



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

SEP 16 2013



HEALTHY AIR LIVING™

Mr. John Haley
Aera Energy, LLC
PO Box 11164
Bakersfield, CA 93389

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-1547
Project # 1133398**

Dear Mr. Haley:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. Aera Energy, LLC (Aera) has requested Authority to Construct (ATC) permits to authorize steam generators S-1547-811 and '831 to operate at an additional location and to remove redundant conditions.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authority to Construct with a Certificate of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authority 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. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

DW:DT/st

Enclosures

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

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

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

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

Newspaper notice for publication in Bakersfield Californian and for posting on valleyair.org

**NOTICE OF PRELIMINARY DECISION
FOR THE ISSUANCE OF AUTHORITY TO CONSTRUCT AND
THE PROPOSED SIGNIFICANT MODIFICATION OF FEDERALLY
MANDATED OPERATING PERMIT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed significant modification of Aera Energy, LLC at the Maxwell property in the NE quarter of Section 27, T31S, R22E in the Midway Sunset oil field, California. Aera Energy, LLC (Aera) has requested Authority to Construct (ATC) permits to authorize steam generators S-1547-811 and '831 to operate at the above location and to remove redundant conditions.

The District's analysis of the legal and factual basis for this proposed action, project #1133398, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and at any District office. There are no emission increases associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the modification. If requested, the District will hold a public hearing regarding issuance of this modification. For additional information, please contact the District at (661) 392-5500. Written comments on the proposed initial permit must be submitted by October 21, 2013 to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**

San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Transfer of Location of Steam Generator

Facility Name:	Aera Energy, LLC	Date:	8/23/13
Mailing Address:	PQ Box 11164 Bakersfield, CA 93389	Engineer:	David Torii
Contact Person:	John Haley	Lead Engineer:	Rich Karrs
Telephone:	661-665-7424		
Application #(s):	S-1547-811-16 and '831-17		
Project #:	1133398		
Deemed Complete:	8/20/13		

I. Proposal

Aera Energy, LLC (Aera) has requested Authority to Construct (ATC) permits to authorize steam generators S-1547-811 and '831 to operate at an additional location (see proposed location section III below).

Unrelated to the above proposal, Aera requests deletion of various conditions as discussed in Appendix A. The conditions consist mainly of redundant and outdated PSD (Rule 2410) requirements that are no longer necessary. Removal of the conditions will not result in a physical change or a change in the method of operation; therefore, their removal does not constitute an NSR or PSD modification.

Current PTOs S-1547-811-11 and '831-12 will serve as the base documents and are included in Appendix B.

Aera received their Title V Permit on 1/31/03. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Aera must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (adopted 6/16/2011, effective 12/26/12)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)

- Rule 4305 Boilers, Steam Generators and Process Heaters – Phase II (8/21/03)
- Rule 4306 Boilers, Steam Generators and Process Heaters – Phase III (3/17/05)
- Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr (10/16/08)
- 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

	Current Location	Proposed Location
S-1547-811	Moco SE35/T12N/R24W	Maxwell NE27/T31S/R22E
S-1547-831	Moco SE35/T12N/R24W	Maxwell NE27/T31S/R22E

The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

In thermally enhanced oil recovery (TEOR) operations, steam generators produce steam for injection into heavy crude oil bearing strata via injection wells to reduce the viscosity of the crude oil, thereby facilitating thermally enhanced oil production.

V. Equipment Listing

Pre-Project Equipment Description (see PTOs in Appendix B:

- S-1547-811-11: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER, FLUE GAS RECIRCULATION, AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM (MOCO #808) (SOUTH MIDWAY)
- S-1547-831-12: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN LOW-NOX BURNER, FLUE GAS RECIRCULATION AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM, (MOCO #809) (SOUTH MIDWAY)

Proposed Modification:

- S-1547-811-16: MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER, FLUE GAS RECIRCULATION, AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM (MOCO

#808) (SOUTH MIDWAY): AND REVISE/REMOVE VARIOUS CONDITIONS

S-1547-831-17: MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN LOW-NOX BURNER, FLUE GAS RECIRCULATION AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM, (MOCO #809) (SOUTH MIDWAY): AND REVISE/REMOVE VARIOUS CONDITIONS

Post Project Equipment Description:

S-1547-811-xx: MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER, FLUE GAS RECIRCULATION, AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM (MAXWELL #5) (SOUTH MIDWAY)

S-1547-831-xx: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN LOW-NOX BURNER, FLUE GAS RECIRCULATION AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM, (MAXWELL #6) (SOUTH MIDWAY)

VI. Emission Control Technology Evaluation

Emissions from natural gas-fired steam generators include NO_x, CO, VOC, PM₁₀, and SO_x.

