



MAY 1 2 2010

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

Re: Notice of Final Action - Title V Permit Renewal

District Facility # S-723 Project # S-1062709

Dear Mr. Rios:

The District has issued the Final Renewed Title V Permit for Chalk Cliff Limited. The preliminary decision for this project was made on March 24, 2010. No comments were received subsequent to the District preliminary decision.

The public notice for issuance of the Final Renewed Title V Permit will be published approximately three days from the date of this letter.

I would like to thank you and your staff for working with us. We appreciate your concurrence with this action. Should you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely

Director of Permit Services

Attachments

cc: Thom Maslowski, Permit Services Engineer

Seyed Sadredin

Executive Director/Air Pollution Control Officer





MAY 1 2 2010

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

Notice of Final Action - Title V Permit Renewal

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Dear Mr. Tollstrup:

The District has issued the Final Renewed Title V Permit for Chalk Cliff Limited. The preliminary decision for this project was made on March 24, 2010. No comments were received subsequent to the District preliminary decision.

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cc: Thom Maslowski, Permit Services Engineer

Seved Sadredin

Executive Director/Air Pollution Control Officer





MAY 1 2 2010

Raymond Rodriguez Chalk Cliff Limited 34759 Lencioni Bakersfield, CA 93308

Re: Notice of Final Action - Title V Permit Renewal

> **District Facility # S-723** Project # S-1062709

Dear Mr. Rodriguez:

The District has issued the Final Renewed Title V Permit for Chalk Cliff Limited. The preliminary decision for this project was made on March 24, 2010. No comments were received subsequent to the District preliminary decision.

The public notice for issuance of the Final Renewed Title V Permit will be published approximately three days from the date of this letter.

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

Sincerely,

David Warner

Director of Permit Services

Attachments -

cc: Thom Maslowski, Permit Services Engineer

Seved Sadredin

Executive Director/Air Pollution Control Officer

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT NOTICE OF FINAL DECISION TO ISSUE RENEWED FEDERALLY MANDATED OPERATING PERMIT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District has made its final decision to issue the renewed Federally Mandated Operating Permit to Chalk Cliff Limited for its cogeneration power plant at 29041 Highway 33 in Maricopa, California.

The District's analysis of the legal and factual basis for this proposed action, project #S-1062709, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. For additional information regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900, or contact David Warner, Director of Permit Services, in writing at SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CA 93726-0244.

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

Title V Permit Renewal Evaluation Chalk Cliff Limited S-723

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TITLE V PERMIT RENEWAL EVALUATION

<u>Cogeneration</u>

Engineer: Thom Maslowski

Date: 9/17/2009

Facility Number: S-723

Facility Name: Chalk Cliff Limited
Mailing Address: 34759 Lencioni Ave

Bakersfield, CA 93308

Contact Name: Raymond Rodriguez

Phone: (661)393-6885

Responsible Official: Mr. Ed Capehart

Title: Plant Manager

Project #: S-1062709

Deemed Complete: 6/29/06

I. PROPOSAL

Chalk Cliff Limited was issued a Title V permit on December 31, 2002. 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

Chalk Cliff Limited is located at 29041 Highway 33 in Maricopa, 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 is requesting to use the following model general permit Templates:

A. Template SJV-UM-0-2 Facility Wide Umbrella

The applicant has requested to utilize template No. SJV-UM-0-2, <u>Facility Wide Umbrella</u>. Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

B. Template SJV-GT-1-3 Series 1 Gas Turbines

The applicant has requested to utilize template No. SJV-GT-1-3, <u>Series 1</u> <u>Gas Turbines</u> for unit -723-1. Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

V. SCOPE OF EPA AND PUBLIC REVIEW

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

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

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

Conditions 1 through 41 of the requirements for permit unit S-723-0-2.

Conditions 33 through 63 of the requirements for permit units S-723-1-7.

VI. FEDERALLY ENFORCEABLE REQUIREMENTS

A. Rules Updated

- District Rule 2020, Exemptions 1 (amended December 19, 2002)
- District Rule 2201, <u>New and Modified Stationary Source Review Rule</u> (amended December 19, 2002)
- District Rule 4101, <u>Visible Emissions</u> ¹
 (amended November 15, 2001⇒ amended February 17, 2005)
- District Rule 4601, <u>Architectural Coatings</u> ¹ (amended December 17, 2009)
- District Rule 4703, <u>Stationary Gas Turbines</u> ² (amended September 20, 2007)
- District Rule 8031, <u>Bulk Materials</u> ¹(Amended August 19, 2004)
- District Rule 8041, <u>Carryout and Trackout</u> ¹ (Amended August 19, 2004)
- District Rule 8051, Open Areas ² (Amended August 19, 2004)
- District Rule 8061, <u>Paved and Unpaved Roads</u> ¹ (Amended August 19, 2004)
- District Rule 8071, <u>Unpaved Vehicle/Equipment Traffic Areas</u> ¹ (September 16, 2004)

Following Rules are amended from previous Non-SIP version to correct SIP deficiencies and are now included in SIP.

• 40 CFR Part 60, Subpart GG, New Source Performance Standards; Standard of Performance for Stationary Gas Turbines²

¹ Requirements of this rule addressed by Facility-Wide Umbrella Template SJV-UM-0-3

² Requirements of this rule addressed by Facility-Wide Umbrella Template SJV-GT-1-3

- 40 CFR Part 61, Subpart M, <u>National Emission Standard for Asbestos</u>
- 40 CFR Part 82, Subparts B and F, Stratospheric Ozone

B. Rules Added

Following rules are that are applicable to operation of this facility has been adopted since issuance of the initial Title V permit.

