



MAR 21 2012

Michelle Helmar Calif State Prison - Avenal PO Box 8 Avenal, CA 93204

Re: Notice of Preliminary Decision - Title V Permit Renewal

> District Facility # C-0195 Project # C-1103198

Dear Ms. Helmar:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Calif State Prison - Avenal for its correctional facility at 1 Kings Way in Kings County, California.

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

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

Sincerely,

**David Warner** 

**Director of Permit Services** 

Attachments

C: Jesse A. Garcia, Permit Services Engineer

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

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

Southern Region





MAR 21 2012

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

Notice of Preliminary Decision – Title V Permit Renewal

District Facility # C-0195 Project # C-1103198

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Calif State Prison - Avenal for its correctional facility at 1 Kings Way in Kings County, California.

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

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

Sincerely,

David Warner

Director of Permit Services

Attachments

C: Jesse A. Garcia, Permit Services Engineer

Seyed Sadredin

Executive Oirector/Air Pollution Control Officer





MAR 21 2012

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

**Notice of Preliminary Decision - Title V Permit Renewal** Re:

> **District Facility # C-0195** Project # C-1103198

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Calif State Prison - Avenal for its correctional facility at 1 Kings Way in Kings County, California.

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

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

Sincerely,

David Warner

Director of Permit Services

**Attachments** 

C: Jesse A. Garcia, Permit Services Engineer

Seved Sadredin

Executive Oirector/Air Pollution Control Officer

#### NOTICE OF PRELIMINARY DECISION FOR THE PROPOSED RENEWAL OF THE FEDERALLY MANDATED OPERATING PERMIT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed renewal of the Federally Mandated Operating Permit to Calif State Prison - Avenal for its correctional facility at 1 Kings Way in Kings County, California.

The District's analysis of the legal and factual basis for this proposed action, #C-1103198. project is available for public inspection http://www.valleyair.org/notices/public notices idx.htm and the District office at the address below. There is a reduction of emissions associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the proposed renewal of the Federally Mandated Operating permit. If requested by the public, the District will hold a public hearing regarding issuance of this renewed permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed renewed permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE. FRESNO, CALIFORNIA 93726-0244.

# SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

### Proposed Title V Permit Renewal Evaluation Calif State Prison - Avenal C-0195

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#### TITLE V PERMIT RENEWAL EVALUATION

#### **Correctional Institution**

Engineer: Jesse A. Garcia

Date: March 5, 2012

Facility Number: C-0195

Facility Name: Calif State Prison – Avenal

Mailing Address: PO Box 8

Avenal, CA 93204

Contact Name: Michelle Helmar

Phone: (559) 386-5033

Responsible Official: Michelle Helmar

Title: Associate Warden, Business Services

**Project #:** C-1103198

Deemed Complete: October 19, 2010

#### I. PROPOSAL

Calif State Prison – Avenal was issued a Title V permit on May 31, 2005. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the initial Title V permit.

The purpose of this evaluation is to provide the legal and factual basis for all updated applicable requirements and to determine if the facility will comply with these updated requirements. It also specifically identifies all additions, deletions, and/or changes made to permit conditions or equipment descriptions.

#### II. FACILITY LOCATION

Calif State Prison – Avenal is located at 1 Kings Way in Kings County, CA.

#### III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is included as Attachment A.

#### IV. GENERAL PERMIT TEMPLATE USAGE

The applicant does not propose to use any model general permit templates.

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

The applicant is not requesting any model general permit templates. Therefore, all federally enforceable conditions in this current Title V permit will be subject to EPA and public review.

#### VI. FEDERALLY ENFORCEABLE REQUIREMENTS

#### A. Rules Updated

- District Rule 2020, <u>Exemptions</u>
   (amended March 21, 2002 ⇒ amended August 18, 2011)
- District Rule 2201, <u>New and Modified Stationary Source Review Rule</u> (amended April 21, 2011)
- District Rule 4101, <u>Visible Emissions</u>
   (amended November 15, 2001 ⇒ amended February 17, 2005)
- District Rule 4306, <u>Boilers, Steam Generators, and Process Heaters Phase 3</u>
   (Amended March 17, 2005 ⇒ amended October 16, 2008)
- District Rule 4320, <u>Advanced Emission Reduction Options for Boilers</u>, <u>Steam Generators</u>, and <u>Process Heaters Greater Than 5.0 MMBtu/hr</u> (adopted October 16, 2008)
- District Rule 4601, <u>Architectural Coatings</u>
   (Amended October 31, 2001 ⇒ amended December 17, 2009)
- District Rule 4603, <u>Surface Coating of Metal Parts and Products</u>, <u>Plastic Parts and Products</u>, <u>and Pleasure Craft</u>
   (amended October 16, 2008 ⇒ amended September 17, 2009)

- District Rule 4606, Wood Products and Flat Wood Paneling Products
   Coating Operation
   (amended September 20, 2007 ⇒ amended October 16, 2008)
- District Rule 4612, Motor Vehicle and Mobile Equipment Coating <u>Operations</u>
   (amended September 20, 2007 ⇒ amended October 21, 2010)
- District Rule 4621, <u>Gasoline Transfer into Stationary Storage Containers</u>, <u>Delivery Vessels</u>, and <u>Bulk Plants</u> (amended June 18, 1998 ⇒ amended December 20, 2007)
- District Rule 4622, <u>Gasoline Transfer into Motor Vehicle Fuel Tanks</u> (amended September 19, 2002 ⇒ amended December 20, 2007)
- District Rule 4702, <u>Internal Combustion Engines Phase 2</u> (adopted August 21, 2003 ⇒ amended August 18, 2011)
- District Rule 4703, <u>Stationary Gas Turbines</u>
   (amended October 16, 1997 ⇒ amended September 20, 2007)
- District Rule 8011, General Requirements (amended August 19, 2004)
- District Rule 8021, <u>Construction</u>, <u>Demolition</u>, <u>Excavation</u>, <u>Extraction</u>, and <u>Other Earthmoving Activities</u> (amended August 19, 2004)
- District Rule 8031, <u>Bulk Materials</u> (amended August 19, 2004)
- District Rule 8041, <u>Carryout and Trackout</u> (amended August 19, 2004)
- District Rule 8051, <u>Open Areas</u> (amended August 19, 2004)
- District Rule 8061, <u>Paved and Unpaved Roads</u> (amended August 19, 2004)
- District Rule 8071, <u>Unpaved Vehicle/Equipment Traffic Areas</u> (amended September 16, 2004)
- 40 CFR Part 82, Subpart F, <u>Stratospheric Ozone</u> (Amended June 8, 2008)

#### **B. Rules Removed**

District Rule 4602, Motor Vehicle Assembly Coatings
 (amended September 21, 2006 ⇒ amended September 17, 2009)

This rule was amended which changed applicability. District Rule 4612 is now applicable.

#### C. Rules Added

- 40 CFR 60 Subpart IIII <u>Standards of Performance for Stationary</u> <u>Compression Ignition Internal Combustion Engines</u>
- 40 CFR 60 Subpart KKKK <u>Standards of Performance for Stationary</u> <u>Combustion Turbines</u>
- 40 CFR 63 Subpart YYYY <u>National Emissions Standards for Hazardous</u> Air Pollutants for Stationary Combustion Turbines
- 40 CFR Part 63, Subpart ZZZZ <u>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</u>

#### D. Rules Not Updated

- District Rule 1070, Inspections (amended December 17,1992)
- District Rule 1081, Source Sampling (amended December 16,1993)
- District Rule 1100, <u>Equipment Breakdown</u> (amended December 17, 1992)
- District Rule 1160, Emission Statements (adopted November 18, 1992)
- District Rule 2010, Permits Required (amended December 17,1992)
- District Rule 2031, <u>Transfer of Permits</u> (amended December 17,1992)
- District Rule 2040, Applications (amended December 17,1992)
- District Rule 2070, <u>Standards for Granting Applications</u> (amended December 17,1992)

- District Rule 2520, <u>Federally Mandated Operating Permits</u> (adopted June 15, 1995 ⇒ amended June 21, 2001)
- District Rule 4102, <u>Nuisance</u>
   (Adopted May 21, 1992 ⇒ amended December 17, 1992)
- District Rule 4201, <u>Particulate Matter Concentration</u> (amended December 17, 1992)
- District Rule 4301, <u>Fuel Burning Equipment</u>
   (Adopted May 21, 1992 ⇒ amended December 17, 1992
- District Rule 4305, <u>Boilers, Steam Generators, and Process Heaters Phase 2</u>
   (Amended December 19, 2002 ⇒ amended August 21, 2003)
- District Rule 4701, <u>Internal Combustion Engines Phase I</u> (amended August 21, 2003)
- District Rule 4801, Sulfur Compounds (amended December 17, 1992)
- 40 CFR Part 60, Subpart GG, <u>New Source Performance Standards</u>; Standard of Performance for Stationary Gas Turbines
- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos
- 40 CFR Part 82, Subpart B, <u>Servicing of Motor Vehicle Air Conditioners</u>
- 40 CFR Part 64, Compliance Assurance Monitoring (CAM)

#### VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

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

For this facility, the following are not federally enforceable and will not be discussed in further detail:

#### A. Rules Added

There are no new rules that are not federally enforceable being added at this time.

#### **B.** Rules Not Updated

• District Rule 4102, Nuisance (as amended December 17, 1992)

For this facility, condition #1 of the facility wide requirements C-195-0-2 is based on District Rule 4102 listed above and is not Federally Enforceable through Title V.

#### VIII. PERMIT REQUIREMENTS

The purpose of this evaluation is to review changes to federally enforceable requirements; therefore, this compliance section will only address rules that have been amended or added and additional requirements placed on the permit per EPA request since the issuance of the initial Title V permit.

#### A. District Rule 2020 - Exemptions

District Rule 2020 lists equipment which is specifically exempt from obtaining permits and specifies recordkeeping requirements to verify such exemptions. The amendments to this rule do not have any affect on current permit requirements and will therefore not be addressed in this evaluation.

#### B. District Rule 2201 - New and Modified Stationary Source Review Rule

District Rule 2201 has been amended since this facility's initial Title V permit was issued. This Title V permit renewal does not constitute a modification per section 3.26, defined as an action including at least one of the following items:

- 1) Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.
- Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.
- 3) An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.

- 4) Addition of any new emissions unit which is subject to District permitting requirements.
- 5) A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

Therefore, the updated requirements of this rule are not applicable at this time.

#### C. District Rule 2520 - Federally Mandated Operating Permits

This rule was recently amended to incorporate several administrative corrections, clarify rule language, and add procedures for implementing compliance schedules. The only amendments to this rule that will have an effect on current permit requirements are the corrections to Section 9 rule references, as described in the following table:

| Old Rule Section | Corrected Rule Section |
|------------------|------------------------|
| 9.3              | 9.2                    |
| 9.4              | 9.3                    |
| 9.5              | 9.4                    |
| 9.6              | 9.5                    |
| 9.7              | 9.6                    |
| 9.8              | 9.7                    |
| 9.9              | 9.8                    |
| 9.10             | 9.9                    |
| 9.11             | 9.10                   |
| 9.12             | 9.11                   |
| 9.13             | 9.12                   |
| 9.14             | 9.13                   |
| 9.15             | 9.14                   |
| 9.16             | 9.15                   |
| 9.17             | 9.16                   |
| 9.18             | 9.17                   |
| 9.19             | 9.18                   |

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

#### D. District Rule 4101 - Visible Emissions

District Rule 4101 has been submitted to the EPA to replace SIP approved Rule 401 (all counties of the SJVUAPCD). EPA made a preliminary determination that District Rule 4101 is "more stringent" than the county versions previously referenced, per correspondence dated August 20, 1996.

<u>Section 5.0</u> prohibits the discharge of any air contaminant for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart; or is of such opacity as to obscure an observer's view to a degree equal to or greater than the smoke described in Section 5.1 of Rule 4101. Condition 23 of permit unit -0-2 ensures compliance.

## E. District Rule 4306 – <u>Boilers, Steam Generators, and Process Heaters</u> – Phase 3

The purpose of this rule is to limit the emissions of oxides of nitrogen ( $NO_X$ ), carbon monoxide (CO), oxides of sulfur ( $SO_2$ ), and particulate matter 10 microns or less ( $PM_{10}$ ) from boilers, steam generators, and process heaters.

In general, the provisions of this rule are similar, except that the  $NO_x$  emission limit is more stringent in District Rule 4320.

The following permit requirements ensure compliance with this rule:

#### a. C-195-2-10 - 19.959 MMBtu/hr Boiler

 Conditions 4, 10 through 21 and 25 on the proposed permit ensure compliance with this rule.

#### b. C-195-12-8 – 25,1 MMBtu/hr Boiler

• Conditions 4, 5, 6 through 12 and 17 through 21 on the proposed permit ensure compliance with this rule.

# F. District Rule 4320 – <u>Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater Than 5.0 MMBtu/hr</u>

The purpose of this rule is to limit the emissions of oxides of nitrogen  $(NO_X)$ , carbon monoxide (CO), oxides of sulfur  $(SO_2)$ , and particulate matter 10 microns or less  $(PM_{10})$  from boilers, steam generators, and process heaters.

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

- Section 5.1.1 requires the unit comply with the emission limits specified in Sections 5.2 and 5.4; or
- Section 5.1.2, 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.

The following permit requirements ensure compliance with this rule:

#### a. C-195-2-10 – 19.959 MMBtu/hr Boiler

 Conditions 4, 10 through 21 and 25 on the proposed permit ensure compliance with this rule.

#### b. <u>C-195-12-8 – 25,1 MMBtu/hr Boiler</u>

 Conditions 4, 5, 6 through 12 and 17 through 21 on the proposed permit ensure compliance with this rule.

#### G. District Rule 4601 - Architectural Coatings

This rule limits VOC emissions from architectural coatings. This rule is applicable to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures, blends or repackages any architectural coating. The rule was amended in December 17, 2009 and approved into the SIP on November 8, 2011.

The following permit requirements ensure compliance with this rule:

#### a. C-195-0-2 – Facility-Wide Requirements

 Conditions 24 through 26 on the proposed permit ensure compliance with this rule.

# H. District Rule 4603 – <u>Surface Coating of Metal Parts and Products</u>, <u>Plastic Parts and Products</u>, and <u>Pleasure Craft</u>

The purpose of this rule is to limit VOC emissions from metal parts and products coating operations and similar affected facilities. The most recent amendment to the rule was adopted October 16, 2008 and approved into the SIP on January 19, 2010.

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#### a. <u>C-195-9-4 – Automotive, Metal Parts/Products and Wood Products Paint</u> Spraying Operation

Conditions on the current Permit to Operate that limit the VOC content of coatings and solvents have been updated or replaced on the proposed Permit to Operate to ensure compliance with the VOC limits of the current rule. The testing and record keeping requirements have likewise been updated. The District has verified that conditions 8, 11 through 23, 27, 28, 31 and 33 through 35 on the proposed permit will ensure compliance with the requirements of this rule.

Baked specialty coatings condition 17 on the current Permit to Operate was removed as there is no curing oven associated with this unit.

# 1. District Rule 4606 – <u>Wood Products and Flat Wood Paneling Products</u> <u>Coating Operation</u>

The purpose of this rule is to limit VOC emissions from wood products coating operations and similar affected facilities. The most recent amendment to the rule was adopted October 16, 2008 and approved into the SIP on October 15, 2009.

# a. <u>C-195-9-4 – Automotive, Metal Parts/Products and Wood Products Paint Spraying Operation</u>

Conditions on the current Permit to Operate that limit the VOC content of coatings and solvents have been updated or replaced on the proposed Permit to Operate to ensure compliance with the VOC limits of the current rule. The testing and record keeping requirements have likewise been updated. The District has verified that conditions 6, 9, 26 through 30, and 35 through 37 on the proposed permit will ensure compliance with the requirements of this rule.

## J. District Rule 4612 – <u>Motor Vehicle and Mobile Equipment Coating</u> <u>Operations</u>

The purpose of this rule is to limit VOC emissions from motor vehicle and mobile equipment coating operations and similar affected facilities. The most recent amendment to the rule was adopted October 21, 2010 but has not been approved into the SIP yet. The most recent SIP-approved amendment was adopted on September 20, 2007 and approved into the SIP on January 19, 2010. The non-SIP version of the rule was amended to remove redundant language and clarify the intent and requirements of the rule, but not to affect the meaning, scope, or prohibitions included in the rule. Therefore, the

current version of Rule 4612 is at least as stringent as the SIP-approved version of the rule.

