



JAN 19 2010

Gerardo C. Rios, Chief  
Permits Office  
Air Division  
U.S. EPA - Region IX  
75 Hawthorne St  
San Francisco, CA 94105

Re: **Notice of Minor Title V Permit Modification**  
**District Facility # C-195**  
**Project # C-1093805**

Dear Mr. Rios:

Enclosed for you to review is an application for minor Title V permit modification for the facility identified above. California State Prison - Avenal is proposing a Title V minor permit modification to incorporate the recently issued Authorities to Construct (ATC) C-195-12-6 and -13-6 into the Title V operating permit. The proposed project is to tune the burners of two existing natural gas-fired boilers to meet the 7 ppmvd @ 3% O<sub>2</sub> (equivalent to 0.008 lb/MMBtu) NO<sub>x</sub> emission requirements of District Rule 4320, "Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater Than 5.0 MMBtu/hr". There will not be an increase in potential emissions of any criteria pollutant as a result of the proposed project.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued Authorities to Construct (ATC) C-195-12-6 and -13-6, emission increases, application, and previous Title V permit. Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter.

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

Sincerely,



David Warner  
Director of Permit Services

Enclosures

**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



JAN 19 2010

Michele Helmar  
California State Prison - Avenal  
PO Box 8  
Avenal, CA 93204

**Re: Notice of Minor Title V Permit Modification  
District Facility # C-195  
Project # C-1093805**

Dear Ms. Helmar:

Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to incorporate recently issued Authorities to Construct (ATC) C-195-12-6 and -13-6 into the Title V operating permit. The proposed project is to tune the burners of two existing natural gas-fired boilers to meet the 7 ppmvd @ 3% O2 (equivalent to 0.008 lb/MMBtu) NOx emission requirements of District Rule 4320, "Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater Than 5.0 MMBtu/hr". There will not be an increase in potential emissions of any criteria pollutant as a result of the proposed project.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued Authorities to Construct (ATC) C-195-12-6 and -13-6, emission increases, application, and previous Title V permit. This project will be subject to a 45-day EPA commenting period prior to the District taking final action.

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

Sincerely,

David Warner  
Director of Permit Services

Enclosures

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

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# TITLE V APPLICATION REVIEW

Minor Modification  
Project #: C-1093805

Engineer: Ramon Norman  
Date: January 11, 2010

Facility Number: C-195  
Facility Name: California State Prison - Avenal  
Mailing Address: PO Box 8  
Avenal, CA 93204

Contact Name: Michele Helmar  
Phone: (559) 386-0587 ext. 5033

Responsible Official: Michele Helmar  
Title: Associate Warden, Business Services

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## I. PROPOSAL

California State Prison - Avenal is proposing a Title V minor permit modification to incorporate the recently issued Authorities to Construct (ATC) C-195-12-6 and -13-6 into the Title V operating permit. The facility proposes to tune the burners of two existing natural gas-fired boilers to meet the 7 ppmvd @ 3% O<sub>2</sub> (equivalent to 0.008 lb/MMBtu) NO<sub>x</sub> emission requirements of District Rule 4320, "Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater Than 5.0 MMBtu/hr".

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

## II. FACILITY LOCATION

The facility is located at #1 Kings Way in the city of Avenal in Kings County, CA

## III. EQUIPMENT DESCRIPTION

**C-195-12-7:** 25.1 MMBTU/HR CLEAVER BROOKS MODEL CB200-600, 150# PACKAGED FIRE-TUBE NATURAL GAS-FIRED BOILER, SN L92694, WITH ALZETA CSB-252R LOW-NOX BURNERS AND O2 CONTROLLER

**C-195-13-7:** 25.1 MMBTU/HR CLEAVER BROOKS MODEL CB200-600, 150# PACKAGED FIRE-TUBE NATURAL GAS-FIRED BOILER, SN L92695, WITH ALZETA CSB-252R LOW-NOX BURNERS AND O2 CONTROLLER

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

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

#### **V. APPLICABLE REQUIREMENTS**

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

#### **VI. DESCRIPTION OF PROPOSED MODIFICATIONS**

California State Prison - Avenal is proposing to incorporate the recently issued Authorities to Construct (ATC) C-195-12-6 and -13-6 into the Title V operating permit. The facility proposes to tune the burners of two existing natural gas-fired boilers to meet the 7 ppmvd @ 3% O<sub>2</sub> (equivalent to 0.008 lb/MMBtu) NO<sub>x</sub> emission requirements of District Rule 4320, "Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater Than 5.0 MMBtu/hr". There will not be an increase in potential emissions of any criteria pollutant as a result of the proposed project.