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

B. Rules Not Updated

- District Rule 1080, Stack Monitoring ² (Amended December 17, 1992)
- District Rule 1081, Source Sampling ² (amended December 16, 1993)
- District Rule 1100, <u>Equipment Breakdown</u> ¹ (amended December 17,1992)
- District Rule 1160, Emission Statements 1 (adopted November 18, 1992)
- District Rule 2010, Permits Required 1 (amended December 17, 1992)
- District Rule 2031, <u>Transfer of Permits</u> 1 (amended December 17, 1992)
- District Rule 2040, <u>Applications</u> ¹ (amended December 17, 1992)
- District Rule 2070, <u>Standards for Granting Applications</u> ¹ (amended December 17, 1992)
- District Rule 2080, Conditional Approval 1 (amended December 17, 1992)
- District Rule 2520, <u>Federally Mandated Operating Permits</u> ^{1, 2} (amended June 21, 2001)
- District Rule 4001, <u>New Source Performance Standards</u> ¹ (amended April 14, 1999)

¹ Requirements of this rule addressed by Facility-Wide Umbrella Template SJV-UM-0-2

² Requirements of this rule addressed by Facility-Wide Umbrella Template SJV-GT-1-3

- District Rule 4201, <u>Particulate Matter Concentration</u>² (amended December 17, 1992)
- District Rule 4202, <u>Particulate Matter Emission Rate</u> (amended December 17, 1992)
- District Rule 4801, <u>Sulfur Compounds</u> (amended December 17, 1992)
- District Rule 7012, <u>Hexavalent Chromium Cooling Towers</u> (amended December 17, 1992)
- 40 CFR Part 60, Subpart A, General Provisions²
- 40 CFR Part 64, <u>Compliance Assurance Monitoring</u>
- 40 CFR Part 72, Permits Regulation
- 40 CFR Part 73, <u>Sulfur Dioxide Allowance System</u>
- 40 CFR Part 75, Continuous Emission Monitoring
- 40 CFR Part 77, Excess Emissions

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:

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

Condition 42 of permit unit -0-2 are based on District Rule 4102 and will therefore not be discussed any further.

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 since the issuance of the initial Title V permit.

A. District Rule 2020 - Exemptions

District Rule 2020 lists equipment which are 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.
- 2) 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 4101 - Visible Emissions

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

Condition 22 of permit unit -0-2 ensures compliance.

D. District Rule 4601 – Architectural Coatings

This rule limits the emissions of VOC's from architectural coatings. It requires limiting the application of any architectural coating to no more than what is listed in the Table of Standards (Section 5.0). This rule further specifies labeling requirements, coatings thinning recommendations, and storage requirements. Conditions 23, 24, and 25 of permit unit -0-2 ensures compliance.

The current rule differs significantly from the previously SIP approved 9/17/97 version. The following changes were included in the latest rule amendment that resulted in adding new permit requirements and/or revising current permit requirements:

- The tables outlining the VOC content of different specialty coatings has been largely replaced with the Table of Standards in Section 5.0.
- New labeling, reporting, test methodology and other requirements have been incorporated into the rule in order to allow ARB to administer the Averaging Program as detailed in Section 8.0.

Conditions 23, 24 and 25 of the requirements for this revised facility wide permit S-723-0-2 will assure compliance with the requirements of this rule.

E. District Rule 4703 – <u>Stationary Gas Turbines</u>

Section 2.0 of this rule states that the provisions of this rule apply 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, except as provided in Section 4.0.

The gas turbine is rated at heat input rate greater than 3 MMBtu/hour. Therefore, each turbine is subject to the requirements of this rule.

Section 5.1 – NO_X Emission Requirements

Section 5.1.2, Table 5-2, Tier 2 NOx Compliance Limits, requires the owner or operator to achieve less than or equal to 5 ppmvd NOx @ 15% O_2 to meet Tier-2 compliance schedule listed in Section 7.2.

Tier 2 NO _x Compliance Limits						
Turbine Classification	Compliance Option	NO _X Compliance Limit, ppmvd at 15% O ₂				
Rating	(see Section 7.2)	Gas Fuel	Liquid Fuel			
e) Greater than 10 MW, Simple cycle, and permit condition for greater than 877 hrs/year operation	Standard	5	25			

Condition 23 of permit S-723-1-7 shows compliance with this limit.

Section 5.2 – CO Emission Requirements

Section 5.2, Table 5-4, CO Compliance Limits, requires the owner or operator to operate and maintain the gas turbine such that CO emissions must be less than 200 ppmvd @ 15% O₂. Rule 4703 does not include a specific averaging period requirement for demonstrating compliance with the CO emission limit. The District practice is to require CO emissions compliance demonstration on 3-hour rolling average period.

Compliance with these two sections are demonstrated with permit condition 27 of S-723-1-7.

Section 5.3 – Transitional Operation Periods

NOx and CO emission limits (listed above) shall not apply during a transitional operation period, which includes bypass transition period, primary re-ignition period, reduced load period, start-up or shutdown (each term is defined in Section 3.0 of Rule 4703), provided an operator shall meet the following conditions:

- The duration of each startup or each shutdown shall not exceed two hours.
- For each bypass transition period, the requirements specified in Section 3.2 shall be met.
- For each primary re-ignition period, the requirements specified in Section 3.20 shall be met¹.
- Each reduced load period shall not exceed one hour.

The facility has demonstrated compliance with the two hour startup and shutdown duration requirements. Compliance with this section is demonstrated with conditions 44 and 45 of -1-7.

Section 6.2 - Monitoring and Recordkeeping

Section 6.2.3 applies to units 10 MW and greater that are operated an average of more than 4,000 hours per year over the last three years before August 18, 1994, the owner or operator shall monitor the exhaust gas NOx emissions. The NOx monitoring system shall meet EPA requirements as specified in 40 CFR Part 60 App. B, Spec. 2, 40 CFR Part 60 App. F, and 40 CFR Part 60.7 ©, 60.7 (d) and 60.13.

Section 6.2.4 requires the facility to maintain all records for a period of five years from the date of data entry and shall make such records available to the APCO upon request.

Section 6.2.5 requires that the owner or operator submit to the APCO, before issuance of the Permit to Operate, information correlating the control system operating to the associated measure NO_X output.

Section 6.2.6 requires the facility to maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, and the type and quantity of fuel used.

Section 6.2.7 establishes recordkeeping requirements for units that are exempt pursuant to the requirements of Section 4.2. Each of the proposed turbines is subject to the requirements of this rule. Therefore, the requirements of this section are not applicable and no further discussion is required.