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

The use of flue gas re-circulation (FGR) can reduce nitrogen oxides (NO_x) emissions by 60% to 70%. In an FGR system, a portion of the flue gas is re-circulated back to the inlet air. As flue gas is composed mainly of nitrogen and the products of combustion, it is much lower in oxygen than the inlet air and contains virtually no combustible hydrocarbons to burn. Thus, flue gas is practically inert. The addition of an inert mass of gas to the combustion reaction serves to absorb heat without producing heat, thereby lowering the flame temperature. Since thermal NO_x is formed by high flame temperatures, the lower flame temperatures produced by FGR serve to reduce thermal NO_x.

VII. General Calculations

A. Assumptions

As shown below in section VIII, this project is not an NSR modification; therefore, calculations are not required.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

This rule shall apply to all new stationary sources and all modifications to existing stationary sources which are subject to the District permit requirements and after construction emit or may emit one or more affected pollutant.

Pursuant to section 3.25.1, a modification is an action including at least one of the following items:

3.25.1.1 Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.

3.25.1.2 Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.

3.25.1.3 An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.

3.25.1.4 Addition of any new emissions unit which is subject to District permitting requirements.

3.25.1.5 A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

- The proposed revisions are not a Rule 2201 modification and the stationary source is not new; therefore, this rule does not apply.

Rule 2410 – Prevention of Significant Deterioration (PSD)

1. Rule 2410 Major Source Determination

The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)							
	NO2	VOC	SO2	CO	PM	PM10	CO2e
Estimated Facility PE before Project Increase	NA	NA	NA	NA	NA	NA	>100,000
PSD Major Source Thresholds	100	100	100	100	100	100	100,000
PSD Major Source ? (Y/N)	NA	NA	NA	NA	NA	NA	y

As shown above, the facility is an existing major source for PSD for at least one pollutant. Therefore the facility is an existing major source for PSD.

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

Rule 2410 applies to pollutants for which the District is in attainment or for unclassified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM
- PM₁₀
- Greenhouse gases (GHG): CO₂, N₂O, CH₄, HFCs, PFCs, and SF₆

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not (See Section VII.C.5 of this document).

In the case the facility is an existing PSD Major Source, the second step of the PSD evaluation is to determine if the project results in a PSD significant increase.

In the case the facility is NOT an existing PSD Major Source but is an existing source, the second step of the PSD evaluation is to determine if the project, by itself, would be a PSD major source.

In the case the facility is new source, the second step of the PSD evaluation is to determine if this new facility will become a new PSD major Source as a result of the project and if so, to determine which pollutant will result in a PSD significant increase.

I. Project Location Relative to Class 1 Area

As demonstrated in the "PSD Major Source Determination" Section above, the facility was determined to be a existing major source for PSD. Because the project is not located within 10 km of a Class 1 area – modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

II. Significance of Project Emission Increase Determination

a. Potential to Emit of attainment/unclassified pollutant for New or Modified Emission Units vs PSD Significant Emission Increase Thresholds

As a screening tool, the potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if total potential to emit from all new and modified units is below this threshold, no further analysis will be needed.

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)						
	NO2	SO2	CO	PM	PM10	CO2e
Total PE from New and Modified Units*	9.9	1.1	16.4	2.7	2.7	64,058**
PSD Significant Emission Increase Thresholds	40	40	100	25	15	75,000
PSD Significant Emission Increase?	n	n	n	n	n	n

*from PAS emission profiles

** $(62.5 \text{ MMBtu/hr})(2)(117 \text{ lb CO}_2\text{e/MMBtu})(\text{ton}/2000 \text{ lb}) = 64,058 \text{ tons CO}_2\text{e}$

As demonstrated above, because the project has a total potential to emit from all new and modified emission units below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 due to a significant emission increase and no further discussion is required.

Rule 2520 Federally Mandated Operating Permits

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

In accordance with Rule 2520, Minor Modifications:

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

Minor permit modifications do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions.

The requirement to record annual heat input will be relaxed (removed), consequently, the proposed project constitutes a Significant Modification to the Title V Permit.

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment/minor modification application.

Rule 4001 New Source Performance Standards (NSPS)

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).

The subject steam generators were constructed/modified post 6/9/89, have a rating of 62.5 MMBtu/hr and are gas-fired. Subpart Dc has no standards for gas-fired steam generators. Therefore the subject steam generators are not an affected facility and subpart Dc does not apply.

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

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

Rule 4101 Visible Emissions

Rule 4101 states 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 as dark as, or darker than, Ringelmann 1 or 20% opacity.