### a. <u>C-195-9-4 – Automotive, Metal Parts/Products and Wood Products Paint</u> Spraying Operation

Conditions on the current Permit to Operate that limit the VOC content of coatings and solvents have been updated or replaced on the proposed Permit to Operate to ensure compliance with the VOC limits of the current rule. The testing and record keeping requirements have likewise been updated. The District has verified that conditions 10, 13, 29, 30 through 32, 34 through 37 on the proposed permit will ensure compliance with the requirements of this rule.

### K. District Rule 4621 – <u>Gasoline Transfer into Stationary Storage</u> Containers, Delivery Vessels, and Bulk Plants

The purpose of this rule is to limit VOC emissions from stationary storage containers, delivery vessels, and bulk plants and to provide the administrative requirements for determining compliance with this rule.

This rule applies to gasoline delivery vessels, tanks with capacity greater than 250 gallons, but not exceeding 19,800 gallons, located at gasoline bulk plants, and other stationary gasoline storage tanks with capacity greater than 250 gallons except for tanks subject to the requirements of Rule 4623 (Storage of Organic Liquids) Section 5.1 to 5.3.

#### a. C-195-17-2 – Gasoline Dispensing Operation

This unit is a gasoline dispensing operation with an aboveground storage tank served by a two-point Phase I vapor recovery system and a dispensing nozzle served by a Balance Phase II vapor recovery system. The District verified that conditions 1, 3 through 6, 10, 11, 14, 16 through 20 and 25 on the proposed permit will ensure compliance with this rule.

#### L. District Rule 4622 – Gasoline Transfer into Motor Vehicle Fuel Tanks

The purpose of this rule is to limit emissions of gasoline vapors from the transfer of gasoline into motor vehicle fuel tanks. This rule applies to any gasoline storage and dispensing facility at which gasoline is transferred into motor vehicle fuel tanks except as provided in Section 4.0.

#### a. C-195-17-2 - Gasoline Dispensing Operation

This unit is a gasoline dispensing operation with an aboveground storage tank served by a two-point Phase I vapor recovery system and a dispensing nozzle served by a Balance Phase II vapor recovery system. The District verified that conditions 1, 2, 4, 5, 7 through 10, 12 through 25 on the proposed permit will ensure compliance with this rule.

#### M. District Rule 4702 - Internal Combustion Engines - Phase 2

The purpose of this rule is to limit emissions of  $NO_x$ , CO, and VOC from stationary internal combustion (IC) engines. The most recent version of the rule was adopted on January 18, 2007 and approved into the SIP on January 10, 2008.

There is a more recently amended rule, August 18, 2011, which has been adopted by the District which has not been approved into the SIP. The latest amendment to the rule does not affect the requirements of emergency IC engines; therefore, the units for this facility will not be affected.

#### a. C-195-10-2 1608 bhp Emergency Engine, Cogeneration Facility

This unit is a diesel-fueled emergency IC engine powering a generator devoted to providing electricity in the event of a power outage. The District has verified that conditions 2, 9 through 13, 17, 18 and 20 on the proposed permit will ensure compliance with the requirements of this rule.

#### b. C-195-16-1 395 bhp Emergency Engine

This unit is a diesel-fueled emergency IC engine powering a generator devoted to providing electricity in the event of a power outage. The District has verified that conditions 3, 9 through 13, 18, 19 and 21 on the proposed permit will ensure compliance with the requirements of this rule.

#### N. District Rule 4703 - Stationary Gas Turbines

This rule applies to all stationary gas turbine systems, which are subject to District permitting requirements and with ratings equal to or greater than 0.3 megawatt (MW) or a maximum heat input rating of more than 3,000,000 Btu per hour.

The rule was amended on September 20, 2007. The District has verified that conditions 1, 9 through 12, 14, 17, 20 through 24, 27, 28, 31 and 32 on the

proposed permits (C-195-1-6 and C-195-3-6) will ensure compliance with the requirements of this rule prior to the revision in 2007.

The amendment of the rule on September 20, 2007 includes a Tier 3 compliance limit requirement which lowers the NOx emission limit from 35 parts per million volume dry (ppmvd) to 9 ppmvd.

Calif State Prison – Avenal notified the District in their Emission Control Plan submitted in May 2009 of their intention to comply with the requirements of the newly amended rule by installing a selective catalytic reduction (SCR) system on each unit. The facility began requesting funding from the State in early 2009; however, due to State budget concerns, funding has only recently been granted to install an SCR system on each turbine to reduce NOx emissions.

The facility petitioned the District's Hearing Board for a variance on March 17, 2011 and was granted a variance which includes the following requirements: Calif State Prison – Avenal shall submit permit applications to install SCRs on the turbines no later than January 1, 2012, the turbines shall be in full compliance by Rule 4703 by September 30, 2012, the facility shall submit to the District a summary report that includes the information as required in variance C-11-05R by October 15, 2012.

Calif State Prison – Avenal has submitted an ATC application, project C-1120008, to install an SCR system on each turbine. A detailed discussion of the Rule 4703 requirements will be included within the engineering evaluation performed as part of that ATC project. Therefore, no further discussion of Rule 4703 requirements is required at this time and the following conditions will be included as permit conditions #1 and #2 on permits C-195-1-6 and C-195-3-6 to ensure the facility complies with Rule 4703 in a timely fashion:

 In order to ensure compliance with the requirements of District Rule 4703, Stationary Gas Turbines, Authorities to Construct (ATCs) C-195-1-8 and C-195-3-8 shall be fully implemented by September 30, 2012. [District Rules 2520 and 4703]

#### O. District Rule 8011 - General Requirements

The purpose of Regulation VIII (Fugitive PM10 Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM10) by requiring actions to prevent, reduce, or mitigate anthropogenic fugitive dust emissions. The Rules contained in this Regulation have been developed pursuant to United States Environmental Protection Agency guidance for Serious PM10 Nonattainment Areas. The rules are applicable to specified anthropogenic fugitive dust sources. Fugitive dust contains PM10 and particles larger than

PM10. Controlling fugitive dust missions when visible emissions are detected will not prevent all PM10 emissions, but will substantially reduce PM10 emissions.

The provisions of this rule are applicable to specified outdoor fugitive dust sources. The definitions, exemptions, requirements, administrative requirements, recordkeeping requirements, and test methods set forth in this rule are applicable to all Rules under Regulation VIII (Fugitive PM10 Prohibitions) of the Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District.

#### a. C-195-0-2 - Facility-Wide Requirements

• Conditions 30 through 35 on the proposed permit ensure compliance with this rule.

## P. District Rule 8021 – <u>Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities</u>

The purpose of this rule is to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities.

This rule applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads to and from the site. This rule also applies to the construction of new landfill disposal sites or modification to existing landfill disposal sites prior to commencement of landfilling activities.

Section 5.0 requires that no person shall perform any construction, demolition, excavation, extraction, or other earthmoving activities unless the appropriate requirements in sections 5.1 and 5.2 are sufficiently implemented to limit VDE to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

#### a. C-195-0-2 – Facility-Wide Requirements

 Condition 30 on the proposed permit ensures compliance with this rule.

#### Q. District Rule 8031 - Bulk Materials

The purpose of this rule is to limit fugitive dust emissions from the outdoor handling, storage, and transport of bulk materials.

This rule applies to the outdoor handling, storage, and transport of any bulk material.

Section 5.0 requires that no person shall perform any outdoor handling, storage, and transport of bulk materials unless the appropriate requirements in Table 8031-1 of this rule are sufficiently implemented to limit VDE to 20% opacity or to comply with the conditions for a stabilized surface as defined in Rule 8011. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

#### a. C-195-0-2 - Facility-Wide Requirements

 Condition 31 on the proposed permit ensures compliance with this rule.

#### R. District Rule 8041 - Carryout and Trackout

The purpose of this rule is to limit fugitive dust emissions from carryout and trackout.

This rule applies to all sites that are subject to Rules 8021 (Construction, Demolition, Excavation, Extraction, and other Earthmoving Activities), 8031 (Bulk Materials), and 8071 (Unpaved Vehicle and Equipment Traffic Areas) where carryout or trackout has occurred or may occur.

Section 5.0 requires that an owner/operator shall sufficiently prevent or cleanup carryout and trackout as specified in sections 5.1 through 5.8. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner/operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

#### a. C-195-0-2 – Facility-Wide Requirements

Condition 32 on the proposed permit ensures compliance with this rule.

#### S. District Rule 8051 - Open Areas

The purpose of this rule is to limit fugitive dust emissions from open areas. This rule applies to any open area having 3.0 acres or more of disturbed surface area that has remained undeveloped, unoccupied, unused, or vacant for more than seven days.

Section 5.0 requires that whenever open areas are disturbed or vehicles are used in open areas, the owner/operator shall implement one or a combination of control measures indicated in Table 8051-1 to comply with the conditions of a stabilized surface at all times and to limit VDE to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

#### a. C-195-0-2 – Facility-Wide Requirements

 Condition 33 on the proposed permit ensures compliance with this rule.

#### T. District Rule 8061 - Paved and Unpaved Roads

The purpose of this rule is to limit fugitive dust emissions from paved and unpaved roads by implementing control measures and design criteria.

This rule applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.

#### a. C-195-0-2 – Facility-Wide Requirements

 Condition 34 on the proposed permit ensures compliance with this rule.

#### U. District Rule 8071 - Unpaved Vehicle/Equipment Traffic Area

The purpose of this rule is to limit fugitive dust emissions from unpaved vehicle and equipment traffic areas by implementing control measures and design criteria.

This rule applies to any unpaved vehicle/equipment traffic area of 1.0 acre or larger.

#### a. C-195-0-2 – Facility-Wide Requirements

 Condition 35 on the proposed permit ensures compliance with this rule.

### 40 CFR 60 Subpart IIII, <u>Standards of Performance for Stationary Compression</u> Ignition Internal Combustion Engines

This NSPS is intended to regulate emissions of NO<sub>x</sub>, CO, and VOC from compression ignition IC engines. Units C-195-10-2 and C-195-16-1 are compression ignition IC engines.

However, these engines commenced construction prior to all of the NSPS applicability dates, none of which is any earlier than 2005. Furthermore, neither of these engines has been modified, as defined in 40 CFR 60.14 based on an increase in emissions on a kg/hr basis, since original construction commenced. Therefore, the revised NSPS standards do not apply to these units and will not be further discussed.

# 40 CFR Part 60 Subpart KKKK, <u>Standards of Performance for Stationary</u> <u>Combustion Turbines</u>

The EPA promulgated this new NSPS that would apply to new stationary combustion turbines greater than or equal to 1 MW that commence construction, modification or reconstruction after February 18, 2005. The gas turbine permit units C-195-1-6 and C-195-3-6 were initially constructed have been modified all before February 18, 2005 and have not been modified or reconstructed since. Therefore requirements of this NSPS are not applicable.

## 40 CFR Part 63, Subpart YYYY – <u>National Emissions Standards for Hazardous Air</u> Pollutants for Stationary Combustion Turbines

This subpart establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emissions from stationary combustion turbines located at major sources of HAP emissions, and requirements to demonstrate initial and continuous compliance with the emission and operating limitations.

The facility is not a major of HAP emissions and is not subject to this subpart.

# 40 CFR Part 63, Subpart ZZZZ, <u>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</u>

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

#### a. C-195-10-2 (1608 bhp Emergency Engine, Cogeneration Facility)

Pursuant to District policy for Guidance to Address 40 CFR Part 63 Subpart ZZZZ Requirements for IC Engines, conditions 2, 4 through 8, 11 and 19 on the proposed permit will ensure compliance with the requirements of this rule.

#### b. <u>C-195-16-1 (395 bhp Emergency Engine)</u>

Pursuant to District policy for Guidance to Address 40 CFR Part 63 Subpart ZZZZ Requirements for IC Engines, conditions 3 through 8, 11 and 20 on the proposed permit will ensure compliance with the requirements of this rule.

### 40 CFR Part 64 Compliance Assurance Monitoring (CAM)

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

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

#### a. C-195-1-6: 2,600 kW Solar Centaur Gas Turbine

- 1) This unit contains emission limits for  $NO_X$ ,  $SO_X$ , CO, and VOC.
- 2) This unit does not have any add-on controls for  $NO_X$ ,  $SO_X$ , CO, or VOC emissions. Therefore, this unit is not subject to CAM.

#### b. C-195-2-10: <u>19.959 MMBtu/hr Boiler</u>

- 1) This unit contains emission limits for NOX, SOX, PM10, CO, and VOC.
- 2) This unit does not have any add-on controls for NOX, SOX, PM10, CO, or VOC emissions. Therefore, this unit is not subject to CAM.

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#### c. C-195-3-6: 2,600 kW Solar Centaur Gas Turbine

- 1) This unit contains emission limits for NOX, SOX, CO, and VOC.
- 2) This unit does not have any add-on controls for NOX, SOX, CO, or VOC emissions. Therefore, this unit is not subject to CAM.

#### d. C-195-4-2: Woodworking Operation

- 1) This unit contains an emission limit for PM of 0.1 grains/dscf.
- 2) This unit is served by a cyclone and baghouse dust collection system to control PM emissions. Therefore, this unit is not subject to CAM for NO<sub>x</sub>, SO<sub>x</sub>, CO, and VOC.
- 3) The dust collection system serving the woodworking operation will be assumed to have a 90% control efficiency and has a horsepower rating of 15 hp.

Pre-control Emissions = PM10 Concentration x minutes operated per day x exhaust flowrate x 365 day/year + (1 – CE)

Using the following formula, the air flow rate can be calculated:

$$V = \frac{33,000 \times LF \times \eta_c \times (1 - k)}{144 \times P_i \times k} \times \frac{hp}{\left[ \left( \frac{P_d}{P_i} \right)^{\frac{k-1}{k}} - 1 \right]}$$

Where,

Assumptions are:
Adiabatic Compression
Negligible Effects of Compressibility
Standard Conditions, STP = 14.7 psia, 60°F

and

 $P_i$  = Inlet Pressure (psia) = 14.7 (ambient)

 $P_d$  = Outlet Pressure (psia) = 14.844 (estimated @  $P_i$  + 4 inches  $H_2O$ )

k = Ratio of Specific Heats = 1.4 (air)

 $\eta_c$  = Adiabatic Compression Efficiency = 85% (estimated)

LF = Motor Load Factor = 75% (estimated)

hp = Horsepower rating of blower motor = 15 hp

Therefore,

V= 15,271 cfm

#### <u>Uncontrolled Emissions:</u>

Annual PE = PM10 Concentration x minutes operated per day x exhaust flowrate x 365 day/year ÷ (1 – Control Efficiency)

= 0.1 x 1440 min/day x 15,271 dscf/min x lb/7000 gr x 365 day/year + (1 - 0.9)

Annual PE = 1,146,634 lb-PM10/yr

Since 1,146,634 lb-PM<sub>10</sub>/yr > 140,000 lb-PM<sub>10</sub>/yr (Major Source threshold for PM<sub>10</sub>), this unit is subject to CAM for PM<sub>10</sub> emissions.

However, since the post control emissions are less than the Major Source threshold for PM<sub>10</sub>, as demonstrated below, the unit is not subject to continuous monitoring to satisfy CAM.

#### Controlled Emissions:

Annual PE = PM10 Concentration x minutes operated per day x exhaust flowrate x 365 day/year

= 0.1 x 1440 min/day x 15,271 dscf/min x lb/7000 gr x 365 day/year

Annual PE = 114,663 lb-PM10/yr

Therefore, the following options are available to comply with CAM:

- Perform and record a daily visible emissions reading and the installation of a pressure gauge or
- 2) Modify pre-control emissions rate to to exceed the the Major Source threshold of 70 tons/yr.

The applicant has stated that they intend to submit an Authority to Construct (ATC) application to modify the permit and implement the ATC within six months of the renewed Title V permit being issued to comply with CAM. Therefore, the following condition will be included on the permit:

 Within six months of the renewed Title V permit being issued, permittee shall apply for an Authority to Construct (ATC) and fully implement one of the following: 1) monitor daily visible emissions and install a pressure gauge or 2) modify pre-control emissions rate to less than 70 tons/yr. [40 CFR 64]

#### e. C-195-6-2: Woodworking Operation

- 1) This unit contains an emission limit for PM of 0.1 grains/dscf.
- 2) This unit is served by a cyclone and baghouse dust collection system to control PM emissions. Therefore, this unit is not subject to CAM for  $NO_X$ ,  $SO_X$ , CO, and VOC.
- 3) The dust collection system serving the woodworking operation will be assumed to have a 90% control efficiency and has a horsepower rating of 20 hp.