The permit units modified under this project were identical in function, as such, the previous Title V operating permits are nearly identical. The modifications made to these units were identical in nature, so the modifications to the operating permits were nearly identical. Therefore, the description of the modifications to the permit conditions will be combined where applicable. The exceptions will be listed under the specific permit units below:

##### C-195-12-7 & -13-7:

Condition 1 of the current permits (C-195-12-5 & -13-5), which limited concurrent operation of the units and gas turbines, has been included as condition 1 of the proposed permits (C-195-12-7 & -13-7).

The requirements of condition 2 of the current permits (C-195-12-5 & -13-5), which specify emission limits, have been included as condition 4 of the proposed permits (C-195-12-7 & -13-7). The NO<sub>x</sub> emission limit has been reduced from 9 ppmv @ 3% O<sub>2</sub> to 7 ppmv @ 3% O<sub>2</sub> to satisfy District Rule 4320.

Condition 3 of the ATCs (C-195-12-6 & -13-6), which prohibits emissions that cause a public nuisance and is not federally enforceable, was not included in the proposed permits since this condition is already included as Condition 1 of the facility-wide permit (C-195-0-1).

Condition 4 of the ATCs (C-195-12-6 & -13-6), which prohibits particulate matter concentration emissions, has been added as Condition 2 of the proposed permits (C-195-12-7 & -13-7)

Condition 3 of the current permits (C-195-12-5 & -13-5), which specified that the boilers be fired on PUC natural gas, has been included as condition 3 of the proposed permits (C-195-12-7 & -13-7).

The requirements of conditions 4-12 of the current permits (C-195-12-5 & -13-5), which specify procedures and methods for source testing procedures to demonstrate compliance, have been included as conditions 5-13 of the proposed permits (C-195-12-7 & -13-7).

Condition 6 of the ATCs (C-195-12-6 & -13-6), which limit visible emissions to 20% opacity (Ringlemann 1), was not included in the proposed permit since this condition is already included as Condition 23 of the facility-wide permit (C-195-0-1).

The requirements of condition 13 of the current permits (C-195-12-5 & -13-5), which requires that records be maintained for five years, have been included as condition 21 of the proposed permits (C-195-12-7 & -13-7).

Conditions 14-16 of the current permits (C-195-12-5 & -13-5), which require recordkeeping and that the equipment be maintained in good operating condition, have been included as conditions 14-16 of the proposed permits (C-195-12-7 & -13-7).

Conditions 17-20 of the current permits (C-195-12-5 & -13-5), which emission specify monitoring procedures, have been included as conditions 17-20 of the proposed permits (C-195-12-7 & -13-7).

## **VII. COMPLIANCE**

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;

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

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

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

## VIII. ATTACHMENTS

- A. Proposed Modified Title V Operating Permit No. C-195-12-7 & -13-7
- B. Authorities to Construct No. C-195-12-6 & -13-6
- C. Emissions Increases
- D. Application
- E. Previous Title V Operating Permit No. C-195-12-5 & -13-5

# ATTACHMENT A

Proposed Modified Title V Operating Permit  
No. C-195-12-7 & -13-7

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-195-12-7

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

25.1 MMBTU/HR CLEAVER BROOKS MODEL CB200-600, 150# PACKAGED FIRE-TUBE NATURAL GAS-FIRED BOILER, SN L92694, WITH ALZETA CSB-252R LOW-NOX BURNERS AND O2 CONTROLLER

## PERMIT UNIT REQUIREMENTS

1. Concurrent operation of two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) and two 2600 kW turbines (C-195-1 and C-195-3) shall not exceed 2,601 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.008 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.014 lb-PM<sub>10</sub>/MMBtu, 100 ppmvd CO @ 3% O<sub>2</sub> or 0.061 lb-CO/MMBtu, or 0.004 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
5. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (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 twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
6. 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
7. 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
8. 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
9. 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
10. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. 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
12. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4306 and 4320] Federally Enforceable Through Title V Permit
13. 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
14. Daily records of hours of concurrent operation of two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) and two 2600 kW turbines (C-195-1 and C-195-3) shall be maintained. [District Rule 1070] Federally Enforceable Through Title V Permit
15. Copies of all fuel invoices, gas purchase contract, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. Operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
16. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere [District Rule 2201] Federally Enforceable Through Title V Permit
17. 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 using a portable emission monitor that meets District specifications. Monitoring shall not be required if the 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 unless it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
18. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken 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 (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
20. 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 [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
21. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

