub>2</sub> emissions, and correcting the heat input rating for the two boilers.

### **Comment 1:**

Each of the existing emission units is currently required to utilize a certified CEMS to monitor and report emissions. The project proposes to replace the existing CEMS with a PEMS. Until the source installs and passes the certification requirements for the new PEMS, the source must continue to use the CEMS to monitor and report emission data. The District can not simply revise existing permit conditions related to the CEMS by replacing the word "CEMS" with "PEMS," as is often the case in the proposed ATCs.

EPA views the proposed project as a request to install and test a new monitoring system (e.g., a PEMS). Accordingly, until the source demonstrates that the PEMS is an adequate replacement for the existing monitoring system (CEMS), the permit must continue to require use of the CEMS. Please revise the proposed ATC to include all of the CEMS conditions in the current permit to operate, and add a new condition stating which specific conditions will be removed after the PEMS is certified and approved by the District. A condition must also be added to specify that the CEMS conditions may be removed only if the PEMS has been installed, met all the applicable requirements of PS16 as modified, and passed the initial RATA test. EPA suggests a condition similar to the following:

The existing CEMS shall not be disconnected until the District has reviewed and approved the RATA results (in accordance with modified PS-16) for the PEMS, and all other PEMS related conditions in this permit have been satisfied.

### **District Response to Comment 1:**

The current CEMS conditions were moved to the end of the conditions as 79 through 93 (for ATC N-1399-17-6) and 82 through 96 (for ATC N-1399-24-2). These conditions will not be included on the operating permit issued after the PEMS is installed, certified, met all the applicable requirements of PS16 as modified, passed the initial RATA test and approved by the District.

The following conditions were added to ATC N-1399-17-6 as conditions 21 and 22 and '-24-2 as conditions 43 and 44.

- Prior to disconnecting the CEMS, the PEMS must pass a Relative Accuracy (RA) Test to be acceptable for use in demonstrating compliance with this permit. [District Rules 2201 and 4703 and 40 CFR 60.334(b)]
- All conditions included in this permit pertaining to operation of the CEMS shall be kept until installation, and demonstration that all applicable PEMS requirements of PS-16 have been met including a successful initial RATA test. [District Rules 2201, 4702 and 40 CFR Subpart GG]

**Comment 2:**

In March 2009, EPA published Performance Specification 16 – Specifications and Test Procedures for PEMS in Stationary Source. PS16 allows approved operators to use a PEMS to show compliance with emission limits under 40 CFR 60, 61 or 63. EPA notes that the emission limits for the two boilers are based on NSR LAER (District BACT) emission limitations, which is not one of the emission limitations that PS16 states it may be used for. Emission rate limits based on NSR program requirements are often significantly lower than those required under NSPS or NESHAP regulations. EPA believes that the use of a PEMS in lieu of a CEMS for NSR emission limits is only appropriate if the PEMS can provide monitoring data that is at least as accurate as the CEMS currently in use.

PS-16, Section 13.1 specifies that for measurements below 10 ppm, the absolute mean difference between the PEMS measurements and the Reference Method measurements must not exceed 2 ppm. Based on the 5 and 7 ppm NO<sub>x</sub> emission limits for the permitted boilers, this represents 40% and 29% of the standard. The source is currently limited to a 20% absolute mean difference between the CEMS measurements and the Reference Method measurements when performing a relative accuracy test. Accordingly, EPA believes that in order to ensure that the PEMS provides data that is at least as accurate as the CEMS, the specific provision of PS-16 (Section 13.1) must be modified to require the PEMS to achieve the same level of accuracy as is required by the existing CEMS. Please add a condition (or incorporate with the requirement to use PS16 in Condition 42 of the proposed ATC) stating that PS16 Section 13.1 is modified to read as follows:

“PEMS Relative Accuracy. The RA must not exceed 20 percent. For diluent PEMS, an alternative criterion of  $\pm 1$  percent absolute difference between the PEMS and RM may be used if less stringent.”, and Section 13.5 is modified to read: “Relative Accuracy Audits. The average of the three portable analyzer or RM determinations must not differ from the simultaneous PEMS average value by more than 20 percent or the test is failed. For diluent PEMS, an alternative criterion of  $\pm 1$  percent absolute difference between the PEMS and the portable analyzer or RM determinations may be used if less stringent.”