As long as the equipment is properly maintained and operated, compliance with visible emissions limits is expected under normal operating conditions.

Rule 4102 Nuisance

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

California Health & Safety Code 41700 (Health Risk Assessment)

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

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (**Appendix C**), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

RMR Summary				
Categories	Steam Generator (Unit 811-16)	Steam Generator (Unit 831-17)	Project Totals	Facility Totals
Prioritization Score	0.01	0.01	0.02	>1
Acute Hazard Index	0.00	0.00	0.00	0.28
Chronic Hazard Index	0.00	0.00	0.00	0.15
Maximum Individual Cancer Risk (10⁻⁶)	0.00	0.00	0.00	4.50
T-BACT Required?	No	No		
Special Permit Conditions?	No	No		

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District's thresholds for triggering T-BACT requirements; therefore, compliance with the District's Risk Management Policy is expected.

Rule 4201 Particulate Matter Concentration

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

The units currently comply with this rule and are expected to maintain their compliance at the added location.

Rule 4301 Fuel Burning Equipment

Rule 4301 limits air contaminant emissions from fuel burning equipment as defined in the rule. Section 3.1 defines fuel burning equipment as "any furnace, boiler, apparatus, stack, and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer".

Section 5.0 gives the requirements of the rule.

A person shall not discharge into the atmosphere combustion contaminants exceeding in concentration at the point of discharge, 0.1 grain per cubic foot of gas calculated to 12% of carbon dioxide at dry standard conditions.

A person shall not build, erect, install or expand any non-mobile fuel burning equipment unit unless the discharge into the atmosphere of contaminants will not and does not exceed any one or more of the following rates:

- 200 pound per hour of sulfur compounds, calculated as sulfur dioxide (SO₂)
- 140 pounds per hour of nitrogen oxides, calculated as nitrogen dioxide (NO₂)
- Ten pounds per hour of combustion contaminants as defined in Rule 1020 and derived from the fuel.

The units currently comply with this rule and are expected to maintain their compliance at the added location.

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. Pursuant to Section 2.0 of District Rule 4305, the units are subject to District Rule 4305, *Boilers, Steam Generators and Process Heaters – Phase 2*.

In addition, the unit is also subject to District Rule 4306, *Boilers, Steam Generators and Process Heaters – Phase 3*.

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

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

The unit are natural gas-fired with a maximum heat input of 62.5 MMBtu/hr. Pursuant to Section 2.0 of District Rule 4306, the unit is subject to District Rule 4306, *Boilers, Steam Generators and Process Heaters – Phase 3*.

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

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

The units are natural gas-fired with a maximum heat input of 62.5 MMBtu/hr. Pursuant to Section 2.0 of District Rule 4320, the units are subject to District Rule 4320.

The units currently comply with this rule and are expected to maintain their compliance at the added location.

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 SO₂, on a dry basis averaged over 15 consecutive minutes.

The units currently comply with this rule and are expected to maintain their compliance at the added location.

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

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

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

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

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful Public Noticing period, issue ATC S-1547-811-16 and '831-17 subject to the permit conditions on the attached draft ATCs in **Appendix D**.

X. Billing Information

Aera Energy, LLC, 1133398, S-1547

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1547-811-16	3020-02 H	62.5 MMBtu/hr	\$1030
S-1547-831-17	3020-02 H	62.5 MMBtu/hr	\$1030

Appendix A
Discussion of Revision to Permit Conditions

ATC S-1547-811-16

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Y
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Y
3. This unit is approved to operate at the following locations: SE35/T12N/R24W and NE27/T31S/R22E. [District Rule 4102] N
4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Y
5. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Y
6. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H₂S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Y
7. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H₂S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Y
8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Y
- ~~9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Y~~

The above condition is not included on S-1547-831. The applicant requests that this permit's conditions match S-1547-831 as they will both be operated at the same location. Furthermore the condition is unnecessary and will therefore be removed.

10. {565} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Y

11. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Y

12. Steam generator shall be equipped with operational vapor recovery gas volumetric flow meter whenever unit is connected to the vapor recovery gas supply. [District Rule 2201] Y

13. Unit may be disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter removed (or replaced). Permittee shall keep a written record of the date(s) when the unit is disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter is removed (or replaced). [District Rule 1080] Y

14. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Y

15. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Y

16. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Y

17. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 3.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 51.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Y

18. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Y

19. 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] Y

20. 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, 5.4 and 4306, 5.4] Y

21. 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, 5.5 and 4306, 5.5] Y

22. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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] Y

23. 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. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Y

24. Source testing to measure natural gas-combustion NO_x and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). 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, 6.3 and 4306, 6.3] Y

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Y

26. 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. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Y

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 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H2S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Y

28. 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 and 4306, 5.5] Y

29. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Y

~~30. 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, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Y~~

This unit is not subject to an annual heat input limit; therefore, this condition will be removed.

