San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

OCT 27 2011

Clare Hoang
Exxon Mobil Corporation
Corp-Mi-3049
P O Box 4358
Houston, TX 77210-4358

Re: Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)
District Facility # S-1328
Project # S-1103464

Dear Mr. Hoang:

Enclosed for your review is the District's analysis of your application for Authorities to Construct for the facility identified above. You have requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The applicant is proposing to add a condition to limit the sulfur content of all fuels used to no more than 5 grains per 100 scf, for District Rule 4320 compliance.

After addressing any EPA comments made during the 45-day comment period, the Authorities to Construct will be issued to the facility with a Certificate of Conformity. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

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

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

Enclosures
cc: Thom Maslowski, Permit Services

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
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AIR POLLUTION CONTROL DISTRICT

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OCT 27 2011

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

Re: **Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)**
District Facility # S-1328
Project # S-1103464

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authorities to Construct for Exxon Mobil Corporation, located at Heavy Oil Western - Hill Lease, S Belridge Field in Mckittrick, CA; Section 19 Township 28S Range 21E, which has been issued a Title V permit. Exxon Mobil Corporation is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. The applicant is proposing to add a condition to limit the sulfur content of all fuels used to no more than 5 grains per 100 scf, for District Rule 4320 compliance.

Enclosed is the engineering evaluation of this application, a copy of the current Title V permit, and proposed Authorities to Construct # S-1328-1-21, '-2-22, '-3-22 with Certificate of Conformity. After demonstrating compliance with the Authorities to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

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cc: Thom Maslowski, Permit Services

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San Joaquin Valley Air Pollution Control District
Authority to Construct

Oilfield Gas-Fired Steam Generators

Facility Name:	Exxon Mobil Corporation	Date:	10/20/2011
Mailing Address:	P O Box 4358	Engineer:	Thom Maslowski
	Houston, TX 77210-4358	Lead Engineer:	Joven Refuerzo
Contact Person:	Clare Hoang		
Telephone:	(281)654 3819		
Application #(s):	S-1328-1-21; -2-22; -3-22		
Project #:	1103464		
Deemed Complete:	7/7/2010		

I. PROPOSAL

Exxon Mobil Corporation requests Authorities to Construct (ATC) permits for the modification of three 62.5 MMBtu/hr gas-fired steam generators (Permit Units S-1328-1; -2 and –3) at its Heavy Oil Western facility in Kern County. The applicant is proposing to add the following condition to each permit unit limiting the sulfur content of all fuels used to no more than 5 grains per 100 scf, for Rule 4320 compliance:

- Fuel burned in this unit shall be no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet. [District Rule 4320] N

These modifications are proposed solely to comply with District Rule 4320 requirements. Since there is not a change to the method of operation of the unit(s), these changes are not modifications pursuant to District Rule 2201, *New and Modified Stationary Source Review Rule*.

No increase in permitted emissions for any affected pollutant is proposed. The three generators and permit unit S-1328-7 (flare) are subject to an annual SLC limit. There are also no changes to the SLC limits.

Exxon Mobil Corporation received their Title V Permit on August 08, 2005. This modification can be classified as a Title V minor modification pursuant to Rule 2520, Section 3.20, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Exxon Mobil Corporation must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC(s) issued with this project.

See Appendix I: Current Permit To Operate (PTO)

II. APPLICABLE RULES

District Rule 2201	New and Modified Stationary Source Review Rule (12/18/08)
District Rule 2520	Federally Mandated Operating Permits (6/21/01)
District Rule 4001	New Source Performance Standards (4/14/99)
District Rule 4101	Visible Emissions (2/17/05)
District Rule 4102	Nuisance (12/17/92)
District Rule 4201	Particulate Matter Concentration (12/17/92)
District Rule 4301	Fuel Burning Equipment (12/17/92)
District Rule 4305	Boilers, Steam Generators and Process Heaters – Phase 2 (8/21/03)
District Rule 4306	Boilers, Steam Generators and Process Heaters – Phase 3 (10/16/08)
District Rule 4320	Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr (10/16/08)
District Rule 4351	Boilers, Steam Generators and Process Heaters – Phase 1 (8/21/03)
District Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

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

III. PROJECT LOCATION

This facility is located at Exxon's Heavy Oil Western Stationary Source at Section 19, T28S, R21E in Kern County. The facility is not located within 1,000 feet of the outer boundary of a K-12 school. In addition, there is no increase in emissions of any hazardous air pollutants; therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. PROCESS DESCRIPTION

Exxon Mobil operates natural gas-fired steam generators used for thermal enhanced oil recovery. Natural gas, usually produced from oil extraction or a blend of PUC quality and produced gas, is combusted in steam generators to produce steam for injection into heavy crude oil bearing strata to facilitate oil recovery.

The operating schedule is 24 hr/day, 7 days/week, and 52 weeks/year.

V. EQUIPMENT LISTING

Pre-Project Equipment Description:

S-1328-1-18: 62.5 MMBTU/HR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #64 WITH NORTH AMERICAN MAGNA FLAME GLE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE)

S-1328-2-19: 62.5 MMBTU/HR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #65 WITH NORTH AMERICAN MAGNA FLAME GLE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE)

S-1328-3-19: 62.5 MMBTU/HR NATURAL GAS/TEOR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #66 WITH NORTH AMERICAN MAGNA FLAME GLE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE)

ATC Equipment Description:

S-1328-1-21: MODIFICATION OF 62.5 MMBTU/HR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #64 WITH NORTH AMERICAN MAGNA FLAME GLE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE): ADD FUEL SULFUR CONTENT LIMIT OF FIVE (5) GRAINS PER ONE HUNDRED STANDARD CUBIC FEET FOR DISTRICT RULE 4320 COMPLIANCE

S-1328-2-22: MODIFICATION OF 62.5 MMBTU/HR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #65 WITH NORTH AMERICAN MAGNA FLAME GLE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE): ADD FUEL SULFUR CONTENT LIMIT OF FIVE (5) GRAINS PER ONE HUNDRED STANDARD CUBIC FEET FOR DISTRICT RULE 4320 COMPLIANCE

S-1328-3-22: MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/TEOR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #66 WITH NORTH AMERICAN MAGNA FLAME GLE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE): ADD FUEL SULFUR CONTENT LIMIT OF FIVE (5) GRAINS PER ONE HUNDRED STANDARD CUBIC FEET FOR DISTRICT RULE 4320 COMPLIANCE

Post Project Equipment Description:

S-1328-1-21: 62.5 MMBTU/HR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #64 WITH NORTH AMERICAN MAGNA FLAME G-LE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE)

S-1328-2-22: 62.5 MMBTU/HR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #65 WITH NORTH AMERICAN MAGNA FLAME G-LE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE)

S-1328-3-22: 62.5 MMBTU/HR NATURAL GAS/TEOR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #66 WITH NORTH AMERICAN MAGNA FLAME G-LE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE)

VI. EMISSION CONTROL TECHNOLOGY EVALUATION

The scope of this project does not incorporate new emission controls to the existing equipment. Emissions from the gas fired steam generators include NOx, CO, PM10, SOx and VOC. NOx emissions are controlled with the use of flue gas re-circulation (FGR) and low NOx burners.