¹ This requirement is applicable to a gas turbine with dry low-NOx combustors. Each turbine under this project is equipped with water injection system. Thus, this requirement is not applicable to these units.

Section 6.2.8 requires owners or operators performing startups or shutdowns to keep records of the duration of each startup and shutdown. As discussed in the Section 6.2.6 discussion above for this rule.

Compliance with the monitoring and recordkeeping requirements of this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-723-1-7	48, 56, 58 & 59

Sections 6.3 and 6.4 - Compliance Testing

Section 6.3.1 states that the owner or operator of any stationary gas turbine system subject to the provisions of Section 5.0 of this rule shall provide source test information annually regarding the exhaust gas NO_X and CO concentrations. Each gas turbine is required to be tested annually to ensure compliance with NO_X and CO concentrations.

Section 6.3.2 specifies source testing requirements for units operating less than 877 hours per year. The turbines at this facility will be allowed to operate in excess of 877 hours per year. Therefore, the requirements of this section are not applicable and no further discussion is required.

Section 6.3.3 states that units with intermittently operated auxiliary burners shall demonstrate compliance with the auxiliary burner in both "on" and "off" configurations.

Section 6.4 states that the facility must demonstrate compliance annually with the NO_X and CO emission limits using the following test methods, unless otherwise approved by the APCO and EPA:

- Oxides of nitrogen emissions for compliance tests shall be determined by using EPA Method 7E or EPA Method 20.
- Carbon monoxide emissions for compliance tests shall be determined by using EPA Test Methods 10 or 10B.
- Oxygen content of the exhaust gas shall be determined by using EPA Methods 3, 3A, or 20.
- HHV and LHV of gaseous fuels shall be determined by using ASTM D3588-91. ASTM 1826-88, or ASTM 1945-81.

Conditions will be added to will ensure continued compliance with the test method requirements of this section.

Compliance with the compliance testing requirements of this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)			
S-723-1-7	49, 50, 51, 52 57 & 60			

The District has determined that the facility has been operating in compliance with the requirements of this section. Therefore, these engines are operating in compliance with the requirements of this section and no further discussion is required.

F. 40 CFR 60 Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

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 unit S-723-1-7 was initially constructed before February 18, 2005 and not been modified or reconstructed since. Therefore requirements of this NSPS are not applicable.

G. 40 CFR Part 60, Subpart GG, Standard of Performance for Stationary Gas Turbines

This requirement limits emissions of nitrogen oxides. Emissions shall not exceed a NO_x emission rate of 75 ppmv or 150 ppmv, depending on the unit size (at 15% O_2 with the ISO correction factor). The following analysis shows that the proposed requirement of District Rule 4703 is more stringent than 40 CFR requirements pertaining to NO_x emissions. Streamlining procedures, as documented in the following steps is utilized to substitute the proposed set of requirements for the otherwise applicable requirements.

The following table has side-by-side comparison of applicable requirements:

Type of Requirement	District Rule 4703	Subpart GG, § 60.332, 60.333 and 60.334	Proposed Requirement
Emissions Limit	Section 5.1.2 - for > 10 MW, 5 ppmv @ 15% O ₂ . (Tier II Standard Option)	60.332(a)(1) – 75 ppmv @ 15% O ₂ . (Lowest possible concentration) 60.333(a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015% by volume at 15% oxygen and on a dry basis.	3 ppmv @ 15% O₂.
Work place standards	N/A	60.333(b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel, which contains sulfur in excess of 0.8% by weigh (8000 ppmw).	This unit shall be fired exclusively on PUC-quality natural gas which has a total sulfur content of less than or equal to 1.0 gr/100 scf
	control devices, the owner or operator	stationary gas turbine subject to the provisions of this subpart and using water injection to control NO _x emissions shall install or operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. 60.334(b) Install, certify, maintain, operate, and quality-assure a continuous emissions monitoring system for NOx and O ₂ . 60.334(h)(3) The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) demonstrated by representative fuel sampling data which shows that sulfur content of gas does not exceed 0.25	The owner or operator shall install, certify, maintain, operate, and quality-assure a system which continuously measures and records the exhaust gas NO _x and O ₂ concentrations. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. If sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the Monitoring frequency shall be every six (6) months. If any six (6) month monitoring show exceedance, weekly monitoring shall resume and exceedance shall be reported to APCO

Type of Requirement	District Rule 4703	Subpart GG, § 60.332, 60.333 and 60.334	Proposed Requirement
Č	emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred	submit reports of excess emissions and monitor downtime as required under §60.7(c), periods of excess emissions that shall be reported are defined as follows: 60.334(J)(1)(iii) - An hour of excess emissions shall be any operating	cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard;
, and the second	Annual Testing for nitrogen oxides (NOx) concentrations using EPA Method 20 or 7E and oxygen (O ₂) using Method 3, 3A, or 20.	EPA method 20 or 7E and EPA method	Annual Testing for nitrogen exides (NOx) concentrations using EPA Method 20 or 7E and oxygen (O ₂) using Method 3, 3A, or 20.

The District Rule 4703 requirement to limit NOx concentration to 5 ppmv @ 15% O2 is clearly more stringent than the Subpart GG emissions limit of 75 ppmv as discussed below. Condition 23 to the draft PTO assures compliance with this requirement.

Compliance with SO_x Emission Concentration Limit - 60.333(a):

Natural gas suppliers in California (PG&E, SOCal Gas, etc) regulate the quality of the gas as following:

 Pacific Gas & Electric (PG&E) has a transportation agreement to deliver gas with a maximum total sulfur content of 1.0 gr/100 scf (actual: 0.3 to 0.5 gr/100 scf, based on source testing).

- Southern California Edison's (SoCal Gas) <u>Standard Specifications for Natural Gas and Substitute Fuel Gases</u> (from SoCal Gas Company Procedures, 12/26/85) has a recommended total sulfur limit of 0.75 gr/100 scf.
- Mojave Gas Company's <u>FERC Gas Tariff General Terms and Conditions</u> (12/30/91) requires delivered natural gas to contain no more than 0.75 gr/100 scf total sulfur.