31. 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, 5.1 and 5.3] Y

~~32. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-01] Y~~

~~33. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Y~~

~~34. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-01] Y~~

~~35. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-01] Y~~

~~36. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-01] Y~~

District requirements already ensure that these (above five) conditions are complied with; therefore, the above conditions will be removed.

~~37. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-01] Y~~

The District allows up to 36-months between NOx source tests if compliance is demonstrated on two (2) consecutive annual source tests. If source a test demonstrates that the unit does not meet the applicable emission limit, annual source tests are required. This source testing schedule has been demonstrated to be as effective to annual testing.

The unit is natural gas fired and is required to perform annual fuel sulfur testing or to maintain fuel invoices in lieu of PM10 source testing.

Therefore, the above condition will be removed.

~~38. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx EPA methods 1 through 4 (lb/hr), and 7E (ppmv), PM10 EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-01] Y~~

~~39. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-01] Y~~

~~40. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-01] Y~~

~~41. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-01] Y~~

~~42. Only natural gas or a combination of natural gas and field or casing head gas may be fired by this unit. [PSD SJ 89-01] Y~~

~~43. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-01] Y~~

~~44. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-01] Y~~

~~45. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-01] Y~~

~~46. Visible emissions shall not exceed « Ringelmann or 10% opacity. [PSD SJ 89-01] Y~~

District requirements are equal to or more stringent than the above requirements; therefore, the above conditions will be removed.

~~47. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-01] Y~~

This project's authorizations and revisions are not expected to result in an increase in the potential to emit of any pollutant from this source above the PSD applicability thresholds; therefore, the above condition will be removed.

~~48. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-01] Y~~

This project's authorizations and revisions are not expected to affect the requirements of the above condition; therefore, the condition will be removed.

~~49. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-01] Y~~

Aera has policies in place that ensure that the above condition is complied with; therefore, the above condition will be removed.

~~50. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-01] Y~~

The District has been delegated authority to implement PSD and this permit has requirements regarding forwarding correspondence to the District; therefore, the above condition will be removed.

51. Formerly S-1511-193 N

after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). 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, 6.6 and 4306, 6.3] Y

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Y

26. 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. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Y

27. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO_x (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D4084 or double GC for H₂S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Y

28. 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 and 4306, 5.5] Y

29. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Y

~~30. 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, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Y~~

This unit is not subject to an annual heat input limit; therefore, this condition will be removed.

31. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO_x 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 NO_x emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Y

~~32. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-01] Y~~

~~33. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a~~

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] Y

19. If 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, 5.4 and 4306, 5.4] Y

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, 5.5 and 4306, 5.5] Y

21. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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] Y

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. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Y

~~23. For each steam generator site downstream of H₂S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Y~~

The applicant states that no permitted H₂S scavenging operations exist within the Midway Sunset operations; therefore, this condition will be removed.

24. Source testing to measure natural gas-combustion NO_x and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or

pre-combustion, a grab sample analysis by double GC for H₂S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Y

10. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H₂S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Y

11. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Y

12. {565} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Y

13. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Y

14. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, SO_x (as SO₂): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NO_x (as NO₂): 0.018 lb/MMBtu or 15 ppmv @ 3% O₂, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O₂. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Y

15. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO₂; sulfur - 200 pounds of SO₂ per hour, or 2000 ppmv as SO₂, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO₂ - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Y

16. Emission rates shall not exceed any of the following: PM₁₀: 7.5 lb/day, SO_x (as SO₂): 3.0 lb/day, VOC: 4.5 lb/day, NO_x (as NO₂): 51.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Y

17. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Y

18. 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 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

S-1547-831-17

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Y
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Y
3. This unit is approved to operate at the following locations: SE35/T12N/R24W and NE27/T31S/R22E. [District Rule 4102] N
4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Y
5. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Y
6. Steam generator shall be equipped with operational vapor recovery gas volumetric flow meter whenever unit is connected to the vapor recovery gas supply. [District Rule 2201] Y
- ~~7. When the vapor gas stream is stopped or before starting, the unit may be disconnected or reconnected at the scrubbed vapor recovery gas supply and the vapor recovery gas volumetric flow meter removed or reconnected. Permittee shall keep a written record of the date(s) when the unit is disconnected or reconnected at the scrubbed vapor recovery gas supply and the vapor recovery gas volumetric flow meter is removed or reconnected. [District Rule 1080] Y~~

To be consistent with ATC S-1547-811-16 the above condition will be replaced with the following S-1547-811-16 condition which has the same requirements:

- **Unit may be disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter removed (or replaced). Permittee shall keep a written record of the date(s) when the unit is disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter is removed (or replaced). [District Rule 1080] Y**
8. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Y
 9. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur

~~normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Y~~

~~34. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-01] Y~~

~~35. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-01] Y~~

~~36. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-01] Y~~

District requirements already ensure that these (above five) conditions are complied with; therefore, the above conditions will be removed.