VII. GENERAL CALCULATIONS

A. Assumptions

- The maximum operating schedule is 24 hours per day
- The units are fired on waste gas
- Annual pre-project and post-project potential to emit is calculated based on 8,760 hours of operation per year
- Waste Gas Heating Value: 500 Btu/scf (laboratory analysis)
- The Daily Emission Limit for S-1328-2, -2 & -3 where established in engineering evaluation S-1041377 and will only be included by reference.
- Emission from NOx, PM10, CO and VOC = (emission factor$_{startup/shutdown}$ x burner rating x hours of startup/shutdown) + = (emission factor$_{steadystate}$ x burner rating x hours at steady state) (Current SLC for annual emission)
- SOx emissions are determined by the following equation: SOx (as SO2) = (1.68 x 10E-7) x {(P1 x F1) + (P2 x F2)} = lb/day: P1 = ppmv H2S in sweet gas, P2 = ppmv H2S in noncondensible vapor gas, F1 = sweet gas (scf/day), and F2 = noncondensible vapor gas (scf/day) (Current SLC)

B. Emission Factors

Emission Factors					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
S-1328-1-17	0.018 lb/MMBtu	115 lb/day	0.005 lb/MMBtu	21.7 ppmv (@ 3% O_2)	0.003 lb/ MMBtu
S-1328-2-17	0.018 lb/MMBtu	115 lb/day	0.005 lb/MMBtu	21.7 ppmv (@ 3% O_2)	0.003 lb/ MMBtu
S-1328-3-18	0.018 lb/MMBtu	115 lb/day	0.005 lb/MMBtu	21.7 ppmv (@ 3% O_2)	0.003 lb/ MMBtu

For this unit, start-up and shutdown emission factors are listed in the following table:

Pollutant	Post-Project Start-Up and Shutdown Emission Factors	Source
NO_X	0.1 lb/MMBtu	AP-42, Table 1.4-2 (7/98)
SO_X	Not Applicable	
PM_{10}	Not Applicable	
CO	0.084 lb /MMBtu	AP-42, Table 1.4-2 (7/98)
VOC	Not Applicable	

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Daily PE1 for each unit S-1328-1, -2, -3 & -7 (see assumptions for equation)

NOx: 54 lb-NOx/day
SOx: 115 lb-SOx/day

PM10: 7.5 lb-PM10/day
CO: 24.0 lb-CO/day
VOC: 4.5 lb-VOC/day

Combined annual SLC for units S-1328-1, -2, -3 & -7 (see assumption for equation)

NOx: 25,733 lb-NOx/year
SOx: 41,975 lb-SOx/year
PM10: 7,154 lb-PM10/year
CO: 22,849 lb-CO/year
VOC: 4,271 lb –VOC/year

2. Post Project Potential to Emit (PE2)

Since there are no proposed modifications to the emission factors, throughput, or operating schedule, emissions will not change for NOx, CO, PM10 or VOC. The addition of the condition 6 on the draft ATCs which limits fuel burned to 5 grains sulfur per 100 scfm gas will affect the DEL for SOx (see equation below) but the annual SLC for SOx will remain unchanged. Compliance with both limits can be verified through condition 9 of the draft ATCs. Therefore, Post-Project Potential to Emit (PE2) is:

$PE2_{(NOx,\ CO,\ PM10,\ and\ VOC)} = PE2_{(NOx,\ CO,\ PM10,\ and\ VOC)}$

PE2 Daily SOx:

Emission Limit Calculation: 5 gr/100 dscf to lb/MMBtu

$$\frac{1\text{ grain}}{100\text{ dscf}} \times \frac{1\text{ lb}}{7000\text{ grain}} \times \frac{1\text{ scf}}{500\text{ Btu}} \times \frac{10^6\text{ Btu}}{1\text{ MMBtu}} \times \frac{2\text{ SOx}}{1\text{ S}}$$

$$= 0\ \text{lb/MMBtu} \times 5 = \boxed{0.028571429}$$

$$\frac{62.5\text{ MMBtu}}{1\text{ hour}} \times \frac{0.028571\text{ lb}}{1\text{ MMBtu}} \times \frac{24\text{ hours}}{1\text{ day}} = \boxed{42.9\text{ lb/day}}$$

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

Facility emissions calculations are necessary to determine:

- if the facility is a Major Source prior to this project (SSPE1 exceeding the Major Source thresholds)
- if SSPE1 is exceeding the offset thresholds
- Stationary Source Increase in Permitted Emissions (SSIPE)

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991

for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Detailed SSPE1 calculations can be found in project S-1063721.

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

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

There is no emission change associated with this project. Therefore Post-Project Stationary Source Potential to Emit (SSPE2) is:

SSPE2 = SSPE1

5. Major Source Determination

This source is an existing Major Source for NOx emissions and will remain a Major Source for NOx. However, no increase in emissions of NOx or any other criteria pollutants is expected as a result of this project.

6. Baseline Emissions (BE)

For modifications made solely to comply with a prohibitory rule, the annual BE is calculated, for each affected pollutant, to quantify the net emission change (PE2 – BE) that is exempt from offsets. Emission increases that are exempt from offsets are periodically reported to EPA. These quantities are used by EPA to determine the overall effectiveness of the Districts permitting program as compared to federal requirements.

Because any calculated increase in emissions due to compliance with prohibitory rules would typically be exempt from Federal New Source review there is no need to quantify the amount of emission increases that are exempt from offsets pursuant to Rule 2201.

Therefore, baseline emissions and offset quantities are not calculated.

7. SB 288 Major Modification:

The purpose of SB 288 Major Modification calculations is to determine the following;

If Best Available Control Technology (BACT) is triggered for a new or modified emission unit that results in a Major Modification (District Rule 2201, 4.1.3); and

If a public notification is triggered (District Rule 2201, 5.4.1)

The facility is a Major Source for NOx, therefore, only NOx need be addressed. Per the draft policy titled "Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/10) for SB 288 Major Modifications and Federal Major Modifications", an SB 288 Major Modification is triggered for NOx if the difference between the potential to emit and the actual emissions for all new and modified emission units is greater than 50.000 lb/year.

As shown in section VII.C.2 of this document, the potential to emit of the units currently under consideration is less than 50,000 lb/yr, therefore, the difference between the potential to emit and the actual emissions cannot exceed the SB 288 Major Modification threshold and an SB 288 Major Modification is not triggered.