Pre-control Emissions = PM10 Concentration x minutes operated per day x exhaust flowrate x 365 day/year + (1 -

Using the following formula, the air flow rate can be calculated:

$$V = \frac{33,000 \times LF \times \eta_c \times (1 - k)}{144 \times P_i \times k} \times \frac{hp}{\left[ \left( \frac{P_d}{P_i} \right)^{\frac{k-1}{k}} - 1 \right]}$$

Where.

Assumptions are: Adiabatic Compression Negligible Effects of Compressibility Standard Conditions, STP = 14.7 psia, 60°F

and

 $P_i$  = Inlet Pressure (psia) = 14.7 (ambient)  $P_d$  = Outlet Pressure (psia) = 14.844 (estimated @  $P_i$  + 4 inches  $H_2O$ ) k = Ratio of Specific Heats = 1.4 (air)

 $\eta_c$  = Adiabatic Compression Efficiency = 85% (estimated)

LF = Motor Load Factor = 75% (estimated)

hp = Horsepower rating of blower motor = 15 hp

Therefore,

V= 20,362 cfm

#### **Emissions:**

Annual PE = PM10 Concentration x minutes operated per day x exhaust flowrate x 365 day/year

= 0.1 x 1440 min/day x 20,362 dscf/min x lb/7000 gr x 365 day/year ÷ (1 – 0.9)

Annual PE = 1,528,895 lb-PM10/yr

Since 1,528,895 lb-PM<sub>10</sub>/yr > 140,000 lb-PM<sub>10</sub>/yr (Major Source threshold for PM<sub>10</sub>), this unit is subject to CAM for PM<sub>10</sub> emissions.

The following options are available to comply with CAM:

- 1) Install a bag leak detection system or continuous PM10 emission monitor,
- 2) Modify post-control PM10 emissions rate to not exceed the Major Source threshold of 70 tons/yr, perform and record a daily visible emissions reading and the installation of a pressure gauge or
- 3) Modify pre-control emissions rate to to exceed the the Major Source threshold of 70 tons/yr.

The applicant has stated that they intend to submit an Authority to Construct (ATC) application to modify the permit and implement the ATC within six months of the renewed Title V permit being issued to comply with CAM. Therefore, the following condition will be included on the permit:

Within six months of the renewed Title V permit being issued, permittee shall apply for an Authority to Construct (ATC) and fully implement one of the following: 1) install on the baghouse an air leak detection system or continuous PM10 emission monitor or 2) modify post-control PM10 emissions rate to less than 70 tons/yr, monitor daily visible emissions and install a pressure gauge or 3) modify pre-control emissions rate to less than 70 tons/yr. [40 CFR 64]

#### f. C-195-8-2: Woodworking Operation

- 1) This unit contains an emission limit for PM10.
- 2) This unit is served by a cyclone and baghouse dust collection system to control PM<sub>10</sub> emissions. Therefore, this unit is not subject to CAM for NO<sub>X</sub>, SO<sub>X</sub>, CO, and VOC.

3) The dust collection system will be assumed to have a 90% control efficiency and the unit is limited to 20.0 lb-PM<sub>10</sub>/day per permit condition.

Pre-control Daily Emissions = Daily emissions + (1 - CE)= 20.0 lb-PM<sub>10</sub>/day ÷ (1 - 0.90)= 200 lb-PM<sub>10</sub>/day

Pre-control Annual Emissions = Daily emissions x 365 day/yr = 200 lb-PM<sub>10</sub>/day x 365 day/yr = **73,000 lb-PM**<sub>10</sub>/yr

Since 73,000 lb-PM<sub>10</sub>/yr < 140,000 lb-PM<sub>10</sub>/yr (Major Source threshold for PM<sub>10</sub>), this unit is not subject to CAM for PM<sub>10</sub> emissions and CAM conditions will not be added to the permit.

# g. C-195-9-4: <u>Automotive, Metal Parts/Products and Wood Products Paint Spraying Operation</u>

- 1) This unit contains an emission limit for VOC.
- 2) This unit does not have any add-on controls for  $NO_X$ ,  $SO_X$ ,  $PM_{10}$ , CO, or VOC emissions. Therefore, this unit is not subject to CAM.

### h. C-195-10-2: 1608 bhp Emergency Engine, Cogeneration Facility

- 1) This unit contains emission limits for NO<sub>X</sub>, SO<sub>X</sub>, PM<sub>10</sub>, CO, and VOC.
- 2) This unit does not have any add-on controls for  $NO_X$ ,  $SO_X$ ,  $PM_{10}$ , CO, or VOC emissions. Therefore, this unit is not subject to CAM.

#### i. C-195-12-8: 25,1 MMBtu/hr Boiler

- 1) This unit contains emission limits for  $NO_X$ ,  $SO_X$ ,  $PM_{10}$ , CO, and VOC.
- 2) This unit does not have any add-on controls for  $NO_X$ ,  $SO_X$ ,  $PM_{10}$ , CO, or VOC emissions. Therefore, this unit is not subject to CAM.

### j. C-195-13-8: 25,1 MMBtu/hr Boiler

- 1) This unit contains emission limits for NOX, SOX, PM10, CO, and VOC.
- 2) This unit does not have any add-on controls for NOX, SOX, PM10, CO, or VOC emissions. Therefore, this unit is not subject to CAM.

#### k. C-195-16-1: 395 bhp Emergency Engine

- 1) This unit contains emission limits for NO<sub>X</sub>, SO<sub>X</sub>, PM<sub>10</sub>, CO, and VOC.
- 2) This unit does not have any add-on controls for NO<sub>X</sub>, SO<sub>X</sub>, PM<sub>10</sub>, CO, or VOC emissions. Therefore, this unit is not subject to CAM.

#### I. C-195-17-2: Gasoline Dispensing Operation

1) This unit does not contain emission limits for any criteria pollutant. Therefore, this unit is not subject to CAM.

#### IX. PERMIT SHIELD

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

#### A. Requirements Addressed by Model General Permit Templates

The applicant is not requesting to use any model general permit templates for this Title V renewal project.

#### B. Requirements not Addressed by Model General Permit Templates

Calif State Prison – Avenal is not requesting any new permit shields within this Title V renewal project. In addition, Calif State Prison – Avenal is not requesting any changes to the existing permit shields already included in their Title V operating permits. Therefore, all of the existing permit shields will be maintained on the revised permits for this renewal project.

#### C. Obsolete Permit Shields From Existing Permit Requirements

There are no obsolete permit shield conditions to be removed from the permits.

#### X. PERMIT CONDITIONS

See Attachment A - Draft Renewed Title V Operating Permit.

#### XI. **ATTACHMENTS**

- A. Draft Renewed Title V Operating Permit
- Previous Title V Operating Permit
  Detailed Facility List В.
- C.

# ATTACHMENT A

Draft Renewed Title V Operating Permit

# San Joaquin Valley Air Pollution Control District

**FACILITY**: C-195-0-2

EXPIRATION DATE: 10/3/1/2009

### **FACILITY-WIDE REQUIREMENTS**

- 1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- 3. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- 4. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
- 5. {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
- 6. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
- 7. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
- 8. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District Rule 2040] Federally Enforceable Through Title V Permit
- 9. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-0-2: Sep 22011 3:49PM - GARCIAJ

- 10. {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 11. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 12. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
- 13. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 14. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 15. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 16. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 17. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 18. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 19. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 20. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 21. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 22. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule-25%, 9.13.2.4] Federally Enforceable Through Title V Permit

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

Facility Name: CALIF STATE PRISON - AVENAL ocation: 1 KINGS WAY, AVENAL, CA 93204 Location:

- 23. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 24. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
- 25. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
- 26. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
- 27. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 28. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 29. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
- 30. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
- 31. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
- 32. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
- 33. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
- 34. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-0-2: Sep 2 2011 349PM - GARCIAJ

- 35. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
- 36. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
- 37. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 38. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 39. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 40. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin June 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-0-2: Sep 2:2011 3:49PM - GARCIAJ

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-195-1-6

EXPIRATION DATE: 10/31/2009

#### **EQUIPMENT DESCRIPTION:**

2,600 KW SOLAR CENTAUR MODEL GSC-4500 GAS TURBINE, AVENAL #1, SN DCG0211, WITH WITH WITH BENERGY RECOVERY INC. MODEL 52.5-1816 THERMAL RECOVERY, SN W2272

### PERMIT UNIT REQUIREMENTS

- 1. In order to ensure compliance with the requirements of District Rule 4703, Stationary Gas Turbines, Authorities to Construct (ATCs) C-195-1-8 and C-195-3-8 shall be fully implemented by September 30, 2012. [District Rules 2520 and 4703] Federally Enforceable Through Title V Permit
- This turbine shall not operate for more than 8,050 hours per year. [District NSR Rule] Federally Enforceable Through
  Title V Permit
- 3. This turbine shall not operate when the 21 MMBtu/hr backup boiler (C-195-2) and the other turbine (C-195-3) are both operating except for cold starts of less than 1 hour, a shutdown of less than 2 hours, and boiler testing totaling less than 24 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. This turbine shall only be fired on PUC-regulated natural gas or on No. 2 fuel oil with a maximum sulfur content of 0.12% by weight as a backup fuel. [40 CFR 60.333, District NSR Rule, District Rule 4201, and District Rule 4801] Federally Enforceable Through Title V Permit
- 5. Natural gas fuel consumption for the turbine shall not exceed 879,960 scf per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. No. 2 fuel oil with a maximum sulfur content of 0.12% by weight may be used for up to 100 hours per year if the natural gas supply is interrupted. No. 2 fuel oil consumption shall not exceed 8,540 gallons per day. [District NSR Rule, District Rule 4801, and 40 CFR 60.333(b)] Federally Enforceable Through Title V Permit
- 7. The combined total operating hours of two turbines (C-195-1 and C-195-3) when operating concurrently with two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) shall not exceed 5,203 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. Daily hours of concurrent operation with the two 25.1 boilers (C-195-12 and C-195-13) shall be maintained. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 9. When firing on natural gas, the exhaust NOx concentrations shall not exceed 35.0 ppmvd @15% O2 (averaged over a 3-hour period) or 4.27 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule, District Rule 4703, 5.1.2, and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
- 10. When firing on No. 2 fuel oil, the exhaust NOx concentration shall not exceed 54.6 ppmvd @15% O2 (averaged over a 3-hour period) or 8.81 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule, District Rule 4703, 5.1.2, and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
- 11. When firing on natural gas, the exhaust CO concentration shall not exceed 130.0 ppmvd @ 15% O2 or 10.00 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule and District Rule 4703, 5.2] 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.

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204

- 12. When firing on No. 2 fuel oil, the exhaust CO concentration shall not exceed 172.3 ppmvd @ 15% O2 or 16.92 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule and District Rule 4703, 5.2] Federally Enforceable Through Title V Permit
- 13. Daily emissions shall not exceed any of the following: 122.6 lb-SOx/day, 36.0 lb-PM10/day, or 120.0 lb-VOC(NMHC)/day. [District NSR Rule and District Rule 4301] Federally Enforceable Through Title V Permit
- 14. Permittee shall perform a source test to measure NOx and CO emissions (ppmvd @ 15% O2 and lb/hr) at least once every twelve months. [District Rules 1081 and 4703, 6.3.1] Federally Enforceable Through Title V Permit
- 15. 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
- 16. 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
- 17. The following test methods shall be used: NOx: EPA Methods 7E or 20 or CARB Method 100; CO: EPA Methods 10 or 10B or CARB Method 100; and Oxygen content of the exhaust gas: EPA Methods 3, 3A, or 20. [40 CFR 60.8(a) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
- 18. The following test method shall be used for fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rule 4102 and 40 CFR 60.335(b)(10)(ii)] Federally Enforceable Through Title V Permit
- 19. The following test methods shall be used to determine the sulfur content of the liquid fuel: ASTM D129, D2622, D4294, D1266, D5453 or D1552. [District Rule 4801 and 40 CFR 60.335(b)(10)(i)] Federally Enforceable Through Title V Permit
- 20. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
- 21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer 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 Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit
- 22. If the NOx and/or CO concentrations, as measured by the permittee with a portable analyzer, exceed the permitted emission limits, the permittee shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than 8 hours after detection. If the permittee's portable analyzer readings continue to exceed the permitted emissions limits after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days to demonstrate compliance with the permitted emissions limits. In lieu of conducting a source test, the permittee may stipulate that a violation has occurred, subject to enforcement action. The permittee must 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 performing the notification and testing required by this condition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 23. All NOx, CO, and O2 emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 24. When this unit is modified to comply with the Tier 3 emission limits in Rule 4703, the monitoring program shall be revised as appropriate for the NOx controls applied to the Tier 3-compliant unit. [District Rule 4703] 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.
- AVENAL

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-1-8: Mar 5 2012 3.01PM - GARCIAJ

- 25. Permittee shall record fuel consumption, fuel type, and sulfur content of fuel. Records shall be retained for at least five years and shall be made available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 26. The owner or operator shall maintain the gas quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 10 grains/100 scf or less. [District Rule 2520, 9.3.2, District Rule 4301, and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
- 27. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate, not to exceed one hour. [District Rule 4703, 3.19] Federally Enforceable Through Title V Permit
- 28. Thermal Stabilization Period shall be defined as the start up or shut down time during which the exhaust gas is not within the normal operating temperature range, not to exceed two hours. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
- 29. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 30. Particulate matter emissions shall not exceed 0.1 grains/scf at 12% CO2. [District Rule 4301] Federally Enforceable Through Title V Permit
- 31. The owner or operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods or thermal stabilizing periods, total hours of operation, and the type and quantity of fuel consumed. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
- 32. The owner or operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-1-8: Mar 5 2012 3:01PM - GARCIAJ

**PERMIT UNIT:** C-195-2-10

EXPIRATION DATE: 10/31/2009

**EQUIPMENT DESCRIPTION:** 

19.959 MMBTU/HR MOHAWK NATURAL GAS-FIRED BOILER WITH A POWER FLAME MODEL #NVC10-G-30 LOW NOX BURNER

### PERMIT UNIT REQUIREMENTS

- 1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 3. 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
- 4. On and after July 1, 2012, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit
- 5. This boiler shall not be fired when both gas turbines (permit units C-195-1 and C-195-3) are operating except for cold start-up of less than 1 hour, a shutdown of less than 3 hours, or during boiler testing not to exceed a total of 24 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. This boiler shall not operate when both 25.1 MMBtu/hr boilers (permit units C-195-12 and C-195-13) are operating. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. The maximum annual heat input of the unit shall not exceed 555.6 MMBtu based on a rolling 12 consecutive month period. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
- Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 9 ppmv NOx @ 3% O2 or 0.011 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 100 ppmv CO @ 3% O2 or 0.074 lb-CO/MMBtu, or 10 ppmv VOC @ 3% O2 or 0.004 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
- 11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 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, 4306 and 4320] Federally Enforceable Through Title V Permit

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204

- 12. 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
- 13. 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
- 14. 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
- 15. 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
- 16. 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] Federally Enforceable Through Title V Permit
- 17. 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
- 18. Source testing to measure NOx and CO emissions from this unit while fired on natural gas 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
- 19. 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
- 20. 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
- 21. Stack gas oxygen (O2) 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
- 22. 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

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-2-10: Aug 15 2011 2:43PM - GARCIAJ

- 23. 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
- 24. Records of monthly and annual heat input of the unit shall be maintained. [District Rule 2201] 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 Rules 1070, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-2-10: Aug 15 2011 2.43PM - GARCIAJ

**PERMIT UNIT:** C-195-3-6

### **EQUIPMENT DESCRIPTION:**

2,600 KW SOLAR CENTAUR MODEL CSC-4500 GAS TURBINE, AVENAL #2, SN CG86N27, WITH RECOVERY INC. MODEL 52.5-1416 THERMAL RECOVERY UNIT, SNW2274