~~37. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-01] Y~~

The District allows up to 36-months between NOx source tests if compliance is demonstrated on two (2) consecutive annual source tests. If source a test demonstrates that the unit does not meet the applicable emission limit, annual source tests are required. This source testing schedule has be demonstrated to be as effective to annual testing.

The unit is natural gas fired and is required to perform annual fuel sulfur testing or to maintain fuel invoices in lieu of PM10 source testing.

Therefore, the above condition will be removed.

~~38. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx EPA methods 1 through 4 (lb/hr), and 7E (ppmv), PM10 EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-01] Y~~

~~39. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-01] Y~~

~~40. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-01] Y~~

~~41. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-01] Y~~

~~42. Only natural gas or a combination of natural gas and field or casing head gas may be fired by this unit. [PSD SJ 89-01] Y~~

~~43. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75-gr/scf. [PSD SJ 89-01] Y~~

~~44. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-01] Y~~

~~45. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O₂. [PSD SJ 89-01] Y~~

~~46. Visible emissions shall not exceed « Ringelmann or 10% opacity. [PSD SJ 89-01] Y~~

District requirements are equal to or more stringent than the above requirements; therefore, the above conditions will be removed.

~~47. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-01] Y~~

This project's authorizations and revisions are not expected to result in an increase in the potential to emit of any pollutant from this source above the PSD applicability thresholds; therefore, the above condition will be removed.

~~48. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-01] Y~~

This project's authorizations and revisions are not expected to affect the requirements of the above condition; therefore, the condition will be removed.

~~49. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-01] Y~~

Aera has policies in place that ensure that the above condition is complied with; therefore, the above condition will be removed.

~~50. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A 3 3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89 01] Y~~

The District has been delegated authority to implement PSD and this permit has requirements regarding forwarding correspondence to the District; therefore, the above condition will be removed.

51. Formerly S-1511-246 N

Appendix B Current PTOs

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1547-811-11

EXPIRATION DATE: 05/31/2016

SECTION: SE35 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER, FLUE GAS RECIRCULATION, AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM (MOCO #808) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
2. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
5. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
6. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), 4301 (Amended December 17, 1992), 4406 (Amended December 17, 1992, and Rule 4801 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
7. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

8. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Steam generator shall be equipped with operational vapor recovery gas volumetric flow meter whenever unit is connected to the vapor recovery gas supply. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Unit may be disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter removed (or replaced). Permittee shall keep a written record of the date(s) when the unit is disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter is removed (or replaced). [District Rule 1080] Federally Enforceable Through Title V Permit
11. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit
13. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit
14. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 3.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 51.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit
16. 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
17. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

18. 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, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
19. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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
20. 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. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
21. Source testing to measure natural gas-combustion NO_x and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). 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, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit
22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
23. 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. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
24. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO_x (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H₂S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
25. 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 and 4306, 5.5] Federally Enforceable Through Title V Permit
26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit
27. 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, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

28. 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, 5.1 and 5.3] Federally Enforceable Through Title V Permit
29. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
30. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
31. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
32. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
33. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
34. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
35. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4 (lb/hr), and 7E (ppmv), PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
36. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
37. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-01] Federally Enforceable Through Title V Permit
38. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
39. Only natural gas or a combination of natural gas and field or casing head gas may be fired by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
40. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
41. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
42. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

43. Visible emissions shall not exceed « Ringelmann or 10% opacity. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
44. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
45. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
46. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
47. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
48. Formerly S-1511-193

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1547-831-12

EXPIRATION DATE: 05/31/2016

SECTION: SE35 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN LOW-NOX BURNER, FLUE GAS RECIRCULATION AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM, (MOCO #809) (SOUTH MIDWAY)

PERMIT UNIT REQUIREMENTS

1. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
2. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Steam generator shall be equipped with operational vapor recovery gas volumetric flow meter whenever unit is connected to the vapor recovery gas supply. [District Rule 2201] Federally Enforceable Through Title V Permit
4. When the vapor gas stream is stopped or before starting, the unit may be disconnected or reconnected at the scrubbed vapor recovery gas supply and the vapor recovery gas volumetric flow meter removed or reconnected. Permittee shall keep a written record of the date(s) when the unit is disconnected or reconnected at the scrubbed vapor recovery gas supply and the vapor recovery gas volumetric flow meter is removed or reconnected. [District Rule 1080] Federally Enforceable Through Title V Permit
5. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