8. Federal Major Modification:

The facility is a Major Source for only NOx, therefore, only NOx need be addressed. To determine whether a permitting action is a Federal Major Modification, Rule 2201 directs the reader to 40 CFR Part 51.165. In that section, a Federal Major Modification is defined as:

> A significant emissions increase of a regulated NSR pollutant (as defined in paragraph (a)(1)(xxxvii) <u>and</u>
>
> A significant net emissions increase of that pollutant from the major stationary source

The proposed modifications will not result in an increase in design capacity or an increase in potential to emit nor will it result in an increase in the current utilization rate. Therefore, Case 2 in the draft District policy titled "Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/10) for SB 288 Major Modifications and Federal Major Modifications" is applicable and clarifies what is meant by "emissions increase". The case states:

If the District determines that the proposed modification does not result in an increase in design capacity or potential to emit and the modification does not allow the emission unit, to operate at a utilization rate higher than it currently could, the emissions increase is presumed to be 0 and no further calculations are required to show the modification is not a Federal Major Modification. Therefore, this permitting action is not a Federal Major Modification.

VIII. COMPLIANCE

District Rule 2201 New and Modified Stationary Source Review Rule

District Rule 2201 applies to all new stationary sources and all modifications to existing stationary sources that are subject to the District permit requirements and after construction emit or may emit one or more affected pollutant. Pursuant to Section 3.25, Modification is an action including at least one of the following items:

- Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.
- Any structural change or addition to an existing emissions unit that would necessitate a change in permit conditions.
- 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 limit.
- Addition of any emissions unit that is subject to District permitting requirements.
- 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.

This project consists only of adding a condition to limit sulfur content of fuel to 5 grains per 100 scf for District Rule 4320. The current operation is already meeting the requirements of this condition as shown in Section VII above. Therefore, this project is not subject to the provisions of Rule 2201.

A. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

The DELs for the units are based on the use of process gas as a fuel and will be stated in the form of emission factors as shown (from Project S-1053054):

- Emission rates shall not exceed any of the following: SOx (as SO2): 42.9 lb/day, PM10: 0.005 lb/MMBtu, or VOC: 0.003 lb/MMBtu. [District NSR Rule and District Rules 4201, 3.1, 4301, 5.1 and 5.2, 4406 and 4801] Y

- SOx (as SO2) = (1.68 x 10E-7) x {(P1 x F1) + (P2 x F2)} = lb/day: P1 = ppmv H2S in sweet gas, P2 = ppmv H2S in noncondensible vapor gas, F1 = sweet gas (scf/day), and F2 = noncondensible vapor gas (scf/day). [District NSR Rule] Y

- Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmvd @ 3% O2, or CO: 0.016 lb/MMBtu or 21.7 ppmv @ 3% O2. [District NSR Rule and District Rules 4301, 4305, 5.1, 4306, 5.1 and 4320] Y

- During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Y

- Daily maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day or 24.0 lb-CO/day. [District NSR Rule] Y

B. Compliance Assurance

1. Source Testing

This unit is subject to District Rule 4305, *Boilers, Steam Generators and Process Heaters, Phase 2*, District Rule 4306, *Boilers, Steam Generators and Process Heaters, Phase 3, and District Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr* . Source testing requirements, in accordance with District Rules 4305, 4306, and 4320 will be discussed in Section VIII, District Rule4320 of this evaluation.

2. Monitoring

As required by *District Rule 4305, Boilers, Steam Generators and Process Heaters, Phase 2, District Rule 4306, Boilers, Steam Generators and Process Heaters, Phase 3, and District Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr*, this unit is subject to monitoring requirements. Monitoring requirements, in accordance with District Rules 4305, 4306, and 4320 will be discussed in Section VIII, District Rule 4320 of this evaluation.

3. Recordkeeping

As required by *District Rule 4305, Boilers, Steam Generators and Process Heaters, Phase 2, District Rule 4306, Boilers, Steam Generators and Process Heaters, Phase 3, and District Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr*, this unit is subject to recordkeeping requirements. Recordkeeping requirements, in accordance with District Rules 4305, 4306, and 4320 will be discussed in Section VIII, District Rule 4320 of this evaluation.

The following permit condition will be listed on permit as follows:

- {2983} All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

District Rule 2520 Federally Mandated Operating Permits

Exxon Mobile has a Title V permit. The changes authorized by this ATC constitute a minor modification of their Title V permit. The facility has requested that this ATC be issued with a Certificate of Conformity (COC). Therefore, prior to issuance, this ATC will undergo a 45 day EPA review. Prior to initial operation under this ATC, the applicant must submit a Title V application for an administrative amendment, and permit conditions will be listed as follows:

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule]
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4]

District Rule 4001 New Source Performance Standards

40 CFR Part 60, Subpart Dc applies to Small Industrial-Commercial-Industrial Steam Generators between 10 MMBtu/hr and 100 MMBtu/hr (post-6/9/89 construction, modification or, reconstruction).

40 CFR Part 60, Subpart A, section 14, defines the meaning of modification to which the the standards are applicable. §60.14, paragraph (e)(5) states that the following will not be considered as a modification: *"the addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or replaced by a system which the Administrator determines to be less environmentally beneficial"*.

No newly constructed or reconstructed units are proposed in this project, nor is the unit being modified (as defined above). Therefore, the requirements of these sections do not apply to the unit.

District Rule 4101 Visible Emissions

District Rule 4101, Section 5.0, indicates that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour, which is dark or darker than Ringlemann 1 or equivalent to 20% opacity.

A permit condition will be listed on the permit as follows:

- {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

Therefore, compliance with District Rule 4101 requirements is expected.

District Rule 4102 Nuisance

Section 4.0 prohibits discharge of air contaminants, which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

A permit condition will be listed on the permit as follows:

- {98} No air contaminant shall be released into the atmosphere, which causes a public nuisance. [District Rule 4102]

California Health & Safety Code 41700 (Health Risk Assessment)

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

Since the applicant is not proposing an increase in fuel usage with this project, a health risk assessment is not necessary and no further risk analysis is required.

District Rule 4201 Particulate Matter Concentration

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

F-Factor for NG:	8,578 dscf/MMBtu at 60 °F
PM10 Emission Factor:	0.005 lb-PM10/MMBtu
Percentage of PM as PM10 in Exhaust:	100%
Exhaust Oxygen (O_2) Concentration:	3%

Excess Air Correction to F Factor = $\frac{20.9}{(20.9 - 3)}$ = 1.17

$$GL = \left(\frac{0.005\ lb-PM}{MMBtu} \times \frac{7{,}000\ grain}{lb-PM}\right) / \left(\frac{8{,}578\ ft^3}{MMBtu} \times 1.17\right)$$

$$GL = 0.0048\ grain/dscf < 0.1\ grain/dscf$$

Therefore, compliance with District Rule 4201 requirements is expected and a permit condition will be listed on the permit as follows:

- {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

District Rule 4301 Fuel Burning Equipment

This rule specifies maximum emission rates in lb/hr for SO_2, NO_2, and combustion contaminants (defined as total PM in Rule 1020). This rule also limits combustion contaminants to ≤ 0.1 gr/scf. According to AP 42 (Table 1.4-2, footnote c), all PM emissions from natural gas combustion are less than 1 μm in diameter.