### PERMIT UNIT REQUIREMENTS

- In order to ensure compliance with the requirements of District Rule 4703, Stationary Gas Turbines, Authorities to Construct (ATCs) C-195-1-8 and C-195-3-8 shall be fully implemented by September 30, 2012. [District Rules 2520 and 4703] Federally Enforceable Through Title V Permit
- This turbine shall not operate for more than 8,050 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- This turbine shall not operate when the 21 MMBtu/hr backup boiler (C-195-2) and the other turbine (C-195-1) are both operating except for cold starts of less than 1 hour, a shutdown of less than 2 hours, and boiler testing totaling less than 24 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- This turbine shall only be fired on PUC-regulated natural gas or on No. 2 fuel oil with a maximum sulfur content of 0.12% by weight as a backup fuel. [40 CFR 60.333, District NSR Rule, District Rule 4201, and District Rule 4801] Federally Enforceable Through Title V Permit
- Natural gas fuel consumption for the turbine shall not exceed 879,960 scf per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- No. 2 fuel oil with a maximum sulfur content of 0.12% by weight may be used for up to 100 hours per year if the natural gas supply is interrupted. No. 2 fuel oil consumption shall not exceed 8,540 gallons per day. [District NSR Rule, District Rule 4801, and 40 CFR 60.333(b)] Federally Enforceable Through Title V Permit
- The combined total operating hours of two turbines (C-195-1 and C-195-3) when operating concurrently with two 25.1 7. MMBtu/hr boilers (C-195-12 and C-195-13) shall not exceed 5,203 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- Daily hours of concurrent operation with the two 25.1 boilers (C-195-12 and C-195-13) shall be maintained. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
- When firing on natural gas, the exhaust NOx concentrations shall not exceed 35.0 ppmvd @15% O2 (averaged over a 3-hour period) or 4.27 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule, District Rule 4703, 5.1.2, and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
- 10. When firing on No. 2 fuel oil, the exhaust NOx concentration shall not exceed 54.6 ppmvd @15% O2 (averaged over a 3-hour period) or 8.81 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule, District Rule 4703, 5.1.2, and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
- 11. When firing on natural gas, the exhaust CO concentration shall not exceed 130.0 ppmvd @ 15% O2 or 10.00 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule and District Rule 4703, 5.2] Federally Enforceable Through Title V Permit

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204

- 12. When firing on No. 2 fuel oil, the exhaust CO concentration shall not exceed 172.3 ppmvd @ 15% O2 or 16.92 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule and District Rule 4703, 5.2] Federally Enforceable Through Title V Permit
- 13. Daily emissions shall not exceed any of the following: 122.6 lb-SOx/day, 36.0 lb-PM10/day, or 120.0 lb-VOC(NMHC)/day. [District NSR Rule and District Rule 4301] Federally Enforceable Through Title V Permit
- 14. Permittee shall perform a source test to measure NOx and CO emissions (ppmvd @ 15% O2 and lb/hr) at least once every twelve months. [District Rules 1081 and 4703, 6.3.1] Federally Enforceable Through Title V Permit
- 15. 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
- 16. 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
- 17. The following test methods shall be used: NOx: EPA Methods 7E or 20 or CARB Method 100; CO: EPA Methods 10 or 10B or CARB Method 100; and Oxygen content of the exhaust gas: EPA Methods 3, 3A, or 20. [40 CFR 60.8(a) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
- 18. The following test method shall be used for fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rule 4102 and 40 CFR 60.335(b)(10)(ii)] Federally Enforceable Through Title V Permit
- 19. The following test methods shall be used to determine the sulfur content of the liquid fuel: ASTM D129, D2622, D4294, D1266, D5453 or D1552. [District Rule 4801 and 40 CFR 60.335(b)(10)(i)] Federally Enforceable Through Title V Permit
- 20. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
- 21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer 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 Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit
- 22. If the NOx and/or CO concentrations, as measured by the permittee with a portable analyzer, exceed the permitted emission limits, the permittee shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than 8 hours after detection. If the permittee's portable analyzer readings continue to exceed the permitted emissions limits after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days to demonstrate compliance with the permitted emissions limits. In lieu of conducting a source test, the permittee may stipulate that a violation has occurred, subject to enforcement action. The permittee must 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 performing the notification and testing required by this condition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 23. All NOx, CO, and O2 emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
- 24. When this unit is modified to comply with the Tier 3 emission limits in Rule 4703, the monitoring program shall be revised as appropriate for the NOx controls applied to the Tier 3-compliant unit. [District Rule 4703]

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

Facility Name: CALIF STATE PRISON - AVENAL 1 KINGS WAY, AVENAL, CA 93204 Location:

C-105-3-6 : Mar 5 2012 3:01PM - GARCIAJ

- 25. Permittee shall record fuel consumption, fuel type, and sulfur content of fuel. Records shall be retained for at least five years and shall be made available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 26. The owner or operator shall maintain the gas quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 10 grains/100 scf or less. [District Rule 2520, 9.3.2, District Rule 4301, and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
- 27. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate, not to exceed one hour. [District Rule 4703, 3.19] Federally Enforceable Through Title V Permit
- 28. Thermal Stabilization Period shall be defined as the start up or shut down time during which the exhaust gas is not within the normal operating temperature range, not to exceed two hours. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
- 29. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 30. Particulate matter emissions shall not exceed 0.1 grains/scf at 12% CO2. [District Rule 4301] Federally Enforceable Through Title V Permit
- 31. The owner or operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods or thermal stabilizing periods, total hours of operation, and the type and quantity of fuel consumed. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
- 32. The owner or operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-3-6: Mar 5 2012 3.01PM - GARCIAJ

**PERMIT UNIT:** C-195-4-2

EXPIRATION DATE 70/31/2009

**EQUIPMENT DESCRIPTION:** 

WOODWORKING OPERATION SERVED BY TORIT MODEL 30 CYCLONE DUST COLLECTOR, SN 224053, WITH TORIT CABINET-TYPE BAGHOUSE

## PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize
  emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Material removed from dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 4. Within six months of the renewed Title V permit being issued, permittee shall apply for an Authority to Construct (ATC) and fully implement one of the following: 1) monitor daily visible emissions and install a pressure gauge or 2) modify pre-control emissions rate to less than 70 tons/yr. [40 CFR 64] Federally Enforceable Through Title V Permit

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Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-1954-2: Mar 20 2012 8:51AM - GARCIAJ

**PERMIT UNIT:** C-195-6-2

EXPIRATION DATE: 10/31/2009

#### **EQUIPMENT DESCRIPTION:**

WOODWORKING OPERATION SERVED BY TORIT MODEL 30 FM CYCLONE DUST COLLECTOR SERIES 30-15 WITH BAGHOUSE

### PERMIT UNIT REQUIREMENTS

- 1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Material removed from dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 4. Within six months of the renewed Title V permit being issued, permittee shall apply for an Authority to Construct (ATC) and fully implement one of the following: 1) install on the baghouse an air leak detection system or continuous PM10 emission monitor or 2) modify post-control PM10 emissions rate to less than 70 tons/yr, monitor daily visible emissions and install a pressure gauge or 3) modify pre-control emissions rate to less than 70 tons/yr. [40 CFR 64] Federally Enforceable Through Title V Permit

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Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-185-6-2; Mar 16 2012 1:52PM - GARCIAJ

**PERMIT UNIT:** C-195-8-2

#### **EQUIPMENT DESCRIPTION:**

WOODWORKING OPERATION SERVED BY DONALDSON "TORIT" DUST COLLECTOR MODE 24" CYCLONE AND FABRIC FILTER BAGHOUSE

### PERMIT UNIT REQUIREMENTS

- Material removed from dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 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
- PM10 emissions shall not exceed 20 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

These terms and conditions adility-wide Permit to Operate.

Facility Name: CALIF STATE PRISON - AVENAL ocation: 1 KINGS WAY, AVENAL, CA 93204

**PERMIT UNIT:** C-195-9-4

EXPIRATION DAILE 140/31/2009

#### **EQUIPMENT DESCRIPTION:**

AUTOMOTIVE, METAL PARTS/PRODUCTS, AND WOOD PRODUCTS PAINT SPRAYING OPERATION WITH HVLP SPRAY GUN, RELY-ON PAINT SPRAY BOOTH, I.D. #IF121010, WITH DRY AIR FILTERS AND ENCLOSED GUN CLEANER, AND 0.4 MMBTU/HR DRYING OVEN

### PERMIT UNIT REQUIREMENTS

- 1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule and 40 CFR Part 64] 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. No coatings, solvents, or additives containing chromium compounds shall be used. [CH&SC 41700] Federally Enforceable Through Title V Permit
- 4. VOC emissions from all coating operations shall not exceed 40 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. VOC emissions from all metal parts and products coating operations shall not exceed 14.0 pounds per day for the entire facility. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. Wood products coating application operations shall use a total of less than 20 gallons of coating per year. [District NSR Rule and District Rule 4606] Federally Enforceable Through Title V Permit
- 7. All painting, including application of primer, shall be conducted inside the booth with filters in place, fan(s) operating, and doors closed. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. During metal parts and products coating, only HVLP, electrostatic, electrodeposition, flow, roll, dip, brush or continuous coating application equipment shall be used, and the application equipment shall be operated in accordance with the manufacturer's recommendations. [District Rule 4603] Federally Enforceable Through Title V Permit
- 9. During wood product coating, only HVLP, electrostatic, brush, dip, flow, or roll coating application equipment shall be used, and the application equipment shall be operated in accordance with the manufacturer's recommendations.

  [District Rule 4606] Federally Enforceable Through Title V Permit
- 10. During motor vehicle and mobile equipment coating, only HVLP, electrostatic, brush, dip, or roll coating application equipment, or other application equipment approved by the District in writing, shall be used. All application equipment shall be operated in accordance with the manufacturer's recommendations. [District Rule 4612] Federally Enforceable Through Title V Permit

PERMIT UNIT REDUREMENTS CONTINUE ON NEXT PAGE
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Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-9-4: Aug 19 2011 11:51AM -- GARCIAJ

- 11. If an HVLP spray gun is used, the operator must demonstrate that the spray gun operates between 0.1 and 10 pounds per square inch, gauge, (psig) air atomizing pressure, measured dynamically at the center of the air cap and at the air horns. For a gun permanently labeled HVLP by the manufacturer, a satisfactory demonstration shall either be in the form of manufacturer's published technical information or by a demonstration of the operation of the gun using an air pressure tip gauge from the manufacturer of the gun. For a gun not permanently labeled HVLP by the manufacturer, a satisfactory demonstration shall be based on manufacturer's published technical material and by a demonstration of the operation of the gun using an air pressure tip gauge from the manufacturer of the gun. [District Rules 4603, 4606 and 4612] Federally Enforceable Through Title V Permit
- 12. VOC content of any coatings as applied, excluding water and exempt compounds, used for any metal parts or product shall not exceed any of the following limits, except as allowed elsewhere in this permit: baked coating 275 g/l (2.3 lb/gal), air-dried coating: 340 g/l (2.8 lb/gal), air-dried dip coating of steel joists with coating viscosity, as applied, of more than 45.6 centistokes at 78 degrees F or an average dry-film thickness of greater than 2.0 millimeters: 340 g/l (2.8 lb/gal), air-dried dip coating of steel joists with coating viscosity, as applied, of less than or equal to 45.6 centistokes at 78 degrees F or an average dry-film thickness of less than or equal to 2.0 millimeters: 400 g/l (3.32 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit
- 13. VOC content of air-dried specialty coatings as applied, excluding water and exempt compounds, used for metal parts or product shall not exceed any of the following limits: camouflage 420 g/l (3.5 lb/gal), extreme performance: 420 g/l (3.5 lb/gal), heat resistant: 420 g/l (3.5 lb/gal), high gloss: 420 g/l (3.5 lb/gal), high performance architectural: 420 g/l (3.5 lb/gal), high temperature: 420 g/l (3.5 lb/gal), metallic coating: 420 g/l (3.5 lb/gal), pretreatment coating: 420 g/l (3.5 lb/gal), touch up and repair coating: 420 g/l (3.5 lb/gal), silicone release: 420 g/l (3.5 lb/gal), solar absorbent: 420 g/l (3.5 lb/gal), and solid film lubricant: 880 g/l (7.3 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit
- 14. VOC content of air-dried specialty coatings as applied, excluding water and exempt compounds used for large appliance parts or products coating operations, or metal furniture coating operations at a stationary source with VOC emissions greater than three (3) tons of VOC per 12 month rolling period, before consideration of controls shall not exceed any of the following limits: general, one component: 275 g/l (2.3 lb/gal), general, multi-component: 340 g/l (2.8 lb/gal), extreme high gloss: 340 g/l (2.8 lb/gal), extreme performance: 420 g/l (3.5 lb/gal), heat resistant: 420 g/l (3.5 lb/gal), metallic: 420 g/l (3.5 lb/gal), pretreatment coating: 420 g/l (3.5 lb/gal), and solar absorbent: 420 g/l (3.5 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit
- 15. VOC content of plastic parts and products coating operations as applied, excluding water and at a stationary source with all VOC emissions from metal parts and products, plastic parts and products, automotive/transportation and business machine plastic parts and products, and pleasure craft coating operation, including related cleaning activities greater than 2.7 tons of VOC per 12-month rolling period before consideration of controls shall not exceed any of the following limits: general one-component: 280 g/l (2.3 lb/gal), general multi-component: 420 g/l (3.5 lb/gal), electric dissipating coatings and shock-free coatings: 800 g/l (6.7 lb/gal), extreme performance for 2-pack coating: 420 g/l (3.5 lb/gal), military specification for 1 pack coating: 340 g/l (2.8 lb/gal), military specification for 2-pack coating: 420 g/l (3.5 lb/gal), mold-seal: 760 g/l (6.3 lb/gal), multi-colored coatings 680 g/l (5.7 lb/gal), optical coatings: 800 g/l (6.7 lb/gal), and vacuum-metalizing: 800 g/l (6.7 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit
- 16. VOC content of automotive/transportation plastic parts and products coating operations as applied, excluding water and at a stationary source with all VOC emissions from metal parts and products, plastic parts and products, automotive/transportation and business machine plastic parts and products, and pleasure craft coating operation, including related cleaning activities greater than 2.7 tons of VOC per 12-month rolling period before consideration of controls shall not exceed any of the following limits for high baked coatings interior and exterior: flexible primer: 540 g/l (4.5 lb/gal), non-flexible primer: 420 g/l (3.5 lb/gal), basecoat: 520 g/l (4.3 lb/gal), clearcoat: 480 g/l (4.0 lb/gal), and non-basecoat/clearcoat: 520 g/l (4.3 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit

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Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-9-4: Aug 19 2011 11:51AM - GARCAJ

- 17. VOC content of automotive/transportation plastic parts and products coating operations as applied, excluding water and at a stationary source with all VOC emissions from metal parts and products, plastic parts and products, automotive/transportation and business machine plastic parts and products, and pleasure craft coating operation, including related cleaning activities greater than 2.7 tons of VOC per 12-month rolling period before consideration of controls shall not exceed any of the following limits for low bake/air-dried coatings exterior parts: primers: 580 g/l (4.8 lb/gal), basecoat: 600 g/l (5.0 lb/gal), clearcoat: 540 g/l (4.5 lb/gal), and non-basecoat/clearcoat: 600 g/l (5.0 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit
- 18. VOC content of automotive/transportation plastic parts and products coating operations as applied, excluding water and at a stationary source with all VOC emissions from metal parts and products, plastic parts and products, automotive/transportation and business machine plastic parts and products, and pleasure craft coating operation, including related cleaning activities greater than 2.7 tons of VOC per 12-month rolling period before consideration of controls shall not exceed any of the following limits for low bake/air-dried coatings interior parts: 600 g/l (5.0 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit
- 19. VOC content of automotive/transportation plastic parts and products coating operations as applied, excluding water and at a stationary source with all VOC emissions from metal parts and products, plastic parts and products, automotive/transportation and business machine plastic parts and products, and pleasure craft coating operation, including related cleaning activities greater than 2.7 tons of VOC per 12-month rolling period before consideration of controls shall not exceed any of the following limits for touch-up and repair coatings: 620 g/l (5.2 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit
- 20. VOC content of business machine plastic parts and product coatings as applied, excluding water and at a stationary source with all VOC emissions from metal parts and products, plastic parts and products, automotive/transportation and business machine plastic parts and products, and pleasure craft coating operation, including related cleaning activities greater than 2.7 tons of VOC per 12-month rolling period before consideration of controls shall not exceed any of the following limits: Primer: 350 g/l (2.9 lb/gal), topcoat: 350 g/l (2.9 lb/gal), texture coat: 350 g/l (2.9 lb/gal), fog coat: 260 g/l (2.2 lb/gal), and touch-up and repair: 350 g/l (2.9 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit
- 21. VOC content of pleasure craft coatings as applied, excluding water and at a stationary source with all VOC emissions from metal parts and products, plastic parts and products, automotive/transportation and business machine plastic parts and products, and pleasure craft coating operation, including related cleaning activities greater than 2.7 tons of VOC per 12-month rolling period before consideration of controls shall not exceed any of the following limits: extreme high gloss topcoat: 490 g/l (4.1 lb/gal), high gloss topcoat: 420 g/l (3.5 lb/gal), pretreatment wash primer: 780 g/l (6.5 lb/gal), finish primer surfacer: 420 g/l (3.5 lb/gal), high build primer surfacer: 340 g/l (2.8 lb/gal), aluminum substrate antifoulant coating 560 g/l (4.7 lb/gal), other substrate antifoulant coating: 330 g/l (2.8 lb/gal), and all other pleasure craft surface coatings for metal or plastic: 420 g/l (3.5 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit
- 22. An operator of large appliance parts and products, and metal furniture coating operations shall: store all VOC-containing coatings, thinners, cleaning materials, and waste materials in closed non-absorbent and non-leaking containers, keeping the containers closed except when specifically in use; close mixing vessels that contain VOC coatings and other materials, except when specifically in use; minimize spill of any VOC-containing materials and clean up spills immediately; and convey VOC-containing materials in closed containers or pipes. [District Rule 4603] Federally Enforceable Through Title V Permit
- 23. An operator of metal parts products coating operations, plastic parts and products coating operations, automotive/transportation and business machine plastic parts and products coating operations and pleasure craft coating operations shall: store all VOC-containing coatings, thinners, cleaning materials, and waste materials in closed non-absorbent and non-leaking containers, keeping the containers closed except when specifically in use; close mixing vessels that contain VOC coatings and other materials, except when specifically in use; minimize spill of any VOC-containing materials and clean up spills immediately; and convey VOC-containing materials in closed containers or pipes. [District Rule 4603] Federally Enforceable Through Title V Permit