DRAFT

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-195-13-7

EXPIRATION DATE: 10/31/2009

## EQUIPMENT DESCRIPTION:

25.1 MMBTU/HR CLEAVER BROOKS MODEL CB200-600, 150# PACKAGED FIRE-TUBE NATURAL GAS-FIRED BOILER, SN L92695, WITH ALZETA CSB-252R LOW-NOX BURNERS AND O2 CONTROLLER

## PERMIT UNIT REQUIREMENTS

1. Concurrent operation of two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) and two 2600 kW turbines (C-195-1 and C-195-3) shall not exceed 2,601 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.008 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.014 lb-PM<sub>10</sub>/MMBtu, 100 ppmvd CO @ 3% O<sub>2</sub> or 0.061 lb-CO/MMBtu, or 0.004 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
5. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (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 twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
6. 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
7. 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
8. 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
9. 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
10. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. NOx 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
12. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4306 and 4320] Federally Enforceable Through Title V Permit
13. 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
14. Daily records of hours of concurrent operation of two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) and two 2600 kW turbines (C-195-1 and C-195-3) shall be maintained. [District Rule 1070] Federally Enforceable Through Title V Permit
15. Copies of all fuel invoices, gas purchase contract, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. Operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
16. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere [District Rule 2201] Federally Enforceable Through Title V Permit
17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month using a portable emission monitor that meets District specifications. Monitoring shall not be required if the 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 unless it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken 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 (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (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 [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
21. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

DRAFT

# ATTACHMENT B

Authorities to Construct  
No. C-195-12-6 & -13-6



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** C-195-12-6

**ISSUANCE DATE:** 09/14/2009

**LEGAL OWNER OR OPERATOR:** CALIF STATE PRISON - AVENAL  
**MAILING ADDRESS:** PO BOX 8  
AVENAL, CA 93204

**LOCATION:** 1 KINGS WAY  
AVENAL, CA 93204

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF A 25.1 MMBTU/HR CLEAVER BROOKS MODEL CB200-600, 150# PACKAGED FIRE-TUBE NATURAL GAS-FIRED BOILER, SN L92694, WITH ALZETA CSB-252R LOW-NOX BURNERS, AND O2 CONTROLLER: RETUNE THE BURNER TO ACHIEVE 7 PPMVD-NOX @ 3% O2 (0.008 LB-NOX/MMBTU)

### 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. Concurrent operation of two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) and two 2600 kW turbines (C-195-1 and C-195-3) shall not exceed 2,601 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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]
7. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O2 or 0.061 lb-CO/MMBtu, or 0.004 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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

*for David Warner*  
\_\_\_\_\_  
DAVID WARNER, Director of Permit Services  
C-195-12-6 : Sep 14 2009 10:00AM - GARCIAJ : Joint Inspection NOT Required

8. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (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 twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306 and 4320]
10. 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
11. 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
12. 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
13. 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
14. 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
15. 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
16. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4306 and 4320] Federally Enforceable Through Title V Permit
17. 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
18. Daily records of hours of concurrent operation of two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) and two 2600 kW turbines (C-195-1 and C-195-3) shall be maintained. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Copies of all fuel invoices, gas purchase contract, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. Operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
20. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere [District Rule 2201] Federally Enforceable Through Title V Permit
21. 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 using a portable emission monitor that meets District specifications. Monitoring shall not be required if the 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 unless it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

22. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken 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 (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
24. 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 [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070, 4305, 4306 and 4320]