District Rule 4301 Limits			
Pollutant	**NO_2**	**Total PM**	**SO_2**
ATC #S-1328-1-20; -2-22, and –3-22 combined (lb/hr)	2.9	0.8	4.8
Rule Limit (lb/hr)	140	10	200

The above table indicates compliance with the maximum lb/hr emissions in this rule; therefore, continued compliance is expected.

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

Pursuant to District Rules 4305 and 4306, Section 6.3.1, the steam generators are not required to tune since they follow a District approved Alternate Monitoring scheme where the applicable emission limits are periodically monitored. Therefore, the units are not subject to this rule.

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

The units are natural gas-fired with a maximum heat input of 62.5 MMBtu/hr per unit. Pursuant to Section 2.0 of District Rule 4305, all three units are subject to District Rule 4305, *Boilers, Steam Generators and Process Heaters – Phase 2.*
In addition, the units are also subject to District Rule 4306, *Boilers, Steam Generators and Process Heaters – Phase 3.*

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

Conclusion

Therefore, compliance with District Rule 4305 requirements is expected and no further discussion is required.

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

The units are natural gas-fired with a maximum heat input of 62.5 MMBtu/hr per unit. Pursuant to Section 2.0 of District Rule 4306, the unit is subject to District Rule 4306.

Section 5.1, NO_X and CO Emissions Limits

Section 5.1.1 requires that except for units subject to Sections 5.2, NO_X and carbon monoxide (CO) emissions shall not exceed the limits specified in the following table. All ppmv emission limits specified in this section are referenced at dry stack gas conditions and 3.00 percent by volume stack gas oxygen. Emission concentrations shall be corrected to 3.00 percent oxygen in accordance with Section 8.1.

With a maximum heat input of 62.5 MMBtu/hr, the applicable emission limit category is listed in Section 5.1.1, Table 1, Category C, from District Rule 4306.

Rule 4306 Emissions Limits				
Category	Operated on gaseous fuel		Operated on liquid fuel	
	NO_X Limit	CO Limit	NO_X Limit	CO Limit
C. Oilfield Steam Generatorss	15 ppmv or 0.018 lb/MMBtu	400 ppmv	40 ppmv or 0.052 lb/MMBtu	400 ppmv

For all three units:

- the proposed NO_x emission factor is 15 ppmvd @ 3% O_2 (0.018 lb/MMBtu), and
- the proposed CO emission factor is 21.7 ppmvd @ 3% O_2 (0.016 lb/MMBtu).

Therefore, compliance with Section 5.1 of District Rule 4306 is expected.

A permit condition listing the emissions limits will be listed on permit as shown in the DEL section above.

Section 5.2, Low Use

Each unit's annual heat input will exceed the 9 billion Btu heat input per calendar year criteria limit addressed by this section. Since the units are not subject to Section 5.2, the requirements of this section do not apply to the units.

Section 5.3, Startup and Shutdown Provisions

Section 5.3 states that on and after the full compliance schedule specified in Section 7.1, the applicable emission limits of Sections 5.1, 5.2.2 and 5.2.3 shall not apply during start-up or shutdown provided an operator complies with the requirements specified in Sections 5.3.1 through 5.3.4.

According to boiler manufacturers, low NO_X burners will achieve their rated emissions within one to two minutes of initial startup and do not require a special shutdown procedure. Because of the short duration before achieving the rated emission factor following startup, the unit will be subject to the applicable emission limits of Sections 5.1, 5.2.2 and 5.2.3 while in operation.

Section 5.4, Monitoring Provisions

Section 5.4.2 requires that permit units subject to District Rule 4306, Section 5.1 emissions limits shall either install and maintain Continuous Emission Monitoring (CEM) equipment for NO_X, CO and O_2, or install and maintain APCO-approved alternate monitoring.

In order to satisfy the requirements of District Rule 4306, the applicant has proposed to use pre-approved alternate monitoring scheme A (pursuant to District Policy SSP-1105), which requires that monitoring of NO_X, CO, and O_2 exhaust concentrations shall be conducted at least once per month (in which a source test is not performed) using a portable analyzer. The following conditions will be incorporated into the permit in order to ensure compliance with the requirements of the proposed alternate monitoring plan:

- {2935} The permittee shall monitor and record the stack concentration of NO_X, CO, and O_2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] N

- {2936} If either the NO_X or CO concentrations corrected to 3% O_2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] N

- {2937} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] N

- {2938} The permittee shall maintain records of: (1) the date and time of NO_X, CO, and O_2 measurements, (2) the O_2 concentration in percent and the measured NO_X and CO concentrations corrected to 3% O_2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] N

Since the units are not subject to the requirements listed in Section 5.2.1 or 5.2.2, they are not subject to Section 5.4.3 requirements.

Since the units are not subject to the requirements of category H (maximum annual heat input between 9 billion and 30 billion Btu/year) listed in Section 5.1.1, they are not subject to Section 5.4.4 requirements.

Section 5.5, Compliance Determination

Section 5.5.1 requires that the operator of any unit shall have the option of complying with either the applicable heat input (lb/MMBtu) emission limits or the concentration (ppmv) emission limits specified in Section 5.1. The emission limits selected to demonstrate compliance shall be specified in the source test proposal pursuant to Rule 1081 (Source Sampling). Therefore, the following condition will be listed on the permit as follows:

- {2976} The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320]

Section 5.5.2 requires that all emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. Therefore, the following permit condition will be listed on the permit as follows:

- {2972} All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306 and 4320]

Section 5.5.4 requires that for emissions monitoring pursuant to Sections 5.4.2, 5.4.2.1, and 6.3.1 using a portable NO_X analyzer as part of an APCO approved Alternate Emissions Monitoring System, emission readings shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15-consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15-consecutive-minute period.

Therefore, the following permit condition will be listed on the permit as follows:

- {2937} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320]

Section 6.1, Recordkeeping

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.3 shall be maintained for five calendar years and shall be made available to the APCO upon request.

Failure to maintain records or information contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule.

A permit condition will be listed on the permit as follows:

- {2983} All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320]

Section 6.1.2 requires that the operator of a unit subject to Section 5.2 shall record the amount of fuel use at least on a monthly basis. Since the unit is not subject to the requirements listed in Section 5.2, it is not subject to Section 6.1.2 requirements.

Section 6.1.3 requires that the operator of a unit subject to Section 5.2.1 or 6.3.1 shall maintain records to verify that the required tune-up and the required monitoring of the operational characteristics have been performed. The unit is not subject to Section 6.1.3. Therefore, the requirements of this section do not apply to the unit.