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- 24. VOC content of coatings as applied, excluding water and exempt compounds, used for wood product, shall not exceed any of the following limits: clear topcoat 275 g/l (2.3 lb/gallon), filler 275 g/l (2.3 lb/gallon), high-solids stains 240 g/l (2.0 lb/gallon), ink 500 g/l (4.2 lb/gallon), mold-seal coating 750 g/l (6.3 lb/gallon), multi-colored coating 275 g/l (2.3 lb/gallon), pigmented coating 275 g/l (2.3 lb/gallon), sanding sealer 275 g/l (2.3 lb/gallon). [District Rule 4606] Federally Enforceable Through Title V Permit
- 25. VOC content of coatings as applied, excluding water and exempt compounds, used for wood product, shall not exceed any of the following limits: low-solids stain 120 g/l (1.0 lb/gallon), stripper 350 g/l (2.9 lb/gallon). [District Rule 4606]
- 26. VOC content of strippable booth coating shall not exceed 450 g/l (3.8 lb/gallon) as applied, excluding water and exempt compounds. [District Rule 4606] Federally Enforceable Through Title V Permit
- 27. All fresh or spent solvents, waste solvent cleaning materials such as cloth, paper, etc., coatings, adhesives, catalysts, and thinners shall be stored in closed, non-absorbent and non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rules 4603, 4606 and 4612] Federally Enforceable Through Title V Permit
- 28. For solvent cleaning operations other than for bug and tar removal, the permittee shall not use solvents that have VOC content greater than 25 g/l (0.21 lb/gal) of cleaning material. [District Rules 4603, 4606 and 4612] Federally Enforceable Through Title V Permit
- 29. For bug and tar removal, the permittee shall not use any material other than bug and tar remover regulated under the Consumer Products Regulation (California Code of Regulations Section 94507 et seq.). [District Rule 4612] Federally Enforceable Through Title V Permit
- 30. The VOC Regulatory content of coatings, as applied shall not exceed any of the following limits: adhesion promoter 540 g/l (4.5 lb/gal), clear coating 250 g/l (2.1 lb/gal), color coating 420 g/l (3.5 lb/gal), multi-color coating 680 g/l (5.7 lb/gal), pretreatment coating 660 g/l (5.5 lb/gal), primer 250 g/l (2.1 lb/gal), primer sealer 250 g/l (2.1 lb/gal), single-stage coating 340 g/l (2.8 lb/gal), temporary protective coating 60 g/l (0.5 lb/gal), underbody coating 430 g/l (3.6 lb/gal), uniform finish coating 540 g/l (4.5 lb/gal), and any other coating type 250 g/l (2.1 lb/gal). The VOC Regulatory content for coatings shall be defined as the VOC in grams per liter of coating (or pounds per gallon of coating), excluding water and exempt compounds. [District Rule 4612] Federally Enforceable Through Title V Permit
- 31. For metal parts and products coatings, the permittee shall maintain a current list of coatings and solvents in use which contains all of the coating data necessary to evaluate compliance, including the following information: mix ratio of components used, VOC content and specific chemical constituents of coatings as applied, and VOC content and specific chemical constituents of solvents used for surface preparation and cleanup. [District Rule 4603]
- 32. For motor vehicle and mobile equipment coatings, the permittee shall maintain and have available at all times the following: a current list of all coatings used that includes the material name and manufacturer, application method, coating type and mix ratio specific to the coating, and the VOC Actual for Coatings and VOC Regulatory for Coatings as applied; current manufacturer specification sheets, material safety data sheets (MSDS), technical data sheets, or air quality data sheets, which list the VOC Actual for Coatings and VOC Regulatory for Coatings of each ready-to-spray coating and automotive coating components; and purchase records identifying the coating type, name, and volume of coatings bought. [District Rule 4612] Federally Enforceable Through Title V Permit
- 33. Permittee shall maintain daily records of the following: quantity and type of coatings and solvents used, mix ratios (by volume) of components added to each coating, volume of coatings applied, VOC content of each coating as applied, VOC content of each solvent and for dip coating operations, the viscosity (cSt) of coatings. [District Rules 2520, 9.3.2, 4603, 4606 and 4612] Federally Enforceable Through Title V Permit
- 34. Permittee shall keep the following records for solvent cleaning activities: quantity of solvent used, manufacturers product data sheet or MSDS of solvents used, the solvent's name and manufacturer, VOC content of solvents in g/l or lb/gal, the mix ratio and VOC content of the batch when the solvent is a mixture of different materials blended by the permittee and the type of cleaning activity for which each solvent is used. [District Rules 2520, 9.3.2, 4603, 4606 and 4612] Federally Enforceable Through Title V Permit
- 35. Records shall be retained on-site for a minimum of five years and made available for District inspection upon request. [District Rules 1070, 2520, 9.4.2, 4603, 4606, and 4612] Federally Enforceable Through Title V Permit

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- AVENAL

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- 36. There shall be no visible emissions from the stack of the paint booth. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 37. The permittee shall maintain on a daily basis, records of visible emissions from the paint booth. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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**PERMIT UNIT:** C-195-10-2

#### **EQUIPMENT DESCRIPTION:**

1608 BHP DETROIT MODEL 16V-149TIB DIESEL-FIRED EMERGENCY IC ENGINE, COGENERATION **BUILDING 940** 

### PERMIT UNIT REQUIREMENTS

- This engine shall be equipped with a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion. [District NSR Rule] Federally Enforceable Through Title V Permit
- The engine shall be equipped with a non-resettable hour meter. [District Rules 2201 and 4702 and 17 CCR 93115 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- Injection timing shall be retarded at least 4 degrees from standard setting. [District NSR Rule] Federally Enforceable Through Title V Permit
- The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all time other than startup in tables 1a, 2a, 2c, and 2d to 40. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
- 10. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
- 11. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per year. [District Rules 2201, 4701 and 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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- 12. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
- 13. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
- 14. Emissions from the engine shall not exceed any of the following limits: 81.5 lb/day for PM10, 594.3 lb/day for NOx, 79 lb/day for SOx, 257.3 lb/day for CO, or 95.1 lb/day for VOC. [District Rules 2201 and 4301 and 17 CCR 93115] Federally Enforceable Through Title V Permit
- 15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- 16. {2417} Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
- 17. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 1070, 2520, 4701 and 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
- 18. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
- 19. On and after May 3, 2013, the permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 20. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-10-2: Aug 15 2011 2-43PM - GARCIAJ

**PERMIT UNIT:** C-195-12-8

### **EQUIPMENT DESCRIPTION:**

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

## PERMIT UNIT REQUIREMENTS

- 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
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
- 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] Federally Enforceable Through Title V Permit
- Source testing to measure natural gas-combustion NOx 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
- 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
- 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
- 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
- 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 REPULIBEINENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: CALIF STATE PRISON - AVENAL Ocation: 1 KINGS WAY, AVENAL, CA 93204 Location:

- 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
- 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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-12-8 : Aug 15 2011 2:43PM - GARCIAJ

**PERMIT UNIT:** C-195-13-8

EXPIRATIONDOAITE; 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

- 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
- Emissions rates shall not exceed any of the following limits: 9 ppmv NOx @ 3% O2 or 0.011 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, 100 ppmv CO @ 3% O2 or 0.061 lb-CO/MMBtu, or 0.004 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
- Boiler shall only be fired on PUC regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V
  Permit
- 4. Source testing to measure natural gas-combustion NOx 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. 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 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.

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-13-8: Aug 15 2011 2:43PM - GARCIAJ

- 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
- 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 NOx, CO, and O2 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 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 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 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 and 4306] Federally Enforceable Through Title V Permit

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-13-8: Aug 15 2011 2:43PM - GARCIAJ

**PERMIT UNIT:** C-195-16-1

EXPIRATION DAITE 10/31/2009

#### **EQUIPMENT DESCRIPTION:**

395 BHP CUMMINS MODEL QSM11-G1 DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR

### PERMIT UNIT REQUIREMENTS

- 1. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
- The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
- 3. The engine shall be equipped with a non-resettable hour meter. [District Rules 2201 and 4702 and 17 CCR 93115 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 4. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all time other than startup in tables 1a, 2a, 2c, and 2d to 40. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 5. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 6. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 8. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
- 10. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204

C-195-16-1 : Aug 15 2011 2:43PM -- GARCIAJ

- 11. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per year. [District Rules 2201, 4701 and 4702 and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 12. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
- 13. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
- 14. NOx emissions shall not exceed 3.94 g/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 15. The PM10 emissions rate shall not exceed 0.07 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rule 2201 and 17 CCR 93115] Federally Enforceable Through Title V Permit
- 16. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- 17. The sulfur content of the diesel fuel used shall not exceed 0.05% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 1070, 2520, 4701 and 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
- 19. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
- On and after May 3, 2013, the permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63 Subpart ZZZZ] 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 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-16-1: Aug 15 2011 2:43PM - GARCIAJ

**PERMIT UNIT:** C-195-17-2

EXPIRĀŢĴŶſŊŊĄſŢĘŀ #ċ/ᢋᠯ/2009

### **EQUIPMENT DESCRIPTION:**

GASOLINE DISPENSING OPERATION WITH ONE 12,000 GALLON (8,000 GALLON GASOLINE) GALLON DIESEL) HOOVER VAULT ABOVEGROUND STORAGE TANK SERVED BY A TWO-POINT PHASE I VAPOR RECOVERY SYSTEM (G-70-194), AND 1 FUELING POINT WITH 1 GASOLINE DISPENSING NOZZLE SERVED BY A BALANCE PHASE II VAPOR RECOVERY SYSTEM (G-70-52-AM)

## PERMIT UNIT REQUIREMENTS

- 1. The Phase I and Phase II vapor recovery systems shall be installed and maintained in accordance with the manufacturer specifications and the ARB Executive Orders specified in this permit, including applicable rules and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the Office of the State Fire Marshal of the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board that have been made conditions of the certification. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
- 2. This gasoline storage and dispensing equipment shall not be used in retail sales, where gasoline dispensed by the unit is subject to payment of California sales tax on gasoline sales. [District Rule 4622] Federally Enforceable Through Title V Permit
- 3. The storage container(s) shall be installed, maintained, and operated such that they are leak-free. [District Rule 4621] Federally Enforceable Through Title V Permit
- 4. The Phase I and Phase II vapor recovery systems and gasoline dispensing equipment shall be maintained without leaks as determined in accordance with the test method specified in this permit. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
- 5. A leak is defined as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute, or the detection of any gaseous or vapor emissions with a concentration of total organic compound greater than 10,000 ppmv, as methane, above background when measured in accordance with EPA Test Method 21. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
- 6. No gasoline delivery vessel shall be operated or be allowed to operate unless valid State of California decals are displayed on the cargo container, which attest to the vapor integrity of the container. [District Rule 4621] Federally Enforceable Through Title V Permit
- 7. No person shall operate any ARB certified Phase II vapor recovery system or any portion thereof that has a major defect or an equipment defect that is identified in any applicable ARB Executive Order until the following conditions have been met: 1) the defect has been repaired, replaced, or adjusted as necessary to correct the defect; 2) the District has been notified, and the District has reinspected the system or authorized the system for use (such authorization shall not include the authority to operate the equipment prior to the correction of the defective components); and 3) all major defects, after repair, are duly entered into the Operations and Maintenance (O&M) manual. [District Rule 4622] 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.

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-17-2: Aug 15 2011 2:43PM - GARCIAJ

- 8. Upon identification of any major defects, the permittee shall tag "Out-of-Order" all dispensing equipment for which vapor recovery has been impaired. Tagged equipment shall be rendered inoperable and the tag(s) shall not be removed until the defective equipment has been repaired, replaced, or adjusted, as necessary. In the case of defects identified by the District, tagged equipment shall be rendered inoperable, and the tag shall not be removed until the District has been notified of the repairs, and the District has either reinspected the system or authorized the tagged equipment for use. [District Rule 4622] Federally Enforceable Through Title V Permit
- 9. The permittee shall implement a periodic maintenance inspection program for the certified Phase II vapor recovery system consistent with the requirements of this permit. The program shall be documented in an operation and maintenance (O&M) manual and shall at a minimum contain the following information: 1) copies of all vapor recovery performance tests; 2) all applicable ARB Executive Orders, Approval Letters, and District Permits; 3) the manufacturer's specifications and instructions for installation, operation, repair, and maintenance required pursuant to ARB Certification Procedure CP-201, and any additional instruction provided by the manufacturer; 4) system and/or component testing requirements, including test schedules and passing criteria for each of the standard tests required by this permit (the owner/operator may include any non-ARB required diagnostic and other tests as part of the testing requirements), and 5) additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, ARB Executive Orders, and District permit conditions, including replacement schedules for failure or wear prone components. [District Rule 4622] Federally Enforceable Through Title V Permit
- 10. The permittee shall conduct periodic maintenance inspections based on the greatest monthly throughput of gasoline dispensed by the facility in the previous year as follows: A) less than 2,500 gallons one day per month; B) 2,500 to less than 25,000 gallons one day per week; or C) 25,000 gallons or greater five days per week. All inspections shall be documented within the O & M Manual. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
- 11. Periodic maintenance inspections of the Phase I vapor recovery system shall include, at a minimum, verification that 1) the fill caps and vapor caps are not missing, damaged, or loose; 2) the fill cap gasket and vapor cap gaskets are not missing or damaged; 3) the fill adapter and vapor adapter are securely attached to the risers; 4) where applicable, the spring-loaded submerged fill tube seals properly against the coaxial tubing; 5) the dry break (poppet-valve) is not missing or damaged; and 6) the submerged fill tube is not missing or damaged. [District Rule 4621] Federally Enforceable Through Title V Permit
- 12. Periodic maintenance inspections of the Phase II vapor recovery system shall include, at a minimum, verification that 1) the fueling instructions required by this permit are clearly displayed with the appropriate toll-free complaint phone number and toxic warning signs; 2) the following nozzle components are in place and in good condition as specified in ARB Executive Order as applicable: faceplate/facecone, bellows, latching device spring, vapor check valve, spout (proper diameter/vapor collection holes), insertion interlock mechanism, automatic shut-off mechanism, and hold open latch (unless prohibited by law or the local fire control authority); 3) the hoses are not torn, flattened or crimped; 4) the vapor path of the coaxial hoses associated with bellows equipped nozzles does not contain more than 100 ml of liquid if applicable; and 5) the vapor processing unit is functioning properly, for operations that are required to have or possess such a unit. [District Rule 4622] Federally Enforceable Through Title V Permit
- 13. In the event of a separation due to a drive off, the permittee shall, unless otherwise specified in the applicable ARB Executive Order, conduct a visual inspection of the affected equipment and either 1) perform qualified repairs on any damaged components and conduct applicable re-verification tests pursuant to the requirements of this permit, or 2) replace the affected nozzles, coaxial hoses, breakaway couplings, and any other damaged components with new or certified rebuilt components that are ARB certified. The activities shall be documented in accordance with the requirements of this permit before placing the affected equipment back in service. [District Rule 4622] Federally Enforceable Through Title V Permit
- 14. The permittee shall conduct all periodic vapor recovery system performance tests specified in this permit, no more than 30 days before or after the required compliance testing date, unless otherwise required under the applicable ARB Executive Order. [District Rules 4621 and 4622] 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.