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

8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
10. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, SO_x (as SO₂): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NO_x (as NO₂): 0.018 lb/MMBtu or 15 ppmv @ 3% O₂, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O₂. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit
12. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO₂; sulfur - 200 pounds of SO₂ per hour, or 2000 ppmv as SO₂, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO₂ - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit
13. Emission rates shall not exceed any of the following: PM₁₀: 7.5 lb/day, SO_x (as SO₂): 3.0 lb/day, VOC: 4.5 lb/day, NO_x (as NO₂): 51.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit
14. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit
15. 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 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
16. If 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, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
17. 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, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

18. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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
19. 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. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
20. For each steam generator site downstream of H₂S scavenger chemical injection points, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a daily basis utilizing Draeger tubes calibrated for existing sulfur species or other District-approved fuel sulfur detection method(s) or device(s). If compliance with fuel sulfur content limit(s) for the affected steam generators is demonstrated for 5 consecutive days, then the monitoring frequency shall be weekly. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to measure natural gas-combustion NO_x and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). 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, 6.6 and 4306, 6.3] Federally Enforceable Through Title V Permit
22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
23. 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. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
24. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO_x (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H₂S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
25. 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 and 4306, 5.5] Federally Enforceable Through Title V Permit
26. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit
27. 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, 4.0; 4305, 6.1; 4306, 6.1 and Rule 4320, 6.1] Federally Enforceable Through Title V Permit
28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO_x 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 NO_x emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

29. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
30. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
31. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
32. Facility shall operate this unit in compliance with all other applicable provisions of 40 CFR Parts 52, 60 and 61 and all other applicable federal, State and local air quality regulations. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
33. This unit shall be equipped with oxygen controls, low NOx burner, and a flue gas recirculation system for the control of NOx emissions. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
34. Facility shall conduct annual performance tests for NOx and PM10 and furnish the EPA a written report of the results of such tests. The tests shall be conducted at the maximum operating capacity of the unit. Upon written request from the operator, EPA may approve the conducting of performance tests at a lower specified operating capacity. Upon written request and adequate justification, EPA may waive annual testing requirements for this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
35. Performance tests for NOx and PM10 shall be conducted and the results reported in accordance with the test methods in 40 CFR 60, Part 60.8 and Appendix A. The following test methods shall be used: NOx - EPA methods 1 through 4 (lb/hr), and 7E (ppmv), PM10 - EPA Methods 1 through 5. Equivalent test methods may be used with prior written approval from the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
36. EPA shall be notified in writing at least 30 days prior to performance tests. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
37. For performance test purposes, sampling ports, platforms, and access shall be provided by the operator at each exhaust system in accordance with 40 CFR 60.8(e). [PSD SJ 89-01] Federally Enforceable Through Title V Permit
38. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
39. Only natural gas or a combination of natural gas and field or casing head gas may be fired by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
40. Field or casing head gas will be sweetened as required to limit the sulfur content of the fuel to 75 gr/scf. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
41. Operator shall record hours of operation and amounts and types of fuel fired each calendar quarter. All information shall be recorded in a form suitable for inspection. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
42. Emission rates shall not exceed any of the following: PM10: 0.303 lb/hr, NOx: 2.71 lb/hr or 35 ppmv dry, @ 3% O2. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
43. Visible emissions shall not exceed « Ringelmann or 10% opacity. [PSD SJ 89-01] Federally Enforceable Through Title V Permit

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

44. Any relaxation in the District's Determination of Compliance conditions, Authority to Construct conditions, Permit to Operate conditions, or any other subsequent permit of legally binding document that could result in an increase of the potential to emit of any pollutant from this source above the PSD applicability thresholds will require a full PSD review of the source as if construction had not yet begun. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
45. Facility shall have legal and operational responsibility and control of all air pollutant emitting activities of the MOCO TEOR project. This responsibility shall include, but not limited to: operating and maintaining the project to comply with all federal, state and local air pollution laws, regulations, permits, orders and other requirements; ensuring the emissions offsets or other reductions required for this project under permits issued by the District are obtained as required; any violation of any air pollution requirements are the legal responsibility of the facility in addition to any other legally responsible parties. Any proposed change to this condition shall require the prior written concurrence of the EPA. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
46. Facility is required to implement the conditions required by the U.S. Fish and Wildlife Service, as outlined in their Biological Opinion and Formal Consultation Response (August 30, 1990), to prevent the incidental taking (killing, harming or harassment) of endangered species that may be affected by this unit. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
47. All correspondence as required by this permit shall be forwarded to: a) Director, Air Management Division, Compliance Section (Attn: A-3-3), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 89-01] Federally Enforceable Through Title V Permit
48. Formerly S-1511-246