Section 6.2, Test Methods

Section 6.2 identifies the following test methods as District-approved source testing methods for the pollutants listed:

Pollutant	Units	Test Method Required
NO_X	ppmv	EPA Method 7E or ARB Method 100
NO_X	lb/MMBtu	EPA Method 19
CO	ppmv	EPA Method 10 or ARB Method 100
Stack Gas O_2	%	EPA Method 3 or 3A, or ARB Method 100
Stack Gas Velocities	ft/min	EPA Method 2
Stack Gas Moisture Content	%	EPA Method 4

The following permit conditions will be listed on the permit as follows:

- {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]

- {2977} NO_X emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320]

- {2978} CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320]

- {2979} Stack gas oxygen (O_2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320]

Section 6.3, Compliance Testing

Section 6.3.1 requires that this unit be tested to determine compliance with the applicable requirements of section 5.1 and 5.2.3 not less than once every 12 months. Upon demonstrating compliance on two consecutive compliance source tests, the following source test may be deferred for up to thirty-six months.

The following permit conditions will be listed on the permit as follows:

- {3467} Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320]
- {3466} Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320]
- {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

In addition, since the applicant has proposed to use pre-approved Alternate Monitoring Scheme "A" using a portable analyzer, the tune-up requirements listed in Section 6.3.1 are not applicable to the steam generators. Section 6.3.1 also requires that, during the 36-month source testing interval, the owner/operator shall monthly monitor the operational characteristics recommended by the unit manufacturer. Since the pre-approved Alternate Monitoring Scheme "A" using a portable analyzer requires monthly monitoring of NO_X, CO, and O_2 exhaust emissions concentrations, operational characteristics monitoring requirement is satisfied, and no further discussion is required.

Section 6.4, Emission Control Plan (ECP)

Section 6.4.1 requires that the operator of any unit shall submit to the APCO for approval an Emissions Control Plan according to the compliance schedule in Section 7.0 of District Rule 4306.

The proposed modified units will be in compliance with the emissions limits listed in table 1, Section 5.1 of this rule and with periodic monitoring and source testing requirements. Therefore, this current application for the new proposed unit satisfies the requirements of the Emission Control Plan, as listed in Section 6.4 of District Rule 4306. No further discussion is required.

Section 7.0, Compliance Schedule

Section 7.0 indicates that an operator with multiple units at a stationary source shall comply with this rule in accordance with the schedule specified in Table 2, Section 7.1 of District Rule 4306.

The units will be in compliance with the emissions limits listed in table 1, Section 5.1 of this rule, and periodic monitoring and source testing as required by District Rule 4306. Therefore, requirements of the compliance schedule, as listed in Section 7.1 of District Rule 4306, are satisfied. No further discussion is required.

Conclusion

Conditions will be incorporated into the permit in order to ensure compliance with each section of this rule, see attached draft permit(s). Therefore, compliance with District Rule 4306 requirements is expected.

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

Exxon Mobile has elected to follow section 5.1.2 and pay an annual emission fee to the District as specified in Section 5.3 and comply with the control requirements specified in Section 5.4.

Section 5.4 Particulate Matter Control Requirements

Section 5.4 of the rule requires one of four options for control of particulate matter: 1) combustion of PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases, 2) limit fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic, 3) install and properly operate an emission control system that reduces SO_2 emissions by at least 95% by weight; or limit exhaust SO_2 to less than or equal to 9 ppmv corrected to 3.0% O2 or 4) refinery units, which require modification of refinery equipment to reduce sulfur emissions, shall be in compliance with the applicable requirement in Section 5.4.1 no later than July 1, 2013.

Exxon Mobile has proposed to use option 2 and the following condition will be added to the ATC to show compliance:

- Fuel burned in this unit shall be no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet. [District Rule 4320]

Section 5.6, Startup and Shutdown Provisions

Applicable emissions limits are not required during startup and shutdown provided The duration of each start-up or each shutdown shall not exceed two hours, the emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown or operator has submitted an application for a Permit to Operate condition to allow more than two hours for each start-up or each shutdown provided the operator meets all of the conditions specified in Sections 5.6.3.1 through 5.6.3.3.

Applicant has not requested startup and shutdown provisions.

Section 5.7, Monitoring Provisions

Section 5.7 requires either use of a APCO approved Continuous Emissions Monitoring System (CEMS) for NOx, CO, and oxygen, or implementation of an APCO-approved Alternate Monitoring System.

In order to satisfy the requirements of District Rule 4320, the applicant has proposed to use pre-approved alternate monitoring scheme A (pursuant to District Policy SSP-1105), which requires that monitoring of NO_X, CO, and O_2 exhaust concentrations shall be conducted at least once per month (in which a source test is not performed) using a portable analyzer. The following conditions will be incorporated into the permit in order to ensure compliance with the requirements of the proposed alternate monitoring plan:

- {4063} The permittee shall monitor and record the stack concentration of NO_X, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320]

- {4064} If either the NO_X or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320]

- {4065} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320]

- {4066} The permittee shall maintain records of: (1) the date and time of NO_X, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas

analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320]

5.7.6 Monitoring SOx Emissions

Section 5.7.6.1 Operators complying with Sections 5.4.1.1 or 5.4.1.2 shall provide an annual fuel analysis to the District unless a more frequent sampling and reporting period is included in the Permit To Operate. Sulfur analysis shall be performed in accordance with the test methods in Section 6.2. The following condition demonstrates compliance with this section:

- The permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] N

Section 5.8, Compliance Determination

The unit currently operates in compliance with the Compliance Determination requirements of Section 5.8. No proposed changes to these requirements are proposed.

Section 6.1 Recordkeeping

No proposed changes to recordkeeping requirements are proposed.

Section 6.2 Test Methods

No proposed changes to test methods are proposed.

Section 6.3 Compliance Testing

Section 6.3.1 requires that this unit be tested to determine compliance with the applicable requirements of section 5.2 not less than once every 12 months (no more than 30 days before or after the required annual source test date). Upon demonstrating compliance on two consecutive compliance source tests, the following source test may be deferred for up to thirty-six months.

Section 6.3.1.1 Units that demonstrate compliance on two consecutive 12-month source tests may defer the following 12-month source test for up to 36 months (no more than 30 days before or after the required 36-month source test date). During the 36-month source testing interval, the operator shall tune the unit in accordance with the provisions of Section 5.5.1, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer to ensure compliance with the applicable emission limits specified in Section 5.2.

Section 6.3.1.2 Tune-ups required by Sections 5.5.1 and 6.3.1 do not need to be performed for units that operate and maintain an APCO approved CEMS or an APCO approved Alternate Monitoring System where the applicable emission limits are periodically monitored.

Conclusion

Conditions will be incorporated into the permit in order to ensure compliance with each section of this rule, see attached draft permit(s). Therefore, compliance with District Rule 4320 requirements is expected.