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-17-2; Aug 15 2011 2-43PM - GARCIAJ

- 15. For certified Phase II vapor recovery systems with liquid removal devices, the permittee shall perform and pass an ARB TP-201.6 Liquid Removal Test whenever the liquid in the vapor path exceeds 100 ml of liquid. The amount of liquid in the vapor path shall be measured by lowering the gasoline dispensing nozzle into a container until such time that no more liquid drains from the nozzle. The amount of liquid drained into the container shall be measured using a graduated cylinder or graduated beaker. The vapor path shall be inspected once per month if monthly throughput is below 2,500 gallons or once per week otherwise. [District Rule 4622] Federally Enforceable Through Title V Permit
- 16. The permittee shall perform and pass a Static Leak Test for Aboveground Tanks using ARB TP-201.3B or TP-206.3 at least once every 12 months. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
- 17. A person conducting testing of, or repairs to, a certified vapor recovery system shall be in compliance with District Rule 1177 (Gasoline Dispensing Facility Tester Certification). [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
- 18. A person performing installation of, or maintenance on, a certified Phase I or Phase II vapor recovery system shall be certified by the ICC for Vapor Recovery System Installation and Repair, or work under the direct and personal supervision of an individual physically present at the work site who is certified. The ICC certification shall be renewed every 24 months. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
- 19. Proof of the ICC certification and all other certifications required by the Executive Order and installation and operation manual shall be made available onsite. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
- 20. The permittee shall notify the District at least 7 days prior to each performance test. The test results shall be submitted to the District no later than 30 days after the completion of each test. [District Rules 1081 and 4621] Federally Enforceable Through Title V Permit
- 21. The permittee shall maintain a copy of all test results. The test results shall be dated and shall contain the name, address, and telephone number of the company responsible for system installation and testing. [District Rule 4622] Federally Enforceable Through Title V Permit
- 22. The permittee shall maintain on the premises a log of any repairs made to the certified Phase I or Phase II vapor recovery system. The repair log shall include the following: 1) date and time of each repair; 2) the name and applicable certification numbers of the person(s) who performed the repair, and if applicable, the name, address and phone number of the person's employer; 3) description of service performed; 4) each component that was repaired, serviced, or removed; 5) each component that was installed as replacement, if applicable; and 6) receipts or other documents for parts used in the repair and, if applicable, work orders which shall include the name and signature of the person responsible for performing the repairs. [District Rule 4622] Federally Enforceable Through Title V Permit
- 23. The O&M manual shall be kept at the dispensing operation and made available to any person who operates, inspects, maintains, repairs, or tests the equipment at the operation as well as to District personnel upon request. [District Rule 4622] Federally Enforceable Through Title V Permit
- 24. The operator shall maintain monthly and annual gasoline throughput records. [District Rule 4622] Federally Enforceable Through Title V Permit
- 25. All records required by this permit shall be retained on-site for a period of at least five years and shall be made available for District inspection upon request. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
- 26. The District shall be notified within 24 hours of the facility's pass/fail status after the performance of each test. [District Rule 1081] Federally Enforceable Through Title V Permit

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-17-2; Aug 15 2011 2-43PM - GARCIAJ

# **ATTACHMENT B**

Previous Title V Operating Permit

**FACILITY:** C-195-0-1 **EXPIRATION DATE:** 10/31/2009

## **FACILITY-WIDE REQUIREMENTS**

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 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, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- 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, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- 4. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
- 5. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (3/21/02). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
- 6. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.12.1] Federally Enforceable Through Title V Permit
- 7. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
- 8. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
- 9. The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
- 10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

- 11. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 12. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
- 13. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 14. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 15. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 16. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 17. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 18. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 22. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
- 23. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (11/15/01). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-0-1: Aug 15 2011 2-47PM - GARCIAJ

- 24. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards of District Rule 4601 (10/31/01) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
- 25. All VOC-containing materials for architectural coatings subject to Rule 4601 (10/31/01) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
- 26. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (10/31/01). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
- 27. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 28. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 29. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR 82, Subpart B. [40 CFR 82, Subpart B] Federally Enforceable Through Title V Permit
- 30. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
- 31. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
- 32. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
- 33. Whenever open areas are disturbed or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
- 34. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
- 35. Any unpaved vehicle/equipment area that anticipates more than 75 vehicle trips per day shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 100 vehicle trips per day shall comply with the requirements of Section 5.1.2 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
- 36. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

- 37. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 38. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 39. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 40. On May 31, 2005 the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

**PERMIT UNIT: C-195-1-7** EXPIRATION DATE: 10/31/2009

#### **EQUIPMENT DESCRIPTION:**

2,600 KW SOLAR CENTAUR MODEL GSC-4500 GAS TURBINE, AVENAL #1, SN DCG0211, WITH UNFIRED ENERGY RECOVERY INC. MODEL 52.5-1816 THERMAL RECOVERY, SN W2272

### PERMIT UNIT REQUIREMENTS

- 1. This turbine shall not operate for more than 8,050 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. This turbine shall not operate when the 21 MMBtu/hr backup boiler (C-195-2) and the other turbine (C-195-3) are both operating except for cold starts of less than 1 hour, a shutdown of less than 2 hours, and boiler testing totaling less than 24 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- This turbine shall only be fired on PUC-regulated natural gas or on No. 2 fuel oil with a maximum sulfur content of 0.12% by weight as a backup fuel. [40 CFR 60.333, District NSR Rule, District Rule 4201, and District Rule 4801] Federally Enforceable Through Title V Permit
- Natural gas fuel consumption for the turbine shall not exceed 879,960 scf per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- No. 2 fuel oil with a maximum sulfur content of 0.12% by weight may be used for up to 100 hours per year if the natural gas supply is interrupted. No. 2 fuel oil consumption shall not exceed 8,540 gallons per day. [District NSR Rule, District Rule 4801, and 40 CFR 60.333(b)] Federally Enforceable Through Title V Permit
- The combined total operating hours of two turbines (C-195-1 and C-195-3) when operating concurrently with two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) shall not exceed 5,203 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- Daily hours of concurrent operation with the two 25.1 boilers (C-195-12 and C-195-13) shall be maintained. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
- When firing on natural gas, the exhaust NOx concentrations shall not exceed 35.0 ppmvd @15% O2 (averaged over a 3-hour period) or 4.27 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule, District Rule 4703, 5.1.2, and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
- When firing on No. 2 fuel oil, the exhaust NOx concentration shall not exceed 54.6 ppmvd @15% O2 (averaged over a 3-hour period) or 8.81 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule, District Rule 4703, 5.1.2, and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
- 10. When firing on natural gas, the exhaust CO concentration shall not exceed 130.0 ppmvd @ 15% O2 or 10.00 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule and District Rule 4703, 5.2] Federally Enforceable Through Title V Permit
- 11. When firing on No. 2 fuel oil, the exhaust CO concentration shall not exceed 172.3 ppmvd @ 15% O2 or 16.92 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule and District Rule 4703, 5.2] Federally Enforceable Through Title V Permit
- 12. Daily emissions shall not exceed any of the following: 122.6 lb-SOx/day, 36.0 lb-PM10/day, or 120.0 lb-VOC(NMHC)/day. [District NSR Rule and District Rule 4301] 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.

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-1-7: Feb 29 2012 1:49PM - GARCIAJ

- 13. Permittee shall perform a source test to measure NOx and CO emissions (ppmvd @ 15% O2 and lb/hr) at least once every twelve months. [District Rules 1081 and 4703, 6.3.1] Federally Enforceable Through Title V Permit
- 14. 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
- 15. 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
- 16. The following test methods shall be used: NOx: EPA Methods 7E or 20 or CARB Method 100; CO: EPA Methods 10 or 10B or CARB Method 100; and Oxygen content of the exhaust gas: EPA Methods 3, 3A, or 20. [40 CFR 60.8(a) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
- 17. The following test method shall be used for fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rule 4102 and 40 CFR 60.335(b)(10)(ii)] Federally Enforceable Through Title V Permit
- 18. The following test methods shall be used to determine the sulfur content of the liquid fuel: ASTM D129, D2622, D4294, D1266, D5453 or D1552. [District Rule 4801 and 40 CFR 60.335(b)(10)(i)] Federally Enforceable Through Title V Permit
- 19. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
- 20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer 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 Rule 4703 and 40 CFR 60.334]
- 21. If the NOx and/or CO concentrations, as measured by the permittee with a portable analyzer, exceed the permitted emission limits, the permittee shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than 8 hours after detection. If the permittee's portable analyzer readings continue to exceed the permitted emissions limits after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days to demonstrate compliance with the permitted emissions limits. In lieu of conducting a source test, the permittee may stipulate that a violation has occurred, subject to enforcement action. The permittee must 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 performing the notification and testing required by this condition. [District Rules 2201 and 4703]
- 22. All NOx, CO, and O2 emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4703]
- 23. When this unit is modified to comply with the Tier 3 emission limits in Rule 4703, the monitoring program shall be revised as appropriate for the NOx controls applied to the Tier 3-compliant unit. [District Rule 4703]
- 24. Permittee shall record fuel consumption, fuel type, and sulfur content of fuel. Records shall be retained for at least five years and shall be made available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 25. The owner or operator shall maintain the gas quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 10 grains/100 scf or less. [District Rule 2520, 9.3.2, District Rule 4301, and 40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit

- 26. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate, not to exceed one hour. [District Rule 4703, 3.19] Federally Enforceable Through Title V Permit
- 27. Thermal Stabilization Period shall be defined as the start up or shut down time during which the exhaust gas is not within the normal operating temperature range, not to exceed two hours. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
- 28. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 29. Particulate matter emissions shall not exceed 0.1 grains/scf at 12% CO2. [District Rule 4301] Federally Enforceable Through Title V Permit
- 30. The owner or operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods or thermal stabilizing periods, total hours of operation, and the type and quantity of fuel consumed. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
- 31. The owner or operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit





## **AUTHORITY TO CONSTRUCT**

PERMIT NO: C-195-2-9 ISSUANCE DATE: 07/27/2010

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 19.959 MMBTU/HR MOHAWK NATURAL GAS-FIRED BOILER WITH A POWER FLAME MODEL #NVC10-G-30 LOW NOX BURNER: LOWER THE BOILER EMISSION LIMIT FROM 15 PPMVD-NOX @ 3% O2 TO 9 PPMVD-NOX @ 3% O2 FOR COMPLIANCE WITH RULE 4320

### 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
- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 3. 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]
- 4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
- 5. 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]
- 6. On and after July 1, 2012, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320]
- 7. This boiler shall not be fired when both gas turbines (permit units C-195-1 and C-195-3) are operating except for cold start-up of less than 1 hour, a shutdown of less than 3 hours, or during boiler testing not to exceed a total of 24 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit

#### CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (659) 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

- This boiler shall not operate when both 25.1 MMBtu/hr boilers (permit units C-195-12 and C-195-13) are operating.
   [District NSR Rule] Federally Enforceable Through Title V Permit
- 9. The maximum annual heat input of the unit shall not exceed 555.6 MMBtu based on a rolling 12 consecutive month period. [District Rule 2201] Federally Enforceable Through Title V Permit
- The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201] 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 the unit shall be installed, utilized and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 9 ppmv NOx @ 3% O2 or 0.011 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 100 ppmv CO @ 3% O2 or 0.074 lb-CO/MMBtu, or 10 ppmv VOC @ 3% O2 or 0.004 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
- 13. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 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, 4306 and 4320] Federally Enforceable Through Title V Permit
- 14. 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
- 15. 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
- 16. 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
- 17. 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
- 18. 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] Federally Enforceable Through Title V Permit
- 19. 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

- 20. Source testing to measure NOx 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]
- 21. Source testing to measure NOx and CO emissions from this unit while fired on natural gas 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
- 22. 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
- 23. 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
- 24. Stack gas oxygen (O2) 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
- 25. 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
- 26. 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
- 27. Records of monthly and annual heat input of the unit shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
- 28. 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, 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

**PERMIT UNIT:** C-195-3-7 EXPIRATION DATE: 10/31/2009

#### **EQUIPMENT DESCRIPTION:**

2,600 KW SOLAR CENTAUR MODEL CSC-4500 GAS TURBINE, AVENAL #2, SN DCG02010, WITH ENERGY RECOVERY INC. MODEL 52.5-1416 THERMAL RECOVERY UNIT, SN W2274

### PERMIT UNIT REQUIREMENTS

- This turbine shall not operate for more than 8,050 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- This turbine shall not operate when the 21 MMBtu/hr backup boiler (C-195-2) and the other turbine (C-195-1) are both operating except for cold starts of less than 1 hour, a shutdown of less than 2 hours, and boiler testing totaling less than 24 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- This turbine shall only be fired on PUC-regulated natural gas or on No. 2 fuel oil with a maximum sulfur content of 0.12% by weight as a backup fuel. [40 CFR 60.333, District NSR Rule, District Rule 4201, and District Rule 4801] Federally Enforceable Through Title V Permit
- Natural gas fuel consumption for the turbine shall not exceed 879,960 scf per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- No. 2 fuel oil with a maximum sulfur content of 0.12% by weight may be used for up to 100 hours per year if the natural gas supply is interrupted. No. 2 fuel oil consumption shall not exceed 8,540 gallons per day. [District NSR Rule. District Rule 4801, and 40 CFR 60.333(b)] Federally Enforceable Through Title V Permit
- The combined total operating hours of two turbines (C-195-1 and C-195-3) when operating concurrently with two 25.1 MMBtu/hr boilers (C-195-12 and C-195-13) shall not exceed 5,203 hours per year. [District NSR Rule] Federally Enforceable Through Title V Permit
- Daily hours of concurrent operation with the two 25.1 boilers (C-195-12 and C-195-13) shall be maintained. [District Rules 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
- When firing on natural gas, the exhaust NOx concentrations shall not exceed 35.0 ppmvd @15% O2 (averaged over a 3-hour period) or 4.27 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule, District Rule 4703, 5.1.2, and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
- When firing on No. 2 fuel oil, the exhaust NOx concentration shall not exceed 54.6 ppmvd @15% O2 (averaged over a 3-hour period) or 8.81 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule, District Rule 4703, 5.1.2, and 40 CFR 60.332(a)(2)] Federally Enforceable Through Title V Permit
- 10. When firing on natural gas, the exhaust CO concentration shall not exceed 130.0 ppmvd @ 15% O2 or 10.00 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule and District Rule 4703, 5.2] Federally Enforceable Through Title V Permit
- 11. When firing on No. 2 fuel oil, the exhaust CO concentration shall not exceed 172.3 ppmvd @ 15% O2 or 16.92 lb/hr except during the thermal stabilizing period or reduced load period. [District NSR Rule and District Rule 4703, 5.2] Federally Enforceable Through Title V Permit
- 12. Daily emissions shall not exceed any of the following: 122.6 lb-SOx/day, 36.0 lb-PM10/day, or 120.0 lb-VOC(NMHC)/day. [District NSR Rule and District Rule 4301] 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.

Facility Name: CALIF STATE PRISON - AVENAL Location:

- 13. Permittee shall perform a source test to measure NOx and CO emissions (ppmvd @ 15% O2 and lb/hr) at least once every twelve months. [District Rules 1081 and 4703, 6.3.1] Federally Enforceable Through Title V Permit
- 14. 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
- 15. 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
- 16. The following test methods shall be used: NOx: EPA Methods 7E or 20 or CARB Method 100; CO: EPA Methods 10 or 10B or CARB Method 100; and Oxygen content of the exhaust gas: EPA Methods 3, 3A, or 20. [40 CFR 60.8(a) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
- 17. The following test method shall be used for fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rule 4102 and 40 CFR 60.335(b)(10)(ii)] Federally Enforceable Through Title V Permit
- 18. The following test methods shall be used to determine the sulfur content of the liquid fuel: ASTM D129, D2622, D4294, D1266, D5453 or D1552. [District Rule 4801 and 40 CFR 60.335(b)(10)(i)] Federally Enforceable Through Title V Permit
- 19. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
- 20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer 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 Rule 4703 and 40 CFR 60.334]
- 21. If the NOx and/or CO concentrations, as measured by the permittee with a portable analyzer, exceed the permitted emission limits, the permittee shall notify the District and return the NOx and CO concentrations to the permitted emission limits as soon as possible but no longer than 8 hours after detection. If the permittee's portable analyzer readings continue to exceed the permitted emissions limits after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days to demonstrate compliance with the permitted emissions limits. In lieu of conducting a source test, the permittee may stipulate that a violation has occurred, subject to enforcement action. The permittee must 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 performing the notification and testing required by this condition. [District Rules 2201 and 4703]
- 22. All NOx, CO, and O2 emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4703]
- 23. When this unit is modified to comply with the Tier 3 emission limits in Rule 4703, the monitoring program shall be revised as appropriate for the NOx controls applied to the Tier 3-compliant unit. [District Rule 4703]
- 24. Permittee shall record fuel consumption, fuel type, and sulfur content of fuel. Records shall be retained for at least five years and shall be made available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 25. The owner or operator shall maintain the gas quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 10 grains/100 scf or less. [District Rule 2520, 9.3.2, District Rule 4301, and 40 CFR 60.334(h)(3)] 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.

Facility Name: CALIF STATE PRISON - AVENAL

- 26. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate, not to exceed one hour. [District Rule 4703, 3.19] Federally Enforceable Through Title V Permit
- 27. Thermal Stabilization Period shall be defined as the start up or shut down time during which the exhaust gas is not within the normal operating temperature range, not to exceed two hours. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
- 28. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 29. Particulate matter emissions shall not exceed 0.1 grains/scf at 12% CO2. [District Rule 4301] Federally Enforceable Through Title V Permit
- 30. The owner or operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods or thermal stabilizing periods, total hours of operation, and the type and quantity of fuel consumed. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
- 31. The owner or operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit

**PERMIT UNIT: C-195-4-1** 

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

#### **EQUIPMENT DESCRIPTION:**

WOODWORKING OPERATION SERVED BY TORIT MODEL 30 CYCLONE DUST COLLECTOR, SN 224053, WITH TORIT CABINET-TYPE BAGHOUSE

### PERMIT UNIT REQUIREMENTS

- 1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Material removed from dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-1954-1: Aug 15 2011 2.47PM - GARCIAJ

**PERMIT UNIT:** C-195-6-1 **EXPIRATION DATE:** 10/31/2009

#### **EQUIPMENT DESCRIPTION:**

WOODWORKING OPERATION SERVED BY TORIT MODEL 30 FM CYCLONE DUST COLLECTOR, SERIES 30-15 WITH BAGHOUSE

### PERMIT UNIT REQUIREMENTS

- 1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Material removed from dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-6-1: Aug 15 2011 2:47PM - GARCIAJ

**PERMIT UNIT:** C-195-8-1

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

#### **EQUIPMENT DESCRIPTION:**

WOODWORKING OPERATION SERVED BY DONALDSON "TORIT" DUST COLLECTOR MODEL 30, #250077, WITH 24" CYCLONE AND FABRIC FILTER BAGHOUSE

### PERMIT UNIT REQUIREMENTS

- 1. Material removed from dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere.

  [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. 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
- 3. PM10 emissions shall not exceed 20 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-8-1: Aug 15 2011 2:47PM - GARCIAJ

PERMIT UNIT: C-195-9-3 EXPIRATION DATE: 10/31/2009

#### **EQUIPMENT DESCRIPTION:**

AUTOMOTIVE, METAL PARTS/PRODUCTS, AND WOOD PRODUCTS PAINT SPRAYING OPERATION WITH HVLP SPRAY GUN, RELY-ON PAINT SPRAY BOOTH, I.D. #IF121010, WITH DRY AIR FILTERS AND ENCLOSED GUN CLEANER, AND 0.4 MMBTU/HR DRYING OVEN

### PERMIT UNIT REQUIREMENTS

- 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 and 40 CFR Part 64] 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. No coatings, solvents, or additives containing chromium compounds shall be used. [CH&SC 41700] Federally Enforceable Through Title V Permit
- 4. VOC emissions from all coating operations shall not exceed 40 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. VOC emissions from all metal parts and products coating operations shall not exceed 14.0 pounds per day for the entire facility. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. Wood products coating application operations shall use a total of less than 20 gallons of coating per year. [District NSR Rule and District Rule 4606] Federally Enforceable Through Title V Permit
- 7. All painting, including application of primer, shall be conducted inside the booth with filters in place, fan(s) operating, and doors closed. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. During motor vehicle and mobile equipment coating, only HVLP, electrostatic, brush, dip, or roll coating application equipment, or other application equipment approved by the District in writing, shall be used. All application equipment shall be operated in accordance with the manufacturer's recommendations. [District Rule 4602] Federally Enforceable Through Title V Permit
- 9. During metal parts and products coating, only HVLP, electrostatic, electrodeposition, flow, roll, dip, brush or continuous coating application equipment shall be used, and the application equipment shall be operated in accordance with the manufacturer's recommendations. [District Rule 4603] Federally Enforceable Through Title V Permit
- 10. During wood product coating, only HVLP, electrostatic, brush, dip, flow, or roll coating application equipment shall be used, and the application equipment shall be operated in accordance with the manufacturer's recommendations.

  [District Rule 4606] Federally Enforceable Through Title V Permit
- 11. Permittee shall demonstrate that HVLP guns manufactured prior to 1/1/96 operate between 0.1 and 10 psig air atomizing pressure, by manufacturer's published technical material or by use of a certified air pressure tip gauge. [District Rules 4602, 4603, and 4606] 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.

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY AVENAL, CA 93204 C-195-9-3: Aug 16 2011 2.47PM - GARCIAJ

- 12. VOC content of coatings as applied, excluding water and exempt compounds, used for Group I vehicles or Group II vehicles (when a color match is required) shall not exceed any of the following limits: pretreatment wash primer 780 g/l (6.5 lb/gal), precoat: 600 g/l (5.0 lb/gal) primer/primer surfacer: 250 g/l (2.1 lb/gal), primer sealer: 420 g/l (3.5 lb/gal), topcoat: 420 g/l (3.5 lb/gal), metallic/iridescent topcoat: 520 g/l (4.3 lb/gal), and multi-stage topcoat system: 540 g/l (4.5 lb/gal). [District Rule 4602] Federally Enforceable Through Title V Permit
- 13. VOC content of coatings as applied, excluding water and exempt compounds, used for Group II vehicles (when a color match is not required) shall not exceed any of the following limits: pretreatment wash primer 780 g/l (6.5 lb/gal), precoat: 600 g/l (5.0 lb/gal), primer/primer surfacer: 250 g/l (2.1 lb/gal), primer sealer: 340 g/l (2.8 lb/gal), topcoat: 420 g/l (3.5 lb/gal), metallic/iridescent topcoat: 420 g/l (3.5 lb/gal), and camouflage: 420 g/l (3.5 lb/gal). [District Rule 4602] Federally Enforceable Through Title V Permit
- 14. VOC content of specialty coatings (as defined in Rule 4602) as applied, excluding water and exempt compounds, shall not exceed 840 g/l (7.0 lb/gallon). If specialty coating usage, except anti-glare/safety coatings, exceeds 1 gallon per day, such coatings shall not exceed 5% (by volume) of total coatings applied in any month. [District Rule 4602] Federally Enforceable Through Title V Permit
- 15. VOC content of temporary protective coatings shall not exceed 60 g/l (0.5 lb/gal) of material. [District Rule 4602] Federally Enforceable Through Title V Permit
- 16. VOC content of any coatings as applied, excluding water and exempt compounds, used for any metal parts or product shall not exceed any of the following limits, except as allowed elsewhere in this permit: baked coating 275 g/l (2.3 lb/gal), air-dried coating: 340 g/l (2.8 lb/gal), air-dried dip coating of steel joists with coating viscosity, as applied, of more than 45.6 centistokes at 78 øF or an average dry-film thickness of greater than 2.0 millimeters: 340 g/l (2.8 lb/gal), air-dried dip coating of steel joists with coating viscosity, as applied, of less than or equal to 45.6 centistokes at 78 øF or an average dry-film thickness of less than or equal to 2.0 millimeters: 400 g/l (3.32 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit
- 17. VOC content of baked specialty coatings as applied, excluding water and exempt compounds, used for metal parts or product shall not exceed any of the following limits: camouflage 360 g/l (3.0 lb/gal), extreme performance: 420 g/l (3.5 lb/gal), heat resistant: 360 g/l (3.0 lb/gal), high gloss: 360 g/l (3.0 lb/gal), high performance architectural: 420 g/l (3.5 lb/gal), high temperature: 420 g/l (3.5 lb/gal), metallic topcoat: 360 g/l (3.0 lb/gal), pretreatment wash primer: 420 g/l (3.5 lb/gal), silicone release: 420 g/l (3.5 lb/gal), solar absorbant: 360 g/l (3.0 lb/gal), and solid film lubricant: 880 g/l (7.3 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit
- 18. VOC content of air-dried specialty coatings as applied, excluding water and exempt compounds, used for metal parts or product shall not exceed any of the following limits: camouflage 420 g/l (3.5 lb/gal), extreme performance: 420 g/l (3.5 lb/gal), heat resistant: 420 g/l (3.5 lb/gal), high gloss: 420 g/l (3.5 lb/gal), high performance architectural: 420 g/l (3.5 lb/gal), high temperature: 420 g/l (3.5 lb/gal), metallic topcoat: 420 g/l (3.5 lb/gal), pretreatment wash primer: 420 g/l (3.5 lb/gal), silicone release: 420 g/l (3.5 lb/gal), solar absorbant: 420 g/l (3.5 lb/gal), and solid film lubricant: 880 g/l (7.3 lb/gal). [District Rule 4603] Federally Enforceable Through Title V Permit
- 19. Until 6/30/2005, VOC content of coatings as applied, excluding water and exempt compounds, used for wood product, shall not exceed any of the following limits: clear topcoat 550 g/l (4.6 lb/gallon), filler 500 g/l (4.2 lb/gallon), highsolids stains 700 g/l (5.8 lb/gallon), ink 500 g/l (4.2 lb/gallon), mold-seal coating 750 g/l (6.3 lb/gallon), multi-colored coating 275 g/l (2.3 lb/gallon), pigmented coating 550 g/l (4.6 lb/gallon), sanding sealer 550 g/l (4.6 lb/gallon). [District Rule 4606] Federally Enforceable Through Title V Permit
- 20. Effective 7/1/2005, VOC content of coatings as applied, excluding water and exempt compounds, used for wood product, shall not exceed any of the following limits: clear topcoat 275 g/l (2.3 lb/gallon), filler 275 g/l (2.3 lb/gallon), high-solids stains 240 g/l (2.0 lb/gallon), ink 500 g/l (4.2 lb/gallon), mold-seal coating 750 g/l (6.3 lb/gallon), multi-colored coating 275 g/l (2.3 lb/gallon), pigmented coating 275 g/l (2.3 lb/gallon), sanding sealer 275 g/l (2.3 lb/gallon). [District Rule 4606] Federally Enforceable Through Title V Permit
- 21. Until 6/30/2005, VOC content of coatings as applied, excluding water and exempt compounds, used for wood product, shall not exceed any of the following limits: low-solids stain 480 g/l (4.0 lb/gallon), stripper 350 g/l (2.9 lb/gallon). [District Rule 4606] Federally Enforceable Through Title V Permit

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-9-3: Aug 15 2011 247PM - GARCIAJ

- 22. Effective 7/1/2005, VOC content of coatings as applied, excluding water and exempt compounds, used for wood product, shall not exceed any of the following limits: low-solids stain 120 g/l (1.0 lb/gallon), stripper 350 g/l (2.9 lb/gallon). [District Rule 4606] Federally Enforceable Through Title V Permit
- 23. VOC content of strippable booth coating shall not exceed 450 g/l (3.8 lb/gallon) as applied, excluding water and exempt compounds. [District Rule 4606] Federally Enforceable Through Title V Permit
- 24. Amount of precoat used shall not exceed the amount of primer surfacer used. Precoat use shall be limited to one application per vehicle. Precoat shall not be used to fill in surface imperfections. [District Rule 4602] Federally Enforceable Through Title V Permit
- 25. Spot surface preparation for removal of road tar can use solvents with a VOC content greater than 50 g/l (0.42 lb/gallon) provided it is applied from hand-held spray bottles from which solvents are dispensed without a propellantinduced force. [District Rule 4602] Federally Enforceable Through Title V Permit
- 26. Surface preparation of plastic substrates can use solvents with a VOC content greater than 50 g/l (0.42 lb/gallon) but less than or equal to 100 g/l (0.84 lb/gallon) provided it is applied by one or more of the following methods: wipe cleaning; application of solvent from hand-held spray bottles from which solvents are dispensed without a propellantinduced force; non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4602] Federally Enforceable Through Title V Permit
- 27. Cleaning activities that use solvents with a VOC content greater than 50 g/l (0.42 lb/gallon) shall be performed by one or more of the following methods: wipe cleaning; application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rules 4603 and 4606] Federally Enforceable Through Title V Permit
- 28. During motor vehicle and mobile equipment coating, VOC content of solvents used shall not exceed any of the following limits: product cleaning during manufacturing process or surface preparation for coating application (except spot surface preparation solvent applied from hand held bottle for removal of road tar): 50 g/l (0.42 lb/gal); repair and maintenance cleaning: 50 g/l (0.42 lb/gal); and cleaning of coating application equipment: 550 g/l (4.6 lb/gal). VOC content of solvents used for surface preparation of plastic substrates shall not exceed 100 g/l (0.83 lb/gallon). [District Rule 4602] Federally Enforceable Through Title V Permit
- 29. During metal parts and products coating and wood products coating, VOC content of solvents used shall not exceed any of the following limits: product cleaning during manufacturing process or surface preparation for coating application: 50 g/l (0.42 lb/gal), repair and maintenance cleaning (except, until June 30, 2005, cleaning of ultraviolet lamps used for the curing of ultraviolet ink or coatings): 50 g/l (0.42 lb/gal), and cleaning of coating application equipment: 550 g/l (4.6 lb/gal). [District Rules 4603 and 4606] Federally Enforceable Through Title V Permit
- 30. Permittee shall maintain daily records of the following: quantity and type (Group I, Group II vehicle with color match, or Group II vehicle without color match) of each vehicle coated; specific coatings used on each vehicle; mix ratios (by volume) of components added to each coating; volume of coatings applied; VOC content of each coating as applied; and purchase and usage of each specific solvent or reducer, showing the date, type and volume purchased or used. [District Rules 2520, 9.3.2 and 4602] 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.