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

Appendix C
HRA

San Joaquin Valley Air Pollution Control District Risk Management Review

To: David Torii – Permit Services
 From: Yu Vu – Technical Services
 Date: August 22, 2013
 Facility Name: Aera Energy LLC
 Location: NE/4 Sec 27, T31S, R22E
 Application #(s): S-1547-811-16 and -831-17
 Project #: S-1133398

A. RMR SUMMARY

RMR Summary				
Categories	Steam Generator (Unit 811-16)	Steam Generator (Unit 831-17)	Project Totals	Facility Totals
Prioritization Score	0.01	0.01	0.02	>1
Acute Hazard Index	0.00	0.00	0.00	0.28
Chronic Hazard Index	0.00	0.00	0.00	0.15
Maximum Individual Cancer Risk (10⁻⁶)	0.00	0.00	0.00	4.50
T-BACT Required?	No	No		
Special Permit Conditions?	No	No		

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

Unit #s 811-16 and 831-17

No special conditions are required.

B. RMR REPORT

I. Project Description

Technical Services received a request on August 20, 2013, to perform a Risk Management Review for a proposed modification to two natural gas/vapor gas-fired steam generators. The applicant is proposing to transfer the location of the units within the same stationary source.

II. Analysis

Technical Services performed a prioritization using the District's HEARTs database. Since the total facility prioritization score was greater than one, a refined health risk assessment

was required. Emissions calculated using the District's "Petroleum Steam Generators" spreadsheet were input into the HEARTs database. The AERMOD model was used, with the parameters outlined below and meteorological data for 2005-2009 from Bakersfield to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the Hot Spots Analysis and Reporting Program (HARP) risk assessment module to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Unit 811-16 and 831-17			
Source Type	Point	Location Type	Rural
Stack Height (m)	9.449	Closest Receptor (m)	644
Stack Diameter. (m)	0.899	Type of Receptor	Business
Stack Exit Velocity (m/s)	13.378	Max Hours per Year	8760
Stack Exit Temp. (°K)	449.817	Fuel Type	NG/Vapor Gas
Burner Rating (MMBtu/hr)	62.5		

III. Conclusion

The acute and chronic indices are below 1.0 and the cancer risk factor associated with the project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Toxic emissions summary
- D. Prioritization score
- E. Facility Summary

Appendix D
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1547-811-16

LEGAL OWNER OR OPERATOR: AERA ENERGY LLC
MAILING ADDRESS: PO BOX 11164
BAKERSFIELD, CA 93389-1164

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

SECTION: SE35 TOWNSHIP: 12N RANGE: 24W

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A COEN QLN-ULN LOW NOX BURNER, FLUE GAS RECIRCULATION, AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM (MOCO #808) (SOUTH MIDWAY): ALLOW OPERATION AT ADDITIONAL LOCATION AND REVISE/REMOVE VARIOUS CONDITIONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This unit is approved to operate at the following locations: SE35/T12N/R24W and NE27/T31S/R22E. [District Rule 4102]
4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5600 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-1547-811-16; Aug 29 2018 1:26PM - TORID : Joint Inspection NOT Required

5. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
9. {565} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
10. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Steam generator shall be equipped with operational vapor recovery gas volumetric flow meter whenever unit is connected to the vapor recovery gas supply. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Unit may be disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter removed (or replaced). Permittee shall keep a written record of the date(s) when the unit is disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter is removed (or replaced). [District Rule 1080] Federally Enforceable Through Title V Permit
13. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM10: 0.005 lb/MMBtu, SOx (as SO2): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O2. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit
15. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO2; sulfur - 200 pounds of SO2 per hour, or 2000 ppmv as SO2, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO2 - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit
16. Emission rates shall not exceed any of the following: PM10: 7.5 lb/day, SOx (as SO2): 3.0 lb/day, VOC: 4.5 lb/day, NOx (as NO2): 51.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

17. Duration of startup and shutdown (as defined in Rule 4320) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5; 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit
18. 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 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 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, 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, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
21. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
23. Source testing to measure natural gas-combustion NO_x and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). 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, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit
24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

25. 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. 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
26. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO_x (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H₂S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
27. 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 and 4306, 5.5] Federally Enforceable Through Title V Permit
28. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit
29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO_x 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 NO_x emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit
30. Formerly S-1511-193