The California Air Resource Board (ARB), in their document <u>Guidance for Power Plant Siting</u> (Stationary Source Div., 6/99), also determined that 1.0 gr S/100 scf is the sulfur content of gas supplied by a utility regulated by the Public Utilities Commission (PUC).

All natural gas that is regulated enters the PUC pipeline for distribution to consumers and is tested to assure that its composition conforms to above standards. Therefore, total sulfur content of 1.0 gr/100 scf is consistent with quality of gas supplied by the utilities.

Compliance is expected as shown by the following calculations at 1 grain of total sulfur per 100 standard cubic feet of gas, assuming all sulfur is converted to SO₂.

$$\%S(lb/lbNG) = \left(\frac{1 \text{ gr}}{100 \text{ scf}}\right) \left(\frac{1 \text{ lb}}{7000 \text{ gr}}\right) \left(\frac{24.5 \text{ L}}{\text{mol NG}}\right) \left(\frac{1 \text{ mol}}{16 \text{ g}}\right) \left(\frac{454 \text{ g}}{1 \text{ lb}}\right) \left(\frac{0.035 \text{ scf}}{1 \text{ L}}\right) (100)$$
= 0.00348% sulfur by weight

lb SO_2/scf gas = $(0.0000348)(1 lb/23.8 scf gas)(64 lb <math>SO_2/32 lb S)$ = $2.92 E-6 lb SO_2/scf gas$

Ib $SO_2/V_{exhaust}$ = (Ib SO_2/scf gas) ÷ (F factor) (Btu content of natural gas)

$$\left(\frac{\text{lb SO}_2}{\text{Vexhaust}}\right) = \frac{\left(2.92\,\text{E} - 6\,\frac{\text{lb SO}_2}{\text{scf gas}}\right)\!\left(\frac{10^6\,\text{Btu}}{\text{MMBtu}}\right)}{\left(8710\,\frac{\text{dscf}}{\text{MMBtu}}\right)\!\left(1000\,\frac{\text{Btu}}{\text{scf}}\right)} = 3.35\,\text{E} - 7\,\frac{\text{lb SO}_2}{\text{dscf exhaust}}$$

 $V_{SO2}/V_{exhaust} = nRT/P$

where.

n = moles SO_2 = (3.35 E-7 lb SO_2 /dscf exhaust)/(64 lb SO_2 / lb-mol)

R = universal gas constant = 10.73 psi-ft³/lb-mol-R

T = standard temperature = 60 F = 520 R

P = standard pressure = 14.7 psi

Therefore,
$$\left(\frac{V_{SO_2}}{V_{exhaust}}\right) = \frac{\left(\frac{3.35\,\text{E} - 6\,\text{lb}\,\text{SO}_2}{\text{dscf}\,\text{exhaust}}\right) \left(\frac{10.73\,\text{psi} - \text{ft}^3}{\text{lb} - \text{mole} - ^{\circ}\text{R}}\right)\!\!\left(520\,^{\circ}\text{R}\right)}{\left(\frac{64\,\text{lb}\,\text{SO}_2}{\text{lb} - \text{mol}}\right)\!\!\left(14.7\,\text{psi}\right)} = 1.99\text{E} - 6\,\frac{\text{dscf}}{\text{dscf}\,\text{exhaust}}$$

= 1.99 ppmv dry

Diluting it to 15% O₂

ppmv @ 15% O2 = ppmv dry
$$X\left(\frac{20.9 - 15}{20.9}\right) = 0.56 \text{ ppmv}$$

0.56 ppmv << 150 ppmv.

Compliance with 150 ppmv SO_x at 15% excess O_2 and dry standard conditions and 2,000 ppmv is assured because the unit has a fuel sulfur content of 1.0 gr/100 scf. Condition 41 of the permit ensures compliance with this rule and condition.

Compliance with Sulfur Fuel Content Limit - 60.333(b):

Natural gas with fuel sulfur content of 1.0 gr/100 scf or less assures compliance with the 0.8% sulfur by weight limit of New Source Performance Standard, Subpart GG - 40 CFR Subpart 60.333(b). This standard can be converted to an expression of weight percent of sulfur in the natural gas (ng):

$$\%S(lb/lbNG) = \left(\frac{1 \text{ gr}}{100 \text{ scf}}\right) \left(\frac{1 \text{ lb}}{7000 \text{ gr}}\right) \left(\frac{24.5 \text{ L}}{\text{mol NG}}\right) \left(\frac{1 \text{ mol}}{16 \text{ g}}\right) \left(\frac{454 \text{ g}}{1 \text{ lb}}\right) \left(\frac{0.035 \text{ scf}}{1 \text{ L}}\right) (100)$$
= 0.00348% sulfur by weight

Thus natural gas with fuel sulfur content of 1.0 gr/100 scf or less assures compliance with the 0.8% sulfur by weight limit of New Source Performance Standard, Subpart GG - 40 CFR Subpart 60.333(b).

F. 40 CFR Part 64-CAM

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

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

a. <u>S-723-1-7 – Gas Turbine</u>

The unit is not subject to CAM for PM_{10} or SO_x because it does not have add-on controls for either of those pollutants. Uncontrolled VOC emission are below the major source threshold so CAM is not applicable.

The unit has continuous emission monitors (CEMS) for NOx and CO so CAM is not applicable and the equipment is exempt from CAM requirements. The standard conditions that require the CEMs to be installed, calibrated, maintained, and require the data to be reported ensure that the equipment will remain exempt from CAM requirements.

G. 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos

These regulations apply to demolition or renovation activity, as defined in 40 CFR 61.141. 40 CFR Section 61.150 of this Subpart was amended September 18, 2003, and condition 35 of S-723-0-3 assures compliance with the requirements.

H. 40 CFR Part 82, Subparts B and F, Stratospheric Ozone

These regulations apply to servicing motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC). Sections of this regulation were amended in 2004 and 2008, and conditions 27 and 28 of S-723-0-3 assure compliance with the requirements.

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

1. Model General Permit Template SJV-UM-0-2

By submitting Model General Permit Template SJV-UM-0-2 qualification form, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template. Therefore, the permit shields as granted in Model General Permit Template is included as conditions 39 and 40 of the facility-wide requirements (S-723-0-2).

2. Model General Permit Template SJV-GT-1-3

By submitting Model General Permit Template SJV-GT-1-3 qualification form, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template for the 49 MW G.T.E. Cogeneration Unit S-723-1-7. Therefore, the permit shields as granted in Model General Permit Template is included as conditions 61, 62 and 63.

X. PERMIT CONDITIONS

See Attachment A - Renewed Title V Operating Permit.

XI. ATTACHMENTS

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

ATTACHMENT A

Renewed Title V Operating Permit





Permit to Operate

FACILITY: S-723 **EXPIRATION DATE: 12/31/2014**

LEGAL OWNER OR OPERATOR:

CHALK CLIFF LIMITED

MAILING ADDRESS:

34759 LENCIONI AVE. SUITE A

BAKERSFIELD, CA 93308

FACILITY LOCATION:

HEAVY OIL WESTERN MIDWAY SUNSET, CA

FACILITY DESCRIPTION:

COGENERATION

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

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

Seved Sadredin

David Warner

San Joaquin Valley Air Pollution Control District

FACILITY: S-723-0-2 EXPIRATION DATE: 12/31/2014

FACILITY-WIDE REQUIREMENTS

- 1. 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
- 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
- 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
- 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
- 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
- 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
- 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
- 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
- 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.

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

- 23. 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
- 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 (12/17/09) 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 (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. 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. 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
- 28. 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
- 29. 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 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
- 30. 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 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
- 31. 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 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
- 32. 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 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
- 33. 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 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
- 34. 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 (9/16/04) or Rule 8011 (8/19/04). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
- 35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

- 36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), and Rule 111 (Kern, Tulare, Kings). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V **Permit**
- 40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (11/15/01); 4601, sections 5.1, 5.2, 5.3 and 5.8 (12/17/09); 8021 (8/19/04); 8031 (8/19/04); 8041 (8/19/04); 8051 (8/19/04); 8061 (8/19/04); and 8071 (9/16/04). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 41. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin December 31 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
- 42. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-723-1-7 **EXPIRATION DATE: 12/31/2014**

SECTION: 31 TOWNSHIP: 32S RANGE: 24E

EQUIPMENT DESCRIPTION:

49 MW G.T.E. COGENERATION UNIT WITH STEAM INJECTION AND SELECTIVE CATALYTIC REDUCTION SYSTEM

PERMIT UNIT REQUIREMENTS

- Gas-fired turbine engine shall be equipped with a selective catalyst reduction (SCR) NOx control system utilizing ammonia as reducing agent. [District NSR Rule] Federally Enforceable Through Title V Permit
- Unfired heat recovery steam generator shall not be designed for supplementary firing. [District Rule 2010] Federally Enforceable Through Title V Permit
- Gas-fired turbine engine shall be equipped with continuously recording emission monitors for NOx, CO, and O2 which conform to District Rule 1080 (as amended December 17, 1992) specifications. [District NSR Rule] Federally Enforceable Through Title V Permit
- Adequate provisions shall be made for testing exhaust stack for air contaminants, i.e., capped sampling ports in accessible location of uniform flow. [District NSR Rule] Federally Enforceable Through Title V Permit
- Gas turbine engine shall be fired exclusively on PUC regulated quality natural gas. [District NSR Rule, 4201, and 40] CFR 60.333] Federally Enforceable Through Title V Permit
- Gas turbine engine steam injection rate shall be maintained at a steam to fuel ratio expected to result in compliance with emission limits, except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- Ammonia slip shall not exceed 20 ppmv and daily compliance with ammonia slip emissions limit shall be demonstrated by means of the calculation procedure. [District Rule 4102]
- Ammonia slip shall be calculated as: slip = (a-bxc/1,000,000) x 1,000,000/b, where a=ammonia injection rate(lb/hr)/17(lb/lb.mol), and b=dry exhaust gas flow rate (lb/hr)/29(lb/lb.mol); and c=change in measured NOx concentration ppmvd at stack O2) [District Rule 4102]
- Gas turbine engine shall not be operated unless steam injection and SCR system are operating, except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Inlet gas temperature to catalyst bed shall be maintained within the range recommended by catalyst manufacturer except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Gas turbine engine shall not burn more than 10.04 MM scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. All gas turbine engine exhaust shall flow through SCR catalyst bed. [District NSR Rule] Federally Enforceable Through Title V Permit
- 13. Gas turbine lube oil tank atmospheric vent shall be equipped with mist eliminator. If visible vent emissions exceed 0% opacity, Chalk Cliff Ltd. shall perform testing to demonstrate compliance with lube oil vent VOC emissions limit. [District NSR Rule] Federally Enforceable Through Title V Permit

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

Facility Name: CHALK CLIFF LIMITED HEAVY OIL WESTERN, MIDWAY SUNSET, CA

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- 14. Failure of catalyst to perform as required because of catalyst poisoning or fouling, except as the result of an unforeseeable breakdown, shall not be recognized as basis for Rule 1100 enforcement exemption. [District Rule 1100] Federally Enforceable Through Title V Permit
- 15. Chalk Cliff Limited shall comply in full with applicable Rule 4001 (New Source Performance Standards) requirements including notification, record keeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit
- 16. Continuous emission monitoring systems shall be calibrated and operated according to EPA guidelines as specified in CFR Title 40, Part 60, Appendix B. [District Rule 1080] Federally Enforceable Through Title V Permit
- 17. Audits of continuous emissions monitors shall be conducted quarterly by independent laboratory in accordance with EPA guidelines, witnessed by District, and reports shall be submitted to the District within 30 days of such audit. [District Rule 1080 and 40 CFR 60, Appendix F, Section 5.1] Federally Enforceable Through Title V Permit
- 18. Chalk Cliff Limited shall make continuous emissions monitoring printouts readily available for District inspection upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
- 19. Chalk Cliff Limited shall maintain accurate records of gas turbine engine daily fuel consumption and shall make such records readily available for District inspection for a period of 5 years. [District Rule 1080 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 20. Steam produced at this facility for use in oil production operations shall effect only wells connected to well vent vapor recovery systems owned by Oxy USA. [District NSR Rule] Federally Enforceable Through Title V Permit
- 21. Maximum PM10 emission rate shall not exceed 140.64 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 22. Maximum sulfur compound emissions rate (as SO2) shall not exceed 6.72 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 23. Maximum emission concentration of nitrogen oxides (as NO2) shall not exceed 5 ppmv dry calculated to 15% O2 averaged over a three hour period, except during periods of startup and shutdown. [District NSR Rule and Rule 4703, 5.11 Federally Enforceable Through Title V Permit
- 24. Nitrogen oxide emissions (as NO2) shall not exceed 190.80 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 25. Maximum VOC emissions rate shall not exceed 5.23 lbs/hr except during periods of startup and shutdown, and shall not exceed 126.44 lbs/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 26. Maximum VOC emissions rate from turbine lube oil cooler atmospheric vents shall not exceed 19 pounds per day. Compliance will be assured by visible emissions checks. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 27. Maximum carbon monoxide emission concentration shall not exceed 55 ppmv dry calculated to 15% O2 averaged over a three hour period, except during periods of startup or shutdown. [District NSR Rule and Rule 4703, 5.1] Federally Enforceable Through Title V Permit
- 28. Carbon monoxide emissions shall not exceed 1278.24 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 29. Compliance with NOx (ppmv), CO (ppmv), turbine exhaust VOC (hourly), and ammonia (ppmv) emissions limits and turbine lube oil cooler atmospheric vent opacity shall be demonstrated by District witnessed sample collection and observation by independent testing laboratory annually. [District Rule 1081] Federally Enforceable Through Title V Permit
- 30. Official test results and field data collected during source testing shall be submitted to the District within 60 days of testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 31. A written record of startup/shutdown shall be maintained and made available for District inspection for a period of five years. [District NSR Rule and 2520, 9.4.2] 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: CHALK CLIFF LIMITED

Location: HEAVY OIL WESTERN, MIDWAY SUNSET, CA s-723-1-7: May 10 2010 1:37PM - KEASTMD

- 32. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of three hours and one hour, respectively, per occurrence. [District Rule 4001] Federally Enforceable Through Title V Permit
- 33. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NOx and O2 concentrations. [40 CFR 60.334(b) and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit
- 34. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V
- 35. The NOx and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2 and 3, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(1) and, District Rule 1080, 6.3, 6.5, 6.6, & 7.2] Federally Enforceable Through Title V Permit
- 36. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V **Permit**
- 37. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
- 38. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5) and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
- 39. Excess emissions shall be defined as any operating hour in which 4-hour rolling average NOx concentration exceeds applicable emissions limit and a period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or O2 (or both). [40 CFR 60.334(J)(1)(iii)] Federally Enforceable Through Title V Permit
- 40. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
- 41. This unit shall be fired exclusively on natural gas as defined in 40 CFR 60.331(u) which has a total sulfur content of less than or equal to 1.0 gr/100 scf. [40 CFR 60.333(b), District Rule 4201, County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus County)] Federally Enforceable Through Title V Permit
- 42. The owner or operator shall not operate the gas turbine under load conditions, excluding the thermal stabilization period or reduced load period, which results in the measured NOx emissions concentration exceeding 5 ppmv @ 15% O2. [40 CFR 60.332(a)(1), (a)(2) and District Rule 4703, 5.1.2.1] Federally Enforceable Through Title V Permit
- 43. The owner or operator shall not operate the gas turbine under load conditions, excluding the thermal stabilization period or reduced load period, which results in the measured CO emissions concentration exceeding 200 ppmv @ 15% O2. [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.

- 44. The duration of each startup or shutdown shall not exceed two hours. [District Rule 4703, 5.3] Federally Enforceable Through Title V Permit
- 45. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.26, 3.29, and 5.3] Federally Enforceable Through Title V Permit
- 46. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- 47. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. If sulfur content is less than 1.0 gr/100 scf for 8 consecutive weeks, then the Monitoring frequency shall be every six (6) months. If any six (6) month monitoring show an exceedance, weekly monitoring shall resume. [40 CFR 60.334(h)(3) and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 48. The NOx monitoring system shall meet EPA requirements as specified in 40 CFR Part 60 App. B, Spec. 2, 40 CFR Part 60 App. F, and 40 CFR Part 60.7 c, 60.7 (d) and 60.13. [District Rule 4703, 6.2.3]
- 49. Source testing to determine compliance with the NOx and CO rates (ppmvd @ 15% O2) shall be conducted once every 12 months. [District Rules 2201 and 4703, 6.3.1, and CFR 60.335(a)] Federally Enforceable Through Title V Permit
- 50. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 4703, 6.3.1, 6.3.3, and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
- 51. HHV and LHV of the fuel shall be determined using ASTM D 3588-91, ASTM 1826-88, or ASTM 1945-81. [District Rule 4703, 6.4.5, and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
- 52. The following test methods shall be used: NOx EPA Method 7E or 20 or CARB Method 100; CO EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a. NOx test results shall be corrected to ISO standard conditions as defined in 40 CFR 60.335. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 6.4, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit
- 53. The owner or operator shall be required to conform to the sampling facilities and testing procedures described in District Rule 1081, 3.0, & 6.0 (as amended 12/16/93). [District Rule 1081, 3.0 & 6.0] Federally Enforceable Through Title V Permit
- 54. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
- 55. Performance testing shall be witnessed or authorized District personnel. Test results must be submitted to the District within 60 days of performance testing. [District Rule] Federally Enforceable Through Title V Permit
- 56. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit

Location: HEAVY OIL WESTERN, MIDWAY SUNSET, CA 5-723-1-7. May 10 2010 1:37PM - KEASTMD

- 57. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
- 58. Owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local time start-up and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
- 59. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing, evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
- 60. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [40 CFR 60.335(b)(3) and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit
- 61. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 62. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a)(1), (a)(2), 60.333 (b); 60.334(b) (b)(1), (b)(2), (h)(3), (j), (j)(1)(iii), and (j)(5), and 60.335(a), (b)(7), (b)(3), and District Rule 4703 (as amended 4/25/02), Sections 5.1.2.1, 5.2, 6.2.2, 6.2.6, 6.3, and 6.4. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 63. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.13, and District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 8.0, and 11.0; 1081(as amended 12/16/93), Sections 3.0, 6.0, 7.1, 7.2, and 7.3; and 4201 (as amended 12/17/92). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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ATTACHMENT B

Previous Title V Operating Permit

San Joaquin Valley Air Pollution Control District

FACILITY: S-723-0-1 **EXPIRATION DATE: 12/31/2006**

FACILITY-WIDE REQUIREMENTS

- 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; Kern County Rule 111] Federally Enforceable Through Title V Permit
- 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; Kern County Rule 111] Federally Enforceable Through Title V Permit
- 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
- 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
- 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
- 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
- Every application for a permit required under Rule 2010 (12/17/92) (Permits Required) shall be filed in a manner and 7. form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
- 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
- The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

- 10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with Section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
- 12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 21. 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
- 22. 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), by using EPA method 9. 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 Kern County Rule 401] Federally Enforceable Through Title V Permit

- 23. 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
- 24. 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
- 25. 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
- 26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 27. 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
- 28. 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
- 29. Disturbances of soil related to any construction, demolition, excavation, extraction, or water mining activities shall comply with the requirements for fugitive dust control in SJVUAPCD 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
- 30. 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
- 31. An owner/operator shall prevent or cleanup any carryout and 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
- 32. 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
- 33. 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 8011] Federally Enforceable Through Title V Permit
- 34. 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 8011] Federally Enforceable Through Title V Permit
- 35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

- 36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V **Permit**
- 38. 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 permit shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following outdated SIP requirements: Kern County Rule 401, Kern County Rule 111, Kern County Rule 202. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 40. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92);2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (12/17/92); 4601, sections 5.1, 5.2, 5.4, 5.5, 6.1, and 6.2 (10/31/01); 8021 (11/15/01); 8031 (11/15/01); 8061 (11/15/01); A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 41. On December 31, 2002, 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
- 42. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 43. When applicable to 40 CFR Part 68, a subject facility shall submit to the proper authority a Risk Management Plan when mandated by the regulation. [40 CFR Part 68] Federally Enforceable Through Title V Permit

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-723-1-6

SECTION: 31 TOWNSHIP: 32S RANGE: 24E

EQUIPMENT DESCRIPTION:

49 MW G.T.E. COGENERATION UNIT WITH STEAM INJECTION AND SELECTIVE CATALYTIC REDUCTION SYSTEM

PERMIT UNIT REQUIREMENTS

EXPIRATION DATE: 12/31/2006

- Gas-fired turbine engine shall be equipped with a selective catalyst reduction (SCR) NOx control system utilizing ammonia as reducing agent. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Unfired heat recovery steam generator shall not be designed for supplementary firing. [District Rule 2010] Federally Enforceable Through Title V Permit
- Gas-fired turbine engine shall be equipped with continuously recording emission monitors for NOx, CO, and O2 which conform to District Rule 1080 (as amended December 17, 1992) specifications. [District NSR Rule] Federally Enforceable Through Title V Permit
- Adequate provisions shall be made for testing exhaust stack for air contaminants, i.e., capped sampling ports in accessible location of uniform flow. [District NSR Rule] Federally Enforceable Through Title V Permit
- Gas turbine engine shall be fired exclusively on PUC regulated quality natural gas. [District NSR Rule, 4201, and 40 5. CFR 60.333] Federally Enforceable Through Title V Permit
- Gas turbine engine steam injection rate shall be maintained at a steam to fuel ratio expected to result in compliance with emission limits, except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- Ammonia slip shall not exceed 20 ppmv and daily compliance with ammonia slip emissions limit shall be demonstrated by means of the calculation procedure. [District Rule 4102]
- Ammonia slip shall be calculated as: slip = (a-bxc/1,000,000) x 1,000,000/b, where a=ammonia injection rate(lb/hr)/17(lb/lb.mol), and b=dry exhaust gas flow rate (lb/hr)/29(lb/lb.mol); and c=change in measured NOx concentration ppmvd at stack O2) [District Rule 4102]
- Gas turbine engine shall not be operated unless steam injection and SCR system are operating, except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. Inlet gas temperature to catalyst bed shall be maintained within the range recommended by catalyst manufacturer except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Gas turbine engine shall not burn more than 10.04 MM scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. All gas turbine engine exhaust shall flow through SCR catalyst bed. [District NSR Rule] Federally Enforceable Through Title V Permit
- 13. Gas turbine lube oil tank atmospheric vent shall be equipped with mist eliminator. If visible vent emissions exceed 0% opacity, Chalk Cliff Ltd. shall perform testing to demonstrate compliance with lube oil vent VOC emissions limit. [District NSR Rule] Federally Enforceable Through Title V Permit