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

This rule applies to boilers, steam generators, and process heaters at NO_x Major Sources that are located east of Interstate 5 in Fresno, Kings, or Kern counties. If applicable, the emission limits, monitoring provisions, and testing requirements of this rule are satisfied when the unit is operated in compliance with Rule 4306. This facility is located west of Interstate 5, therefore the provisions of this rule are not applicable.

District Rule 4801 Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO_2, on a dry basis averaged over 15 consecutive minutes.

Per District Rule 4320 the fuel used is limited to 5 grains per 100 dscf. The equation below converts 5 grains per 100 dscf to ppm.

Using the ideal gas equation and the emission factors presented in Section VII, the sulfur compound emissions are calculated as follows:

Molecular Weight = 34 lb/lb-mole
Molar Volume = 379 scf/lb-mole (@ 60 def F, 14.7 psia)
Weight conversion = 7000 gr/lb

$$\frac{5\,gr-SOx}{100dscf}\times\frac{lb}{7000gr}\times\frac{1lb\cdot mol}{34\,lb}\times\frac{lb-mole}{379dscf}\times\frac{1{,}000{,}000\cdot parts}{million}=79.6\frac{parts}{million}$$

$$SulfurConcentration = 79.6\frac{parts}{million} < 2{,}000 \text{ ppmv (or 0.2\%)}$$

Therefore, compliance with District Rule 4801 requirements is expected.

California Health & Safety Codea 42301.6 (School Notice)

There is no increase in emissions of any hazardous air pollutants as a result of this project. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA

Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

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

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

The District's engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions, since there is no change in fuel usage or emission factors. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15031 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. RECOMMENDATION

Compliance with all applicable rules and regulations is expected. Issue Authorities to Construct S-1328-1-21; -2-22; and –3-22 subject to the permit conditions on the attached draft Authority to Construct in Appendix II.

See *Appendix II: Draft Authorities to Construct*

X. BILLING INFORMATION

Annual Permit Fees			
Permit Number	**Fee Schedule**	**Fee Description**	**Annual Fee**
S-1328-1-21	3020-02-H	62,500 kBtu/hr	$1030.00
S-1328-2-22	3020-02-H	62,500 kBtu/hr	$1030.00
S-1328-3-22	3020-02-H	62,500 kBtu/hr	$1030.00

APPENDICES

Appendix I: Current Permits To Operate (PTO)
Appendix II: Draft Authorities to Construct (ATC)
Appendix III: Certificate of Conformity

APPENDIX I

Current Permits To Operate

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1328-1-18 **EXPIRATION DATE:** 03/31/2010

SECTION: NE19 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #64 WITH NORTH AMERICAN MAGNA FLAME GLE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE)

PERMIT UNIT REQUIREMENTS

1. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]
2. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
3. On and after 7/1/2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320]
4. If steam generator is inoperative, non-condensible vapors shall not vent to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed any of the following: SOx (as SO2): 115.0 lb/day, PM10: 0.005 lb/MMBtu, or VOC: 0.003 lb/MMBtu. [District NSR Rule and District Rules 4201, 3.1, 4301, 5.1 and 5.2, 4406 and 4801] Federally Enforceable Through Title V Permit
6. SOx (as SO2) = (1.68 x 10E-7) x {(P1 x F1) + (P2 x F2)} = lb/day: P1 = ppmv H2S in sweet gas, P2 = ppmv H2S in noncondensible vapor gas, F1 = sweet gas (scf/day), and F2 = noncondensible vapor gas (scf/day). [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmvd @ 3% O2, or CO: 0.016 lb/MMBtu or 21.7 ppmv @ 3% O2. [District NSR Rule and District Rules 4301, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit
8. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Daily maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day or 24.0 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Start-up is defined as that 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 operation. Shutdown is defined as that 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 4306, 3.22, 3.25] Federally Enforceable Through Title V Permit

11. The duration of each start-up or each shutdown shall not exceed two hours per occurrence. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown. The operator shall maintain daily records of the number and duration of start-up and shutdown periods. [District Rule 4306, 5.3] Federally Enforceable Through Title V Permit

12. For this emission unit the overall throttle and use factor used in the SLC plan is 87%. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Combined annual combustion emissions from permit units S-1328-1, '-2, '-3 and the flare identified on permit unit S-1328-7 shall not exceed any of the following: NOx (as NO2): 25,733 lb/yr, SOx (as SO2): 41,975 lb/yr, PM10: 7,154 lb/yr, CO: 22,849 lb/yr, or VOC: 4,271 lb/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Permittee shall sample sweet and noncondensible vapor gas monthly for H2S concentration and shall maintain daily records of sweet & noncondensible vapor gas flowrate (scfd). [District NSR Rule] Federally Enforceable Through Title V Permit

15. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District NSR Rule] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit

17. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District NSR Rule] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

24. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306, 6.3] Federally Enforceable Through Title V Permit

25. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, 6.2; and 4351] Federally Enforceable Through Title V Permit

28. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2; 4305, 6.2.1; 4306, 6.2.1] Federally Enforceable Through Title V Permit

29. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit

30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

31. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

32. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1328-2-19 **EXPIRATION DATE:** 03/31/2010

SECTION: NE19 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #65 WITH NORTH AMERICAN MAGNA FLAME GLE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE)

PERMIT UNIT REQUIREMENTS

1. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]
2. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
3. On and after 7/1/2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320]
4. If steam generator is inoperative, non-condensible vapors shall not vent to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed any of the following: SOx (as SO2): 115.0 lb/day, PM10: 0.005 lb/MMBtu, or VOC: 0.003 lb/MMBtu. [District NSR Rule and District Rules 4201, 3.1, 4301, 5.1 and 5.2, 4406 and 4801] Federally Enforceable Through Title V Permit
6. SOx (as SO2) = (1.68 x 10E-7) x {(P1 x F1) + (P2 x F2)} = lb/day: P1 = ppmv H2S in sweet gas, P2 = ppmv H2S in noncondensible vapor gas, F1 = sweet gas (scf/day), and F2 = noncondensible vapor gas (scf/day). [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmvd @ 3% O2, or CO: 0.016 lb/MMBtu or 21.7 ppmv @ 3% O2. [District NSR Rule and District Rules 4301, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit
8. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Daily maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day or 24.0 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Start-up is defined as that 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 operation. Shutdown is defined as that 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 4306, 3.22, 3.25] Federally Enforceable Through Title V Permit

11. The duration of each start-up or each shutdown shall not exceed two hours per occurrence. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown. The operator shall maintain daily records of the number and duration of start-up and shutdown periods. [District Rule 4306, 5.3] Federally Enforceable Through Title V Permit