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** C-195-13-6

**ISSUANCE DATE:** 09/14/2009

**LEGAL OWNER OR OPERATOR:** CALIF STATE PRISON - AVENAL  
**MAILING ADDRESS:** PO BOX 8  
AVENAL, CA 93204

**LOCATION:** 1 KINGS WAY  
AVENAL, CA 93204

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF A 25.1 MMBTU/HR CLEAVER BROOKS MODEL CB200-600, 150# PACKAGED FIRE-TUBE NATURAL GAS-FIRED BOILER, SN L92695, WITH ALZETA CSB-252R LOW-NOX BURNERS AND O2 CONTROLLER. RETUNE THE BURNER TO ACHIEVE 7 PPMVD-NOX @ 3% O2 (0.008 LB-NOX/MMBTU)

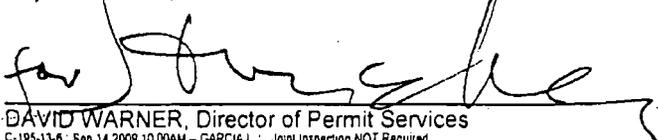
### CONDITIONS

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. Concurrent operation of two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) and two 2600 kW turbines (C-195-1 and C-195-3) shall not exceed 2,601 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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]
7. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O2 or 0.061 lb-CO/MMBtu, or 0.004 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

C-195-13-6 : Sep 14 2009 10:00AM - GARCIAJ : Joint Inspection NOT Required

8. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (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 twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306 and 4320]
10. 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
11. 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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13. 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
14. 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
15. 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
16. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 4306 and 4320] Federally Enforceable Through Title V Permit
17. 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
18. Daily records of hours of concurrent operation of two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) and two 2600 kW turbines (C-195-1 and C-195-3) shall be maintained. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Copies of all fuel invoices, gas purchase contract, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. Operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
20. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere [District Rule 2201] Federally Enforceable Through Title V Permit
21. 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 using a portable emission monitor that meets District specifications. Monitoring shall not be required if the 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 unless it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

22. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken 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 (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
24. 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 [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070, 4305, 4306 and 4320]

# ATTACHMENT C

## Emissions Increases

	SSIPE (lb/yr)				
	NOx	SOx	PM10	CO	VOC
ATC C-195-12-6	-660	0	0	0	0
ATC C-195-13-6	-660	0	0	0	0
<b>TOTAL</b>	<b>-1,320</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

# ATTACHMENT D

Application

RECEIVED

# San Joaquin Valley Air Pollution Control District

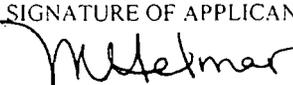
SEP 24 2009

www.valleyair.org

## Permit Application For:

Permits Srvc  
SJVAPCD

ADMINISTRATIVE AMENDMENT     MINOR MODIFICATION     SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: AVENAL STATE PRISON	
2. MAILING ADDRESS: STREET/P.O. BOX: CALIFORNIA STATE PRISON - AVENAL PO BOX 8 CITY: AVENAL STATE: CA 9-DIGIT ZIP CODE: 93204	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: #1 KINGS WAY CITY: AVENAL SECTION TOWNSHIP RANGE	INSTALLATION DATE: PRIOR TO JULY 1, 2010
4. GENERAL NATURE OF BUSINESS: STATE PRISON	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary)  MODIFICATION OF PERMIT UNITS C-195-12-5 AND C-195-13-5 (#1 AND #2 BOILERS)  MODIFICATION OF TWO 25.1 MMBTU/HR CLEAVER BROOKS MODEL CB200-600, 150 # PACKAGED FIRE TUBE NATURAL GAS FIRED BOILERS WITH ALZETA CSB-252R LOW-NOX BURNERS AND O2 CONTROLLER: RETUNE THE BURNER TO ACHIEVE 7 PPMVD-NOX @ 3% O2 (0.008 LB-NOX/MMBTU).	
6. TYPE OR PRINT NAME OF APPLICANT: MICHELE HELMAR	TITLE OF APPLICANT: ASSOCIATE WARDEN, BUSINESS SERVICES
7. SIGNATURE OF APPLICANT: 	DATE: 9/22/09 PHONE: (559) 386-0587 EXT 5033 FAX: (559) 386-6054 EMAIL:

### For APCD Use Only:

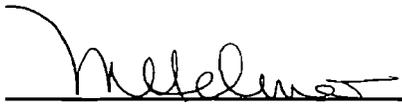
DATE STAMP	FILING FEE RECEIVED: \$ 	CHECK#: _____
	DATE PAID: _____	
	PROJECT NO: C-1093805	FACILITY ID: C-195