Please revise Condition 36 to also reference the amounts allowed in the previous paragraph, rather than existing Section 13.5 of PS-16.

**District Response to Comment 2:**

Currently, the facility performs a RATA once a year and a Cylinder Gas Audit (CGA) for the other 3 quarters when in operation. CEMS RATA compliance requirements are detailed in Performance Specification 2 stating that the facility can pass a RATA by one of two methods: 1) CEMS measures an absolute mean difference less than 20% when using the Reference Method; OR 2) 10% of the applicable standard, whichever is higher. The PEMS condition in the ATC should at least allow for the use of the Applicable Standard to show compliance. For example since these units are equipped with SCR, they may show emission of 1 ppm NO<sub>x</sub> as measured by the Reference Method. If only the +/- 20% limit is allowed to show compliance, the PEMS would most likely not be able to pass by meeting a 0.2 ppm accuracy limit. However, if using 10% of the applicable standard, the PEMS should be able to comply.



It is important to note these are seasonal boilers and only operate for 3-4 months during the year. The full RATA every year will cover three months of compliance out of the year. At most, one portable analyzer RAA may be needed if the units operate past 3 months.

The facility has provided documentation that the accuracy of the portable analyzer is 2 ppmv, therefore the District has added the following condition was to ATC N-1399-17-6 as condition 48 and '-24-2 as condition 55.

- Permittee shall perform Relative Accuracy Test Audits (RATA) and Relative Accuracy Audits (RAA). RATA must not exceed +/- 20 percent absolute mean difference or 10 percent of applicable standard. For diluent PEMS, an alternative criterion of  $\pm 1$  percent absolute difference between the PEMS and RM may be used if less stringent. The RAA shall consist of at least three 30-minute portable analyzer or RM (reference method) determinations each quarter a relative accuracy test audit (RATA) is not performed as specified in Section 9.3 of EPA Performance Specification 16. An audit (RAA) is not required for a calendar quarter if the unit does not operate during that calendar quarter. The average of the 3 portable analyzer (RM) determinations must not differ from the simultaneous PEMS average value by more than 2 ppmv for pollutant PEMS and 1% absolute for diluent PEMS. [District Rules 1080, 2201, 4305, 4306, 4320 and 40 CFR Subpart Db, 40 CFR Part 64]

**Comment 3:**

EPA notes generally that the District must add or revise the specific conditions regarding the installation and testing of the new PEMS unit, as well as necessary conditions regarding ongoing use and relative accuracy testing of the PEMS. The following comments are related to specific issues regarding necessary PEMS permit conditions. All ATC condition numbers cited are from N-1399-17-6.

**District Response to Comment 3:**

Please see the District's responses to following comments to address the specific issues noted by this comment.

**Comment 4:**

Unlike a CEMS, a PEMS unit must be programmed for the specific type of emission unit and control device to be monitored. PS16 refers to this as the "PEMS Design" in Section 6.1 and lists several parameters that must be specified and/or developed as part of the PEMS. The PEMS must undergo a period of "training" while operating within a specified parameter Operating Envelope. EPA could not locate any requirements for the source to submit a PEMS Design document to the District containing the information specified in Section 6.1 of PS16. Given that the information specified in Section 6.1 is critical to the operation of the PEMS, a condition must be added to require the submittal and approval of a PEMS Design Plan, which includes all of the information included in PS16, Section 6.1. This is a separate document from the RATA testing protocol.

**District Response to Comment 4:**

The following condition was added to ATC N-1399-17-6 as condition 44 and '-24-2 as condition 45.