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1547-831-17

LEGAL OWNER OR OPERATOR: AERA ENERGY LLC
MAILING ADDRESS: PO BOX 11164
BAKERSFIELD, CA 93389-1164

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

SECTION: SE35 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH A COEN MODEL QLN-ULN LOW-NOX BURNER, FLUE GAS RECIRCULATION AND NON-CONDENSIBLE PIPING FROM VAPOR CONTROL SYSTEM, (MOCO #809) (SOUTH MIDWAY): ALLOW OPERATION AT ADDITIONAL LOCATION AND REVISE/REMOVE VARIOUS CONDITIONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This unit is approved to operate at the following locations: SE35/T12N/R24W and NE27/T31S/R22E. [District Rule 4102]
4. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] 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-1547-831-17 : Aug 23 2013 11:35AM -- TORIQ : Joint Inspection NOT Required

5. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. When complying with SO_x emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 6B; or EPA Method 8; or ARB Methods 8 or 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H₂S and mercaptans performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the unit is fired on noncertified gaseous fuel and compliance with SO_x emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4468, D 4084, D3246 or grab sample analysis by double GC for H₂S and mercaptans performed in the laboratory. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
9. {565} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40 CFR 60, Subpart Dc (except 60.44c(g) and (h) and 60.48c). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
10. Steam generator shall be equipped with operational fuel gas volumetric flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Steam generator shall be equipped with operational vapor recovery gas volumetric flow meter whenever unit is connected to the vapor recovery gas supply. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Unit may be disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter removed (or replaced). Permittee shall keep a written record of the date(s) when the unit is disconnected (or reconnected) at the vapor recovery gas supply and the vapor recovery gas volumetric flow meter is removed (or replaced). [District Rule 1080] Federally Enforceable Through Title V Permit
13. Permittee shall maintain daily records of quantity and higher heating value of natural gas and vapor recovery gas burned in this steam generator. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emission rates, except during startup, shutdown, and refractory curing shall not exceed any of the following: PM-10: 0.005 lb/MMBtu, SO_x (as SO₂): 0.002 lb/MMBtu, VOC: 0.003 lb/MMBtu, NO_x (as NO₂): 0.018 lb/MMBtu or 15 ppmv @ 3% O₂, or CO: 0.030 lb/MMBtu or 40 ppmv @ 3% O₂. [District Rules 2201; 4305, 5.1 and 4306, 5.1] Federally Enforceable Through Title V Permit
15. Emission rates during startup, shutdown and refractory curing shall not exceed: particulate matter - 10 pounds per hour, or 0.1 grains/dscf calculated to 12% CO₂; sulfur - 200 pounds of SO₂ per hour, or 2000 ppmv as SO₂, or 0.11 pounds sulfur (as S) per MMBtu on average-wide basis for all units in Rule 4406 plan; NO₂ - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4201, 3.0; 4301, 5.2; 4405, 5.2; 4406, 4.2 and 4801, 3.1] Federally Enforceable Through Title V Permit
16. Emission rates shall not exceed any of the following: PM₁₀: 7.5 lb/day, SO_x (as SO₂): 3.0 lb/day, VOC: 4.5 lb/day, NO_x (as NO₂): 51.0 lb/day or 9855 lb/year, or CO: 45.0 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

17. Duration of startup and shutdown (as defined in Rule 4306) shall not exceed 2 hours each per occurrence. Refractory curing period is defined as a maintenance-based reduced-load period of time during which a unit is brought from a shutdown status to staged rates of firing for the sole purpose of curing new refractory lining of the unit, and shall not exceed 30 hours per occurrence. The operator shall maintain records of the duration of start-up, shutdown, and refractory curing periods. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit
18. 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 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 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, 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, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
21. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
23. Source testing to measure natural gas-combustion NO_x and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). 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, 6.6 and 4306, 6.3] Federally Enforceable Through Title V Permit
24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5 and 4306, 5.5] Federally Enforceable Through Title V Permit
25. 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. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.4] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

26. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO_x (lb/MMBtu) - ARB Method 8 or 100 or EPA Method 6, 6B or 8 or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - ASTM D1072, D4468, D3246, D3246, D4084 or double GC for H₂S and mercaptans performed in laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rule 1081, 6.1; 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
27. 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 and 4306, 5.5] Federally Enforceable Through Title V Permit
28. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4.0; 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit
29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO_x 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 NO_x emission limit listed in Rule 4320. [District Rule 4320, 5.1 and 5.3] Federally Enforceable Through Title V Permit
30. Formerly S-1511-246

DRAFT