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

**TITLE V CERTIFICATION OF TRUTH AND ACCURACY**

Company Name: AVENAL STATE PRISON	Facility ID: C - 195
-----------------------------------	----------------------

I declare, under penalty of perjury under the laws of the state of California that based on information and belief formed after reasonable inquiry, all information provided in this report / submission is true, accurate, and complete:



\_\_\_\_\_  
Signature of Responsible Official

9/22/2009

\_\_\_\_\_  
Date

**MICHELE HELMAR**

\_\_\_\_\_  
Name of Responsible Official (please print)

**ASSOCIATE WARDEN, BUSINESS SERVICES**

\_\_\_\_\_  
Title of Responsible Official (please print)



# ATTACHMENT E

Previous Title V Operating Permit  
No. C-195-12-5 & -13-5

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-195-12-5

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

25.1 MMBTU/HR CLEAVER BROOKS MODEL CB200-600, 150# PACKAGED FIRE-TUBE NATURAL GAS-FIRED BOILER, SN L92694, WITH ALZETA CSB-252R LOW-NOX BURNERS, AND O2 CONTROLLER

## PERMIT UNIT REQUIREMENTS

---

1. Concurrent operation of two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) and two 2600 kW turbines (C-195-1 and C-195-3) shall not exceed 2,601 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Emissions rates shall not exceed any of the following limits: 9 ppmv NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.011 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.014 lb-PM<sub>10</sub>/MMBtu, 100 ppmv CO @ 3% O<sub>2</sub> or 0.061 lb-CO/MMBtu, or 0.004 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
3. Boiler shall only be fired with PUC regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (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 twelve (12) months. [District Rule 4305, 6.3.1] Federally Enforceable Through Title V Permit
5. 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
6. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5.1] Federally Enforceable Through Title V Permit
7. 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 4305. [District Rule 4305, 5.5.2] Federally Enforceable Through Title V Permit
8. 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 Rule 4305, 5.5.5] Federally Enforceable Through Title V Permit
9. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4305, 6.2] Federally Enforceable Through Title V Permit
10. 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 Rule 4305, 6.2] Federally Enforceable Through Title V Permit
11. Stack gas oxygen shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4305, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
13. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2520, 9.4.2, and 4305, 6.0 and 40 CFR Part 60.48c (g)] Federally Enforceable Through Title V Permit
14. Daily records of hours of concurrent operation of two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) and two 2600 kW turbines (C-195-1 and C-195-3) shall be maintained. [District Rule 1070] Federally Enforceable Through Title V Permit
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16. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
17. 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. Monitoring shall not be required if the 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 unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
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These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-195-13-5

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

25.1 MMBTU/HR CLEAVER BROOKS MODEL CB200-600, 150# PACKAGED FIRE-TUBE NATURAL GAS-FIRED BOILER, SN L92695, WITH ALZETA CSB-252R LOW-NOX BURNERS AND O2 CONTROLLER

## PERMIT UNIT REQUIREMENTS

---

1. Concurrent operation of two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) and two 2600 kW turbines (C-195-1 and C-195-3) shall not exceed 2,601 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Emissions rates shall not exceed any of the following limits: 9 ppmv NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.011 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.014 lb-PM<sub>10</sub>/MMBtu, 100 ppmv CO @ 3% O<sub>2</sub> or 0.061 lb-CO/MMBtu, or 0.004 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
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6. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305, 5.5.1] Federally Enforceable Through Title V Permit
7. 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 4305. [District Rule 4305, 5.5.2] Federally Enforceable Through Title V Permit
8. 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 Rule 4305, 5.5.5] Federally Enforceable Through Title V Permit
9. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4305, 6.2] Federally Enforceable Through Title V Permit
10. 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 Rule 4305, 6.2] Federally Enforceable Through Title V Permit
11. Stack gas oxygen shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4305, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. 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
13. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2520, 9.4.2, and 4305, 6.0 and 40 CFR Part 60.48c (g)] Federally Enforceable Through Title V Permit
14. Daily records of hours of concurrent operation of two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) and two 2600 kW turbines (C-195-1 and C-195-3) shall be maintained. [District Rule 1070] Federally Enforceable Through Title V Permit
15. Copies of all fuel invoices, gas purchase contract, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. Operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
16. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
17. 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. Monitoring shall not be required if the 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 unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
18. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken 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 (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
20. 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. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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