- Details on the design of the PEMS (PEMS protocol) as specified in PS-16, Section 6.1 must be submitted and approved by the District 60 days prior to testing the PEMS for certification. This information must include number of input parameters, parameter operating envelope, source specific operating conditions affecting PEMS output, ambient conditions affecting PEMS operation, PEMS principal of operation including physical assumptions and mathematical manipulations supporting its operation, specific details on the testing to be performed for the PEMS training, data recorder scale, sensors to be used and sensor evaluation system, plan to detect and notify operator of parameter envelope exceedences, and recordkeeping. If the boiler is operated beyond the PEMS operating envelopes at any time after the certification test, the data generated during this condition will not be acceptable for use in demonstrating compliance with applicable requirements. [District Rules 2201, 4702 and 40 CFR Subpart GG]

**Comment 5:**

Please add a condition, pursuant to PS16, Section 6.1.2, stating that if a boiler is operated beyond the PEMS operating envelopes at any time after the certification test, the data generated during this condition will not be acceptable for use in demonstrating compliance with applicable requirements.

**District Response to Comment 5:**

The following condition was added to ATC N-1399-17-6 as condition 44 and '-24-2 as condition 45.

- Details on the design of the PEMS (PEMS protocol) as specified in PS-16, Section 6.1 must be submitted and approved by the District 60 days prior to testing the PEMS for certification. This information must include number of input parameters, parameter operating envelope, source specific operating conditions affecting PEMS output, ambient conditions affecting PEMS operation, PEMS principal of operation including physical assumptions and mathematical manipulations supporting its operation, specific details on the testing to be performed for the PEMS training, data recorder scale, sensors to be used and sensor evaluation system, plan to detect and notify operator of parameter envelope exceedences, and recordkeeping. If the boiler is operated beyond the PEMS operating envelopes at any time after the certification test, the data generated during this condition will not be acceptable for use in demonstrating compliance with applicable requirements. [District Rules 2201, 4702 and 40 CFR Subpart GG]

**Comment 6:**

While Condition 44 specifies that an initial RATA must be performed within 60 days of startup and at least once every four quarters, it does not contain any requirements for the submittal of a RATA test plan. We note that Condition 25 specifies requirements for "source testing" including that a source test plan must be submitted for approval 15 days prior to testing, that the District be notified at least 30 days prior to any source test and that the testing be conducted using methods

and procedures approved by the District, it appears that this condition is referring to the source test requirement in Condition 27 and not the RATA testing requirements in Condition 44. also notes that PS-16 provides different RATA testing requirements, depending on whether the PEMS is to be used to indicate excess emissions or verify continuous compliance standards. (See Section 2.1 – Initial PEMS Certification) The permit does not specify the purpose of the PEMS, therefore it is unclear which testing requirement must be met. Please revise or add a new condition to clarify that the source must submit an annual RATA test plan and quarterly RAA test plan for the PEMS and include provisions to specify when the protocol must be submitted, what content the protocol must include (e.g., for excess emissions or continuous compliance, in accordance with PS-16 RATA test requirements), and a provision that the RATA testing may only be performed after the District has approved the PEMS protocol.

**District Response to Comment 6:**

The following conditions were added to ATC N-1399-17-6 as conditions 51, 48, and 30 and ‘-24-2 as conditions 53, 55, and 31.

- Initial PEMS relative accuracy (RA) testing (RATA) must be conducted as specified in PS-16, Section 8.2 and must include 9 portable analyzer readings (RM, reference method) at each of low, medium, and high operating levels (3-level RA test). RA calculations using RM and PEMS data from the 3-level tests must be done using equations specified in PS-16, Section 12.2. [District Rules 2201, 4702 and 40 CFR Subpart GG]
- PEMS Relative Accuracy Test Audits (RATA) must not exceed +/- 20 percent absolute mean difference or 10 percent of applicable standard. For diluent PEMS, an alternative criterion of  $\pm 1$  percent absolute difference between the PEMS and RM may be used if less stringent.”, and Section 13.5 is modified to read: “Relative Accuracy Audits. The average of the three portable analyzer or RM determinations must not differ from the simultaneous PEMS average value by more than 2 ppm or the test is failed. For diluent PEMS, an alternative criterion of  $\pm 1$  percent absolute difference between the PEMS and the portable analyzer or RM determinations may be used if less stringent. [District Rules 1080, 2201, 4305, 4306, 4320 and 40 CFR Subpart Db, 40 CFR Part 64]
- The initial PEMS training and testing and source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]

**Comment 7:**

The current permit requires that the CEMS unit also be capable of measuring emissions during startup and shutdown periods if the CEMS passed the specified Relative Accuracy requirements for startup and shutdown periods. (See Condition 35 of existing permit and Condition 38 of proposed ATC.) If the CEMS has met these requirements and the source is currently required to operate the CEMS during periods of startup and shutdown, then the proposed PEMS must also be required to be used during these periods and meet the specified Relative Accuracy requirements. This is because the PEMS is replacing the CEMS and the PEMS must be able to

provide the same about of compliance verification information as the CEMS. Please verify if the CEMS is currently being used during startup and shutdown periods and revise this condition as necessary.

**District Response to Comment 7:**

The following condition was added to ATC N-1399-17-6 as condition 20 and '-24-2 as condition 42.

- The owner or operator may install, certify, maintain, operate and quality-assure a Predictive Emission Monitoring System (PEMS) which continuously predicts and records the exhaust gas NOX, CO and O2 concentrations. Predictive emissions monitor(s) shall be capable of predicting emissions during normal operating conditions, and during startups and shutdowns provided the PEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of PEMS cannot be demonstrated during startup conditions, PEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this permit. [District Rules 2201 and 4703 and 40 CFR 60.334(b)]

**Comment 8:**

Condition 26 specifies that the PEMS relative accuracy shall be determined in accordance with 40 CFR 60, Appendix F. Please correct this citation to PS16, Section 8.2, as modified, with the "as modified" portion referring to the revision stated in Comment 2 above.

**District Response to Comment 8:**

The following condition was added to ATC N-1399-17-6 as condition 48 and '-24-2 as condition 55.

- PEMS Relative Accuracy Test Audits (RATA) must not exceed +/- 20 percent absolute mean difference or 10 percent of applicable standard. For diluent PEMS, an alternative criterion of  $\pm 1$  percent absolute difference between the PEMS and RM may be used if less stringent.", and Section 13.5 is modified to read: "Relative Accuracy Audits. The average of the three portable analyzer or RM determinations must not differ from the simultaneous PEMS average value by more than 2 ppm or the test is failed. For diluent PEMS, an alternative criterion of  $\pm 1$  percent absolute difference between the PEMS and the portable analyzer or RM determinations may be used if less stringent. [District Rules 1080, 2201, 4305, 4306, 4320 and 40 CFR Subpart Db, 40 CFR Part 64]

**Comment 9:**

Condition 38 of the ATC uses the term "shall" regarding the installation and use of the PEMS. Given that the emission unit already has a certified CEMS, it seems that this condition should use the word "may", given that if the PEMS unit fails in anyway, the source will be required to maintain the existing CEMS and may be relieved of the requirement to install the proposed PEMS.

**District Response to Comment 9:**

The following condition was added to ATC N-1399-17-6 as condition 20 and '-24-2 as condition 42.

- The owner or operator may install, certify, maintain, operate and quality-assure a Predictive Emission Monitoring System (PEMS) which continuously predicts and records the exhaust gas NOX, CO and O2 concentrations. Predictive emissions monitor(s) shall be capable of predicting emissions during normal operating conditions, and during startups and shutdowns provided the PEMS passes the relative accuracy requirement for startups and shutdowns specified herein. If relative accuracy of PEMS cannot be demonstrated during startup conditions, PEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits contained in this permit. [District Rules 2201 and 4703 and 40 CFR 60.334(b)]

**Comment 10:**

Other District permits for equipment utilizing PEMS contain a condition to specify what actions a source must take if the PEMS fails an accuracy test or if there are changes in the equipment that would affect the PEMS. Please add a similar condition to this authority to construct, but please also specify how quickly the recertification test must occur. While PS16 allows up to 60 operating days or 180 calendar days for a retest, given the District's classification as an extreme ozone nonattainment area and that the emission limits for this unit constitute federal LAER, EPA suggests reducing the number of operating days allowed before a retest to no more than 30 days. The condition could read as follows:

If PEMS fails to pass a quarterly RAA or yearly RATA test, or if changes are made that could result in a significant change in the emissions rate (e.g. turbine aging, process modification, new process operating modes, or changes to emission controls) the PEMS must be recertified using the test procedures in Section 8.1 of PS16 within 30 days.

**District Response to Comment 10:**

The following condition was added to ATC N-1399-17-6 as condition 52 and '-24-2 as condition 57.

- If PEMS fails to pass a quarterly RAA or yearly RATA test, or if changes are made that could result in a significant change in the emissions rate (e.g. boiler aging, process modification, new process operating modes, or changes to emission controls) the PEMS must be recertified as specified in PS-16, Section 8.1 by the earlier of 30 operating days or 180 calendar days after the failed RATA or after the change that has caused a significant change in emission rate. [District Rules 2201, 4702 and 40 CFR Subpart GG]

**Comment 11:**

In order to properly train a PEMS, the emission unit may need to be operated "out of compliance" with the permitted emission limits. Neither the application evaluation nor the ATC conditions address this issue. Please revise the evaluation and/or the ATC conditions to address these periods of potential non-compliance. One option may be to provide a very limited period of operation in the ATC specifically for this purpose.

**District Response to Comment 11:**

The following conditions were added to ATC N-1399-17-6 as conditions 23 through 25 and 28 and '-24-2 as conditions 17 through 22.

- (ATC N-1399-17-6) Upon installation of PEMS equipment, emissions shall not exceed 7 ppmv NOx or 50 ppmv CO during initial PEMS training and testing for greater than 10 hours in any one day or a total of 16 hours. Initial PEMS training and testing period shall not exceed 30 consecutive days. [District Rule 2201]
- (ATC N-1399-24-4) Upon installation of PEMS equipment, emissions shall not exceed 5 ppmv NOx or 50 ppmv CO during initial PEMS training and testing for greater than 10 hours in any one day or a total of 16 hours. Initial PEMS training and testing period shall not exceed 30 consecutive days. [District Rule 2201]
- During startup and shutdown and initial 30-day PEMS training, NOx emissions shall not exceed 30.0 ppmvd @ 3% O2 or 0.036 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
- During startup and shutdown and initial 30-day PEMS training, CO emissions shall not exceed 200 ppmvd @ 3% O2 or 0.148 lb/MMBtu over 1-hour averaging period. Each one-hour period shall commence on the hour. [District Rules 2201, 4305, 4306 and 4320, 40 CFR Part 60.13(h)(1)]
- Permittee shall monitor and record the stack concentration of NOx and CO continuously using CEMS during PEMS training period. [District Rules 2201 and 4320]

**Comment 12:**

Please revise Condition 44 to specify that the initial RATA testing is required within 60 days of installation of the PEMS, not "start up" of the unit, since this is an existing emissions unit.

**District Response to Comment 12:**

The following condition has been revised on ATC N-1399-17-6 as condition 53 and '-24-2 as condition 52.

- The owner/operator shall perform an initial RATA for NOx, CO and O2 within 60 days of installation of the PEMS. After the initial startup RATA, the facility shall conduct a RATA at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the predictive emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix B Performance Specification 16. [District Rules 1080, 2201, 4305, 4306 and 4320]