12. For this emission unit the overall throttle and use factor used in the SLC plan is 87%. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Combined annual combustion emissions from permit units S-1328-1, '-2, '-3 and the flare identified on permit unit S-1328-7 shall not exceed any of the following: NOx (as NO2): 25,733 lb/yr, SOx (as SO2): 41,975 lb/yr, PM10: 7,154 lb/yr, CO: 22,849 lb/yr, or VOC: 4,271 lb/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Permittee shall sample sweet and noncondensible vapor gas monthly for H2S concentration and shall maintain daily records of sweet & noncondensible vapor gas flowrate (scfd). [District NSR Rule] Federally Enforceable Through Title V Permit

15. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District NSR Rule] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit

17. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District NSR Rule] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

24. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306, 6.3] Federally Enforceable Through Title V Permit

25. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, 6.2; and 4351] Federally Enforceable Through Title V Permit

28. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2; 4305, 6.2.1; 4306, 6.2.1] Federally Enforceable Through Title V Permit

29. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit

30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

31. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

32. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1328-3-19 **EXPIRATION DATE:** 03/31/2010

SECTION: NE19 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/TEOR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #66 WITH NORTH AMERICAN MAGNA FLAME GLE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE)

PERMIT UNIT REQUIREMENTS

1. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]
2. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
3. On and after 7/1/2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320]
4. If steam generator is inoperative, non-condensible vapors shall not vent to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed any of the following: SOx (as SO2): 115.0 lb/day, PM10: 0.005 lb/MMBtu, or VOC: 0.003 lb/MMBtu. [District NSR Rule and District Rules 4201, 3.1, 4301, 5.1 and 5.2, 4406 and 4801] Federally Enforceable Through Title V Permit
6. SOx (as SO2) = (1.68 x 10E-7) x {(P1 x F1) + (P2 x F2)} = lb/day: P1 = ppmv H2S in sweet gas, P2 = ppmv H2S in noncondensible vapor gas, F1 = sweet gas (scf/day), and F2 = noncondensible vapor gas (scf/day). [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmvd @ 3% O2, or CO: 0.016 lb/MMBtu or 21.7 ppmv @ 3% O2. [District NSR Rule and District Rules 4301, 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit
8. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Daily maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day or 24.0 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Start-up is defined as that 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 operation. Shutdown is defined as that 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 4306, 3.22, 3.25] Federally Enforceable Through Title V Permit

11. The duration of each start-up or each shutdown shall not exceed two hours per occurrence. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown. The operator shall maintain daily records of the number and duration of start-up and shutdown periods. [District Rule 4306, 5.3] Federally Enforceable Through Title V Permit

12. For this emission unit the overall throttle and use factor used in the SLC plan is 87%. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Combined annual combustion emissions from permit units S-1328-1, '-2, '-3 and the flare identified on permit unit S-1328-7 shall not exceed any of the following: NOx (as NO2): 25,733 lb/yr, SOx (as SO2): 41,975 lb/yr, PM10: 7,154 lb/yr, CO: 22,849 lb/yr, or VOC: 4,271 lb/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Permittee shall sample sweet and noncondensible vapor gas monthly for H2S concentration and shall maintain daily records of sweet & noncondensible vapor gas flowrate (scfd). [District NSR Rule] Federally Enforceable Through Title V Permit

15. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District NSR Rule] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit

17. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District NSR Rule] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

24. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306, 6.3] Federally Enforceable Through Title V Permit

25. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, 6.2; and 4351] Federally Enforceable Through Title V Permit

28. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2; 4305, 6.2.1; 4306, 6.2.1] Federally Enforceable Through Title V Permit

29. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit

30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

31. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

32. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit

APPENDIX II

Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-1328-1-21 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: EXXON MOBIL CORPORATION
MAILING ADDRESS: CORP-MI-3049
P O BOX 4358
HOUSTON, TX 77210-4358

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: NE19 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #64 WITH NORTH AMERICAN MAGNA FLAME GLE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE): ADD FUEL SULFUR CONTENT LIMIT OF FIVE (5) GRAINS PER ONE HUNDRED STANDARD CUBIC FEET FOR DISTRICT RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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DAVID WARNER, Director of Permit Services
S-1328-1-21 : Oct 26 2011 9:16AM -- MASLOWST : Joint Inspection NOT Required

5. On and after 7/1/2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit

6. Fuel burned in this unit shall be no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet. [District Rule 4320]

7. If steam generator is inoperative, non-condensible vapors shall not vent to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

8. Emission rates shall not exceed any of the following: SOx (as SO2): 42.9 lb/day, PM10: 0.005 lb/MMBtu, or VOC: 0.003 lb/MMBtu. [District NSR Rule and District Rules 4201, 3.1, 4301, 5.1 and 5.2, 4406 and 4801] Federally Enforceable Through Title V Permit

9. SOx (as SO2) = (1.68 x 10E-7) x {(P1 x F1) + (P2 x F2)} = lb/day: P1 = ppmv H2S in sweet gas, P2 = ppmv H2S in noncondensible vapor gas, F1 = sweet gas (scf/day), and F2 = noncondensible vapor gas (scf/day). [District NSR Rule] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmvd @ 3% O2, or CO: 0.016 lb/MMBtu or 21.7 ppmv @ 3% O2. [District NSR Rule and District Rules 4301, 4305, 5.1, 4306, 5.1 and 4320] Federally Enforceable Through Title V Permit

11. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Daily maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day or 24.0 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Start-up is defined as that 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 operation. Shutdown is defined as that 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 Rules 4306, 3.22, 3.25 and 4320] Federally Enforceable Through Title V Permit

14. The duration of each start-up or each shutdown shall not exceed two hours per occurrence. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown. The operator shall maintain daily records of the number and duration of start-up and shutdown periods. [District Rules 4306, 5.3 and 4320] Federally Enforceable Through Title V Permit

15. For this emission unit the overall throttle and use factor used in the SLC plan is 87%. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Combined annual combustion emissions from permit units S-1328-1, '-2, '-3 and the flare identified on permit unit S-1328-7 shall not exceed any of the following: NOx (as NO2): 25,733 lb/yr, SOx (as SO2): 41,975 lb/yr, PM10: 7,154 lb/yr, CO: 22,849 lb/yr, or VOC: 4,271 lb/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

17. Permittee shall sample sweet and noncondensible vapor gas monthly for H2S concentration and shall maintain daily records of sweet & noncondensible vapor gas flowrate (scfd). [District NSR Rule] Federally Enforceable Through Title V Permit

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District NSR Rule] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District NSR Rule] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 ,4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

22. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320] Federally Enforceable Through Title V Permit

27. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, 6.3 and 4320] Federally Enforceable Through Title V Permit

28. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1 and 4320] Federally Enforceable Through Title V Permit

29. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, 6.2, and 4320] Federally Enforceable Through Title V Permit

31. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2; 4305, 6.2.1; 4306, 6.2.1 and 4320] Federally Enforceable Through Title V Permit

32. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit

33. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

34. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 4305, 6.1; 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-1328-2-22 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: EXXON MOBIL CORPORATION
MAILING ADDRESS: CORP-MI-3049
P O BOX 4358
HOUSTON, TX 77210-4358