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

Facility Name: CHALK CLIFF LIMITED

Location: HEAVY OIL WESTERN, MIDWAY SUNSET, CA \$-723-1-6 : May 10 2010 9:16AM - MASLOWST

- 14. Failure of catalyst to perform as required because of catalyst poisoning or fouling, except as the result of an unforeseeable breakdown, shall not be recognized as basis for Rule 1100 enforcement exemption. [District Rule 1100] Federally Enforceable Through Title V Permit
- 15. Chalk Cliff Limited shall comply in full with applicable Rule 4001 (New Source Performance Standards) requirements including notification, record keeping and monitoring requirements. [District Rule 4001] Federally Enforceable Through Title V Permit
- 16. Continuous emission monitoring systems shall be calibrated and operated according to EPA guidelines as specified in CFR Title 40, Part 60, Appendix B. [District Rule 1080] Federally Enforceable Through Title V Permit
- 17. Audits of continuous emissions monitors shall be conducted quarterly by independent laboratory in accordance with EPA guidelines, witnessed by District, and reports shall be submitted to the District within 30 days of such audit. [District Rule 1080 and 40 CFR 60, Appendix F, Section 5.1] Federally Enforceable Through Title V Permit
- 18. Chalk Cliff Limited shall make continuous emissions monitoring printouts readily available for District inspection upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
- 19. Chalk Cliff Limited shall maintain accurate records of gas turbine engine daily fuel consumption and shall make such records readily available for District inspection for a period of 5 years. [District Rule 1080 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 20. Steam produced at this facility for use in oil production operations shall effect only wells connected to well vent vapor recovery systems owned by Oxy USA. [District NSR Rule] Federally Enforceable Through Title V Permit
- 21. Maximum PM10 emission rate shall not exceed 140.64 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 22. Maximum sulfur compound emissions rate (as SO2) shall not exceed 6.72 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 23. Maximum emission concentration of nitrogen oxides (as NO2) shall not exceed 5 ppmv dry calculated to 15% O2 averaged over a three hour period, except during periods of startup and shutdown. [District NSR Rule and Rule 4703, 5.1] Federally Enforceable Through Title V Permit
- 24. Nitrogen oxide emissions (as NO2) shall not exceed 190.80 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 25. Maximum VOC emissions rate shall not exceed 5.23 lbs/hr except during periods of startup and shutdown, and shall not exceed 126.44 lbs/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 26. Maximum VOC emissions rate from turbine lube oil cooler atmospheric vents shall not exceed 19 pounds per day. Compliance will be assured by visible emissions checks. [District NSR Rule and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 27. Maximum carbon monoxide emission concentration shall not exceed 55 ppmv dry calculated to 15% O2 averaged over a three hour period, except during periods of startup or shutdown. [District NSR Rule and Rule 4703, 5.1] Federally Enforceable Through Title V Permit
- 28. Carbon monoxide emissions shall not exceed 1278.24 pounds per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 29. Compliance with NOx (ppmv), CO (ppmv), turbine exhaust VOC (hourly), and ammonia (ppmv) emissions limits and turbine lube oil cooler atmospheric vent opacity shall be demonstrated by District witnessed sample collection and observation by independent testing laboratory annually. [District Rule 1081] Federally Enforceable Through Title V Permit
- 30. Official test results and field data collected during source testing shall be submitted to the District within 60 days of testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 31. A written record of startup/shutdown shall be maintained and made available for District inspection for a period of five years. [District NSR Rule and 2520, 9.4.2] 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: CHALK CLIFF LIMITED

Location: HEAVY OIL WESTERN, MIDWAY SUNSET, CA 5-723-1-6: May 10 2010 9:16AM - MASLOWST

- 32. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed a time period of three hours and one hour, respectively, per occurrence. [District Rule 4001] Federally Enforceable Through Title V Permit
- 33. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Kern County Rule 404] Federally Enforceable Through Title V Permit
- 34. Thermal Stabilization Period shall be defined as the start up or shut down time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
- 35. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [Kern County Rule 108.1 and District Rule 1081] Federally Enforceable Through Title V Permit
- 36. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332(a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
- 37. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a NOx performance test nor shall NOx emissions in excess of the level of the emission limit shown in this permit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit of 40 CFR 60 unless otherwise specified in the applicable standard. [40 CFR 60.8(c)] Federally Enforceable Through Title V Permit
- 38. Nitrogen oxides (NOx) and oxygen (O2) concentrations shall be determined using EPA Method 7E and 20. If EPA Method 20 is used, the span values shall be 300 ppm of NOx and 21 percent O2. [40 CFR 60.335(b)(c)(2),(3) and District Rule 4703, 6.41 Federally Enforceable Through Title V Permit
- 39. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [Kern County Rule 108 and District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
- 40. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [Kern County Rule 108; District Rule 1080, 7.3; 40 CFR 60.7(b)] Federally Enforceable Through Title V Permit
- 41. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills to demonstrate use of PUC-regulated natural gas by the turbine. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 42. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334(a),(b),(c) and District Rule 4703, 5.0] Federally Enforceable Through Title V Permit
- 43. 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, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit
- 44. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: 40 CFR 60.333 (a) and (b); 60.334(a),(b), and (c)(1); Kern County Rule 404; Kern County Rule 108; Kern County Rule 108.1; SJVUAPCD Rule 4703, Section 6.2.2 and 1080, 7.3. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 45. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements; SJVUAPCD Rule 4201, 1081 and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; Kern County Rule 407; 40 CFR 60.332(c) and (d); 60.334(b) and (c)(2); 60.335(d). A permit shield is granted from these requirements, [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

- 46. Compliance with permit conditions in the Title V permit shall be deemed compliance with the applicable requirements of District Rule 4703 (Amended 4/25/02). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 47. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: 40 CFR 60.332(a), (b); 60.335(a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 48. The continuous NOx monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [Kern County Rule 108 and District Rule 1080, 6.7] Federally Enforceable Through Title V Permit
- 49. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [Kern County Rule 108 and District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
- 50. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. Operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Kern County Rule 108 and District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
- 51. Operators of CEM's installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include: A. time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; B. averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; C. applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; D. a negative declaration when no excess emissions occurred. [Kern County Rule 108 and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit

S-723-1-6: May 10 2010 9:16AM - MASLOWST

ATTACHMENT C

Detailed Facility List

SJVUAPCD SOUTHERN

Detailed Facility Report For Facility=723 Sorted by Facility Name and Permit Number

5/10/10 9:15 am

CHALK CLIFF LIMITED HEAVY OIL WESTERN MIDWAY SUNSET, CA		·	FAC # STATUS: TELEPHONE:			5	TOXIC ID: 50034	AREA: INSP. DATE:	12/31/2006 6 / 10/10
PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION		
S-723-1-6	48 MW	3020-08A G	1	10,215.00	10,215.00	Α	49 MW G.T.E. COGENERATION UNIT SELECTIVE CATALYTIC REDUCTION		CTION AND

Number of Facilities Reported: 1