Facility Name: CALIF STATE PRISON - AVENAL 1 KINGS WAY, AVENAL, CA 93204 Location:

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- 31. Permittee shall maintain daily records of the following: quantity and type of coatings and solvents used, mix ratios (by volume) of components added to each coating, volume of coatings applied, VOC content of each coating as applied, and VOC content of each solvent. [District Rules 2520, 9.3.2, 4603 and 4606] Federally Enforceable Through Title V Permit
- 32. All fresh or spent coatings, adhesives, catalysts, thinners and solvents shall be stored in closed containers. Solvent laden cloth or paper shall be stored and disposed in closed non-absorbent containers. [District Rules 4602, 4603, and 4606] Federally Enforceable Through Title V Permit
- 33. The permittee shall not use materials with a VOC content greater than 50 g/l (0.42 lb/gallon) for spray equipment clean-up unless an enclosed system, or equipment proven to be equally effective at controlling emissions, is used for cleaning. [District Rules 4602, 4603, and 4606] Federally Enforceable Through Title V Permit
- 34. Permittee shall keep the following records for solvent cleaning activities: manufacturers product data sheet or MSDS of solvents used, VOC content of solvents in g/l or lb/gal, and the type of cleaning activity for which each solvent is used. [District Rules 2520, 9.3.2, 4602, 4603, and 4606] Federally Enforceable Through Title V Permit
- 35. Records shall be retained on-site for a minimum of five years and made available for District inspection upon request. [District Rules 1070, 2520, 9.4.2, 4602, 4603, and 4606] Federally Enforceable Through Title V Permit
- 36. There shall be no visible emissions from the stack of the paint booth. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 37. The permittee shall maintain on a daily basis, records of visible emissions from the paint booth. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

**PERMIT UNIT:** C-195-10-1 **EXPIRATION DATE:** 10/31/2009

#### **EQUIPMENT DESCRIPTION:**

1608 HP DETROIT MODEL 16V-149TIB DIESEL-FIRED EMERGENCY IC ENGINE, COGENERATION FACILITY, BUILDING 940

### PERMIT UNIT REQUIREMENTS

- The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 200 hours per year. [District NSR Rule and District Rule 4701, 4.2.1] Federally Enforceable Through Title V Permit
- 2. This engine shall be equipped with a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. The engine shall be equipped with a non-resettable hour meter. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Injection timing shall be retarded at least 4 degrees from standard setting. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. Emissions from the engine shall not exceed any of the following limits: 81.5 lb/day for PM10, 594.3 lb/day for NOx, 79 lb/day for SOx, 257.3 lb/day for CO, or 95.1 lb/day for VOC. [District NSR Rule and District Rule 4301] Federally Enforceable Through Title V Permit
- 6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- 7. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.), and the sulfur content of the diesel fuel used. Such records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2520, 9.4.2, and 4701, 6.2.2, 6.2.3] Federally Enforceable Through Title V Permit
- 8. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
- 9. Unit shall be fired only on diesel fuel with a sulfur content of less than 0.05% by weight. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
- 10. If the IC engine is fired on Air Resources Board regulated diesel fuel, with a supplier certified sulfur content less than 0.05% by weight, the operator shall maintain copies of all fuel invoices and supplier certifications. [District Rules 2520, 9.3.2 and 4801] Federally Enforceable Through Title V Permit
- 11. If the IC engine is not fired on ARB regulated diesel fuel, with a supplier certified sulfur content less than 0.05% by weight, then the owner or operator shall determine the sulfur content of each delivery of diesel fuel being fired in the IC engine. The sulfur content shall be determined using ASTM method D 2880. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-10-1: Aug 15 2011 2.47PM - GARCIAJ

**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

- 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
- 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 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] Federally Enforceable Through Title V Permit
- 5. Source testing to measure natural gas-combustion NOx 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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-12-7: Aug 15 2011 2:47PM - GARCIAJ

- 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 I 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.

Location: 195-12-7 : Aug 15 2011 2:47PM - GARCIAJ

Facility Name: CALIF STATE PRISON - AVENAL 1 KINGS WAY, AVENAL, CA 93204

**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

- 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 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] Federally Enforceable Through Title V Permit
- 5. Source testing to measure natural gas-combustion NOx 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.

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-13-7: Aug 15 2011 2:47PM - GARCIAJ

- 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

**PERMIT UNIT:** C-195-16-0

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

#### **EQUIPMENT DESCRIPTION:**

395 HP CUMMINS MODEL QSM11-G1 DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR

### PERMIT UNIT REQUIREMENTS

- 1. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201]
- 2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
- 3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 4. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 200 hours per year. [District NSR Rule and District Rule 4701]
- 5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
- 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. The sulfur content of the diesel fuel used shall not exceed 0.05% by weight. [District Rule 2201]
- 8. NOx emissions shall not exceed 3.94 g/hp-hr. [District Rule 2201]
- 9. The PM10 emissions rate shall not exceed 0.07 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rule 2201]
- 10. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.), and the sulfur content of the diesel fuel used. Such records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 1070]

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

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-19-0: Aug 15 2011 2:47PM - GARCIAJ

**PERMIT UNIT:** C-195-17-1 **EXPIRATION DATE:** 10/31/2009

#### **EQUIPMENT DESCRIPTION:**

GASOLINE DISPENSING OPERATION WITH ONE 12,000 GALLON (8,000 GALLON GASOLINE/4,000 GALLON DIESEL) HOOVER VAULT ABOVEGROUND STORAGE TANK SERVED BY A TWO-POINT PHASE I VAPOR RECOVERY SYSTEM (G-70-194), AND 1 FUELING POINT WITH 1 GASOLINE DISPENSING NOZZLE SERVED BY A BALANCE PHASE II VAPOR RECOVERY SYSTEM (G-70-52-AM)

### PERMIT UNIT REQUIREMENTS

- 1. The vapor recovery systems and their components shall be operated and maintained in accordance with the State certification requirements. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
- 2. This gasoline storage and dispensing equipment shall not be used in retail sales, where gasoline dispensed by the unit is subject to payment of California sales tax on gasoline sales. [District Rule 4622] Federally Enforceable Through Title V Permit
- 3. No gasoline delivery vessel shall be operated or be allowed to operate unless valid State of California decals are displayed on the cargo tank which attest to the vapor integrity of the tank. [District Rule 4621] Federally Enforceable Through Title V Permit
- 4. Vapor recovery systems and gasoline dispensing equipment shall be maintained leak-free. A "leak" is defined as the dripping of liquid volatile organic compounds at a rate of three or more drops per minute, or vapor volatile organic compounds in excess of 10,000 ppm as equivalent methane as determined by EPA Test Method 21. [District Rule 4622] Federally Enforceable Through Title V Permit
- 5. Any person conducting tests shall have completed a District-approved training program or the District's orientation class for testing and any subsequent required refresher class. [District Rule 4622] Federally Enforceable Through Title V Permit
- 6. For certified Phase II vapor recovery systems with liquid removal devices, the permittee shall perform and pass an ARB TP-201.6 Liquid Removal Test whenever the liquid in the vapor path exceeds 100 ml of liquid. The amount of liquid in the vapor path shall be measured by lowering the gasoline dispensing nozzle into a container until such time that no more liquid drains from the nozzle. The amount of liquid drained into the container shall be measured using a graduated cylinder or graduated beaker. The vapor path shall be inspected once per month if monthly throughput is below 2,500 gallons or once per week otherwise. [District Rule 4622] Federally Enforceable Through Title V Permit
- 7. The permittee shall perform and pass a Static Leak Test for Aboveground Tanks using ARB TP-201.3B at least once every 12 months. [District Rule 4622] Federally Enforceable Through Title V Permit

Facility Name: CALIF STATE PRISON - AVENAL Location: 1 KINGS WAY, AVENAL, CA 93204 C-195-17-1; Aug 15 2011 2:47PM - GARCIAJ

- 8. The operator shall implement a periodic maintenance inspection program for the certified Phase II vapor recovery system consistent with Section 5.4.2 of Rule 4622. The program shall be documented in an operation and maintenance (O&M) manual and shall at a minimum contain the following information: 1) All applicable ARB Executive Orders, Approval Letters, and District Permits; 2) The manufacturer's specifications and instructions for installation, operation, repair, and maintenance required pursuant to ARB Certification Procedure CP-201, and any additional instruction provided by the manufacturer; 3) System and/or component testing requirements, including test schedules and passing criteria for each of the standard tests. The owner/operator may include any non-ARB required diagnostic and other tests as part of the testing requirements; 4) Protocol for performing periodic maintenance inspections including the components to be inspected and the defects requiring repair; and 5) Additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, ARB Executive Orders, and District permit conditions, including replacement schedules for failure or wear prone components. [District Rule 4622] Federally Enforceable Through Title V Permit
- 9. The operator shall conduct periodic maintenance inspections based on the amount of gasoline dispensed by the facility in a calendar month as follows: A) less than 2,500 gallons one day per month; B) 2,500 to less than 25,000 gallons one day per week; or C) 25,000 gallons or greater five days per week. All inspections shall be documented within the O & M Manual. [District Rule 4622] Federally Enforceable Through Title V Permit
- 10. The operator shall maintain monthly gasoline throughput records. [District Rule 4622] Federally Enforceable Through Title V Permit
- 11. All records required by this permit shall be retained on-site for a period of at least five years, and shall be made available for inspection upon request. [District Rule 4622] Federally Enforceable Through Title V Permit
- 12. The operator shall maintain on the premises a log of any repairs made to the certified Phase I or Phase II vapor recovery system. The repair log shall include the following: 1) date and time of each repair; 2) the name of the person(s) who performed the repair, and if applicable, the name, address and phone number of the person's employer; 3) description of service performed; 4) each component that was repaired, serviced, or removed; 5) each component that was installed as replacement, if applicable; and 6) receipts or other documents for parts used in the repair and, if applicable, work orders which shall include the name and signature of the person responsible for performing the repairs. [District Rule 4622] Federally Enforceable Through Title V Permit
- 13. The District shall be notified by the permittee 15 days prior to each test. The test results shall be submitted to the District no later than 30 days after each test. [District Rule 1081] Federally Enforceable Through Title V Permit
- 14. The District shall be notified within 24 hours of the facility's pass/fail status after the performance of each test. [District Rule 1081] Federally Enforceable Through Title V Permit

## ATTACHMENT C

**Detailed Facility List** 

SJVUAPCD CENTRAL

## Detailed Facility Report For Facility=195

Sorted by Facility Name and Permit Number

8/15/11 2:40 pm

| CALIF STATE PRISON - AVENAL<br>1 KINGS WAY<br>AVENAL, CA 93204 |                                   | i.         | FAC<br>STA | #             | C 195<br>A<br>5593860587 |                  | TYPE: <b>TitleV</b> EXPIRE ON: 10/31/2009<br>TOXIC ID: <b>40015</b> AREA: 10 / 314<br>INSP. DATE: 09/11   |
|--|-----------------------------------|------------|------------|---------------|--------------------------|------------------|---|
| PERMIT<br>NUMBER   | FEE DESCRIPTION                   | FEE RULE   | QTY        | FEE<br>AMOUNT | FEE<br>TOTAL             | PERMIT<br>STATUS | EQUIPMENT DESCRIPTION   |
| C-195-1-4  | 2,600 KW GAS TURBINE AVENAL #1    | 3020-08A C | 1          | 1,533.00      | 1,533.00                 | Α                | 2,600 KW SOLAR CENTAUR MODEL GSC-4500 GAS TURBINE,<br>AVENAL #1, SN DCG0211, WITH UNFIRED ENERGY RECOVERY INC.<br>MODEL 52.5-1816 THERMAL RECOVERY, SN W2272  |
| C-195-2-8  | 19.959 MMBtu/hr                   | 3020-02 H  | 1          | 1,030.00      | 1,030.00                 | Α                | 19.959 MMBTU/HR MOHAWK NATURAL GAS-FIRED BOILER WITH A POWER FLAME MODEL #NVC10-G-30 LOW NOX BURNER   |
| C-195-3-4  | 2,600 KW GAS TURBINE AVENAL #2    | 3020-08A C | 1          | 1,533.00      | 1,533.00                 | Α                | 2,600 KW SOLAR CENTAUR MODEL CSC-4500 GAS TURBINE,<br>AVENAL #2, SN DCG02010, WITH ENERGY RECOVERY INC. MODEL<br>52.5-1416 THERMAL RECOVERY UNIT, SNW2274   |
| C-195-4-1  | 15 HP DUST COLLECTOR              | 3020-01 A  | 1          | 87.00         | 87.00                    | Α                | WOODWORKING OPERATION SERVED BY TORIT MODEL 30 CYCLONE DUST COLLECTOR, SN 224053, WITH TORIT CABINET-TYPE BAGHOUSE  |
| C-195-5-0  | MISC                              | 3020-06    | 1          | 105.00        | 105.00                   | D                | METAL PARTS AND PRODUCTS COATING OPERATION INCLUDING CUSTOM-BUILT PAINT SPRAY BOOTH WITH DRY EXHAUST FILTER. **PERMIT CANCELLED PER APPLICANT** (EV 2/17)   |
| C-195-6-1  | 15 HP CYCLONE DUST COLLECTOR      | 3020-01 A  | 1          | 87.00         | 87.00                    | Α                | WOODWORKING OPERATION SERVED BY TORIT MODEL 30 FM CYCLONE DUST COLLECTOR, SERIES 30-15 WITH BAGHOUSE  |
| C-195-7-0  | ELECTRIC MOTOR HORSEPOWER         | 3020-01 A  | 1          | 87.00         | 87.00                    | D                | WOOD AND METAL PARTS/PRODUCTS COATING OPERATION INCLUDING BINKS PAINT SPRAY BOOTH, S/N 11650, WITH DRY EXHAUST FILTERS. **PERMIT CANCELLED PER APPLICANT** (EV 2/17)  |
| C-195-8-1  | ELECTRIC MOTOR HORSE POWER        | 3020-01 C  | 1          | 197.00        | 197.00                   | Α                | WOODWORKING OPERATION SERVED BY DONALDSON "TORIT"<br>DUST COLLECTOR MODEL 30, #250077, WITH 24" CYCLONE AND<br>FABRIC FILTER BAGHOUSE   |
| C-195-9-3  | 400 KBTU/HR                       | 3020-02 C  | 1          | 197.00        | 197.00                   | A                | AUTOMOTIVE, METAL PARTS/PRODUCTS, AND WOOD PRODUCTS<br>PAINT SPRAYING OPERATION WITH HVLP SPRAY GUN, RELY-ON<br>PAINT SPRAY BOOTH, I.D. #IF121010, WITH DRY AIR FILTERS AND<br>ENCLOSED GUN CLEANER, AND 0.4 MMBTU/HR DRYING OVEN |
| C-195-10-1   | 1608 HP EMERGENCY GENERATOR       | 3020-10 F  | 1          | 749.00        | 749.00                   | Α                | 1608 HP DETROIT MODEL 16V-149TIB DIESEL-FIRED EMERGENCY IC ENGINE, COGENERATION FACILITY, BUILDING 940  |
| C-195-11-1   | ONE GASOLINE DISPENSING<br>NOZZLE | 3020-11 A  | 1          | 34.00         | 34.00                    | D                | ONE 10,000 GALLON UNDERGROUND STORAGE TANK SERVED BY COAXIAL PHASE I VAPOR RECOVERY SYSTEM (G-70-97) AND 1 FUELING POINT WITH 1 GASOLINE DISPENSING NOZZLE SERVED BY BALANCE PHASE II VAPOR RECOVERY SYSTEM (G-70-17-AC)          |
| C-195-12-7   | 25,100 kBtu/hr                    | 3020-02 H  | 1          | 1,030.00      | 1,030.00                 | <b>A</b>         | 25.1 MMBTU/HR CLEAVER BROOKS MODEL CB200-600, 150#<br>PACKAGED FIRE-TUBE NATURAL GAS-FIRED BOILER, SN L92694,<br>WITH ALZETA CSB-252R LOW-NOX BURNERS AND O2 CONTROLLER   |

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# Detailed Facility Report For Facility=195 Sorted by Facility Name and Permit Number

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| Softed by Facility Name and Permit Number |                           |           |     |          |          |        |  |  |
|---|---------------------------|-----------|-----|----------|----------|--------|--|--|
| PERMIT                                    |                           |           |     | FEE      | FEE      | PERMIT |  |  |
| NUMBER                                    | FEE DESCRIPTION           | FEE RULE  | QTY | AMOUNT   | TOTAL    | STATUS | EQUIPMENT DESCRIPTION  |  |
| C-195-13-7                                | 25,100 kBtu/hr boiler     | 3020-02 H | 1   | 1,030.00 | 1,030.00 | Α      | 25.1 MMBTU/HR CLEAVER BROOKS MODEL CB200-600, 150#<br>PACKAGED FIRE-TUBE NATURAL GAS-FIRED BOILER, SN L92695,<br>WITH ALZETA CSB-252R LOW-NOX BURNERS AND O2 CONTROLLER  |  |
| C-195-14-1                                | 21 HP DRY CLEANING SYSTEM | 3020-01 A | 1   | 87.00    | 87.00    | D      | UNION MODEL PERKMATIC 95 SUPER, 45 LB CAPACITY, CLOSED-<br>LOOP DRY-TO-DRY PERCHLOROETHYLENE DRY CLEANING<br>MACHINE WITH A REFRIGERATED VAPOR CONDENSER   |  |
| C-195-16-0                                | 395 HP                    | 3020-10 C | 1   | 240.00   | 240.00   | Α      | 395 HP CUMMINS MODEL QSM11-G1 DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR  |  |
| C-195-17-1                                | 1 nozzle                  | 3020-11 A | 1   | 34.00    | 34.00    | Α      | GASOLINE DISPENSING OPERATION WITH ONE 12,000 GALLON (8,000 GALLON GASOLINE/4,000 GALLON DIESEL) HOOVER VAULT ABOVEGROUND STORAGE TANK SERVED BY A TWO-POINT PHASE I VAPOR RECOVERY SYSTEM (G-70-194), AND 1 FUELING POINT WITH 1 GASOLINE DISPENSING NOZZLE SERVED BY A BALANCE PHASE II VAPOR RECOVERY SYSTEM (G-70-52-AM) |  |

Number of Facilities Reported: 1