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: NE19 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #65 WITH NORTH AMERICAN MAGNA FLAME GLE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE): ADD FUEL SULFUR CONTENT LIMIT OF FIVE (5) GRAINS PER ONE HUNDRED STANDARD CUBIC FEET FOR DISTRICT RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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DAVID WARNER, Director of Permit Services
S-1328-2-22 : Oct 26 2011 9:16AM – MASLOWST : Joint Inspection NOT Required

5. On and after 7/1/2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit

6. Fuel burned in this unit shall be no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet. [District Rule 4320]

7. If steam generator is inoperative, non-condensible vapors shall not vent to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

8. Emission rates shall not exceed any of the following: SOx (as SO2): 42.9 lb/day, PM10: 0.005 lb/MMBtu, or VOC: 0.003 lb/MMBtu. [District NSR Rule and District Rules 4201, 3.1, 4301, 5.1 and 5.2, 4406 and 4801] Federally Enforceable Through Title V Permit

9. SOx (as SO2) = (1.68 x 10E-7) x {(P1 x F1) + (P2 x F2)} = lb/day: P1 = ppmv H2S in sweet gas, P2 = ppmv H2S in noncondensible vapor gas, F1 = sweet gas (scf/day), and F2 = noncondensible vapor gas (scf/day). [District NSR Rule] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmvd @ 3% O2, or CO: 0.016 lb/MMBtu or 21.7 ppmv @ 3% O2. [District NSR Rule and District Rules 4301, 4305, 5.1, 4306, 5.1 and 4320] Federally Enforceable Through Title V Permit

11. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Daily maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day or 24.0 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Start-up is defined as that 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 operation. Shutdown is defined as that 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 Rules 4306, 3.22, 3.25 and 4320] Federally Enforceable Through Title V Permit

14. The duration of each start-up or each shutdown shall not exceed two hours per occurrence. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown. The operator shall maintain daily records of the number and duration of start-up and shutdown periods. [District Rules 4306, 5.3 and 4320] Federally Enforceable Through Title V Permit

15. For this emission unit the overall throttle and use factor used in the SLC plan is 87%. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Combined annual combustion emissions from permit units S-1328-1, '-2, '-3 and the flare identified on permit unit S-1328-7 shall not exceed any of the following: NOx (as NO2): 25,733 lb/yr, SOx (as SO2): 41,975 lb/yr, PM10: 7,154 lb/yr, CO: 22,849 lb/yr, or VOC: 4,271 lb/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

17. Permittee shall sample sweet and noncondensible vapor gas monthly for H2S concentration and shall maintain daily records of sweet & noncondensible vapor gas flowrate (scfd). [District NSR Rule] Federally Enforceable Through Title V Permit

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District NSR Rule] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District NSR Rule] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

22. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320] Federally Enforceable Through Title V Permit

27. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, 6.3 and 4320] Federally Enforceable Through Title V Permit

28. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1 and 4320] Federally Enforceable Through Title V Permit

29. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, 6.2, and 4320] Federally Enforceable Through Title V Permit

31. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2; 4305, 6.2.1; 4306, 6.2.1 and 4320] Federally Enforceable Through Title V Permit

32. Source testing shall be District witnessed or authorized and conducted by an ARB certified testing contractor. [District Rule 1081] Federally Enforceable Through Title V Permit

33. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

34. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070; 4305, 6.1; 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-1328-3-22 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: EXXON MOBIL CORPORATION
MAILING ADDRESS: CORP-MI-3049
P O BOX 4358
HOUSTON, TX 77210-4358

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: NE19 **TOWNSHIP:** 28S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/TEOR GAS-FIRED STRUTHERS STEAM GENERATOR UNIT #66 WITH NORTH AMERICAN MAGNA FLAME GLE NOX BURNER, FGR AND O2 CONTROLLER (HILL LEASE): ADD FUEL SULFUR CONTENT LIMIT OF FIVE (5) GRAINS PER ONE HUNDRED STANDARD CUBIC FEET FOR DISTRICT RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
4. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director/ APCO

DRAFT

DAVID WARNER, Director of Permit Services
S-1328-3-22 : Oct 26 2011 9:16AM -- MASLOWST : Joint Inspection NOT Required

5. On and after 7/1/2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit

6. Fuel burned in this unit shall be no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet. [District Rule 4320]

7. If steam generator is inoperative, non-condensible vapors shall not vent to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

8. Emission rates shall not exceed any of the following: SOx (as SO2): 42.9 lb/day, PM10: 0.005 lb/MMBtu, or VOC: 0.003 lb/MMBtu. [District NSR Rule and District Rules 4201, 3.1, 4301, 5.1 and 5.2, 4406 and 4801] Federally Enforceable Through Title V Permit

9. SOx (as SO2) = (1.68 x 10E-7) x {(P1 x F1) + (P2 x F2)} = lb/day: P1 = ppmv H2S in sweet gas, P2 = ppmv H2S in noncondensible vapor gas, F1 = sweet gas (scf/day), and F2 = noncondensible vapor gas (scf/day). [District NSR Rule] Federally Enforceable Through Title V Permit

10. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmvd @ 3% O2, or CO: 0.016 lb/MMBtu or 21.7 ppmv @ 3% O2. [District NSR Rule and District Rules 4301, 4305, 5.1, 4306, 5.1 and 4320] Federally Enforceable Through Title V Permit

11. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Daily maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day or 24.0 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Start-up is defined as that 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 operation. Shutdown is defined as that 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 Rules 4306, 3.22, 3.25 and 4320] Federally Enforceable Through Title V Permit

14. The duration of each start-up or each shutdown shall not exceed two hours per occurrence. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown. The operator shall maintain daily records of the number and duration of start-up and shutdown periods. [District Rules 4306, 5.3 and 4320] Federally Enforceable Through Title V Permit

15. For this emission unit the overall throttle and use factor used in the SLC plan is 87%. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Combined annual combustion emissions from permit units S-1328-1, '-2, '-3 and the flare identified on permit unit S-1328-7 shall not exceed any of the following: NOx (as NO2): 25,733 lb/yr, SOx (as SO2): 41,975 lb/yr, PM10: 7,154 lb/yr, CO: 22,849 lb/yr, or VOC: 4,271 lb/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

17. Permittee shall sample sweet and noncondensible vapor gas monthly for H2S concentration and shall maintain daily records of sweet & noncondensible vapor gas flowrate (scfd). [District NSR Rule] Federally Enforceable Through Title V Permit

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District NSR Rule] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District NSR Rule] Federally Enforceable Through Title V Permit

21. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

22. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

23. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320] Federally Enforceable Through Title V Permit

27. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, 6.3 and 4320] Federally Enforceable Through Title V Permit

28. The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1 and 4320] Federally Enforceable Through Title V Permit

29. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE