



JUL 05 2012

Robert Loveless  
Gray Development Company LLC  
2701 Patton Way  
Bakersfield, CA 93308

**Re: Notice of Preliminary Decision - Authority to Construct  
Project Number: S-1122054**

Dear Mr. Loveless:

Enclosed for your review and comment is the District's analysis of Gray Development Company LLC's application for an Authority to Construct for an increase in CO limit for steam generator S-3282-5, at various unspecified locations within Gray Development Company LLC's heavy oil central stationary source.

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

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 392-5617.

Sincerely,



David Warner  
Director of Permit Services

DW: RUE/cm

Enclosures

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

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**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



JUL 05 2012

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Authority to Construct**  
**Project Number: S-1122054**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Gray Development Company LLC's application for an Authority to Construct for an increase in CO limit for steam generator S-3282-5, at various unspecified locations within Gray Development Company LLC's heavy oil central stationary source.

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

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**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
AN AUTHORITY TO CONSTRUCT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Authority to Construct to Gray Development Company LLC for an increase in CO limit for steam generator S-3282-5, at various unspecified locations within Gray Development Company LLC's heavy oil central stationary source.

The analysis of the regulatory basis for this proposed action, Project #S-1122054, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**



Rule 4304 Equipment Tuning Procedure for Boilers, Steam Generators and Process Heaters (10/19/95)  
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

The steam generator is authorized to operate at various unspecified locations in Gray's heavy oil central stationary source. 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

Gray operates equipment for the production of crude oil and natural gas. In thermally enhanced oil recovery (TEOR), natural gas is combusted in steam generators to 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.

The steam generator (S-3282-5) will be used to produce steam for a recently authorized Thermally Enhanced Oil Recovery (TEOR) operation (ATC S-3282-6-0). Gray has requested to increase the CO emissions limit from 25 ppmv @ 3% O<sub>2</sub> to 400 ppmv @ 3% O<sub>2</sub>.

### V. Equipment Listing

#### Pre-Project Equipment Description:

ATC S-3282-5: 25 MMBTU/HR NATCO MODEL DWG A-21610 NATURAL GAS/LPG/TEOR GAS-FIRED STEAM GENERATOR WITH GIDEON MODEL MGW-22R1 ULTRA LOW NOX BURNER, OXYGEN SENSOR, AND FLUE GAS RECIRCULATION - OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE SAME STATIONARY SOURCE (FACILITY S-3282)

#### Proposed Modification:

ATC S-3282-5-1: MODIFICATION 25 MMBTU/HR NATCO MODEL DWG A-21610 NATURAL GAS/LPG/TEOR GAS-FIRED STEAM GENERATOR WITH GIDEON MODEL MGW-22R1 ULTRA LOW NOX BURNER, OXYGEN SENSOR, AND FLUE GAS RECIRCULATION - OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE SAME STATIONARY SOURCE

(FACILITY S-3282): INCREASE CO LIMIT FROM 25 PPMV @ 3% O2 TO  
400 PPMV @ 3% O2

Post Project Equipment Description:

PTO S-3282-5-1: 25 MMBTU/HR NATCO MODEL DWG A-21610 NATURAL GAS/LPG/TEOR  
GAS-FIRED STEAM GENERATOR WITH GIDEON MODEL MGW-22R1  
ULTRA LOW NOX BURNER, OXYGEN SENSOR, AND FLUE GAS  
RECIRCULATION - OPERATING AT VARIOUS UNSPECIFIED  
LOCATIONS WITHIN THE SAME STATIONARY SOURCE (FACILITY S-  
3282)

## **VI. Emission Control Technology Evaluation**

No changes to the existing NOx control equipment are proposed.

## **VII. General Calculations**

### **A. Assumptions**

- The unit is fired on PUC-regulated natural gas, LPG or TEOR gas (per applicant).
- Natural Gas Heating Value: 1,000 Btu/scf (District Practice)
- F-Factor for Natural Gas and TEOR gas: 8,710 dscf/MMBtu at 68°F (40 CFR 60)
- TEOR gas has composition and properties very close to natural gas; therefore, the heating value and F-Factor for TEOR gas and natural gas can reasonably be assumed to be the same.
- Propane (LPG) Heating Value: 91.5 MMBtu/103 gallons (AP-42 Section 1.5)
- F-Factor for Propane (LPG): 8,710 dscf/MMBtu at 68°F (40 CFR 60)
- The CO<sub>2</sub>-based F-Factor for natural gas: 1,024.2 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix A, Method 19)

**B. Emission Factors**

Steam Generator S-3282-5			
Pollutant	Emission Factors		Source
NO <sub>x</sub>	0.0085 lb-NO <sub>x</sub> /MMBtu	7 ppmvd NO <sub>x</sub> (@ 3%O <sub>2</sub> )	ATC S-3282-5-0
SO <sub>x</sub>	0.0164* lb-SO <sub>x</sub> /MMBtu		"
PM <sub>10</sub>	0.0076 lb-PM <sub>10</sub> /MMBtu	7.6 lb/10 <sup>6</sup> scf	"
CO	0.018 lb-CO/MMBtu	25 ppmv CO (@ 3%O <sub>2</sub> )	"
	0.3 lb-CO/MMBtu	400 ppmv CO (@ 3%O <sub>2</sub> )	proposed
VOC	0.0055 lb-VOC/MMBtu	5.5 lb/10 <sup>6</sup> scf	ATC S-3282-5-0

\*Based on a heating value of 91,500 Btu/gal for propane (AP-42, Section 1.5, 10/96).  
 $SO_x = 0.1(S)$ , where S = sulfur content in gr/100 scf =  $0.1 (15) = 1.5 \text{ lb}/1000 \text{ gal} \Rightarrow (1.5 \text{ lb}/1000 \text{ gal} \div 0.0915 \text{ MMBtu}/\text{gal}) = 0.0164 \text{ lb}/\text{MMBtu}$  where, maximum sulfur content of LPG is 15 gr/100 scf (CRC Handbook of Tables for Applied Engineering Science, 2<sup>nd</sup> Edition, page 390).

**C. Calculations**

**1. Pre-Project Potential to Emit (PE1)**

The potential to emit for the operation is calculated as follows, and summarized in the table below:

ATC S-3282-5-0

Pollutant	Daily PE1			
	EF1 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/day)	Daily PE1 (lb/day)
NO <sub>x</sub> *	0.009	25	24	5.1
SO <sub>x</sub>	0.01640	25	24	9.8
PM <sub>10</sub>	0.0076	25	24	4.6
CO	0.018	25	24	10.8
VOC	0.0055	25	24	3.3

Pollutant	Annual PE1			
	EF1 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/year)	Annual PE1 (lb/year)
NO <sub>x</sub>	0.009	25	8,760	1,862
SO <sub>x</sub>	0.01640	25	8,760	3,592
PM <sub>10</sub>	0.0076	25	8,760	1,664
CO	0.018	25	8,760	3,942
VOC	0.0055	25	8,760	1,205

2. Post Project Potential to Emit (PE2)

Pollutant	Daily PE2			
	EF2 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/day)	Daily PE2 (lb/day)
NO <sub>x</sub>	0.009	25	24	5.1
SO <sub>x</sub>	0.01640	25	24	9.8
PM <sub>10</sub>	0.0076	25	24	4.6
CO	0.296	25	24	177.4
VOC	0.0055	25	24	3.3

Pollutant	Annual PE2			
	EF2 (lb/MMBtu)	Heat Input (MMBtu/hr)	Operating Schedule (hr/year)	Annual PE2 (lb/year)
NO <sub>x</sub>	0.009	25	8,760	1,862
SO <sub>x</sub>	0.01640	25	8,760	3,592
PM <sub>10</sub>	0.0076	25	8,760	1,664
CO	0.296	25	8,760	64,736
VOC	0.0055	25	8,760	1,205



The emissions profiles are included in **Attachment II**.

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

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site. The facility has no ERCs.

<b>Pre Project Stationary Source Potential to Emit [SSPE1] (lb/year)</b>					
Permit Unit	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
PTO S-3282-1-1	0	0	0	0	14
PTO S-3282-2-1	0	0	0	0	18
ATC S-3282-3-2	0	0	0	0	39
PTO S-3282-4-0	0	0	0	0	3,130
ATC S-3282-5-0	1,862	3,592	1,664	3,942	1,205
ATC S-3282-6-0	0	0	0	0	7,738
ATC S-3282-7-0	0	0	0	0	37
<b>Pre Project SSPE (SSPE1)</b>	<b>1,862</b>	<b>3,592</b>	<b>1,664</b>	<b>3,942</b>	<b>12,181</b>

\*shared vapor control system has been installed as authorized by ATC S-3282-3-2 (applicant phone call 6-15-12 10:30 am)

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

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site. The facility has no ERCs.

<b>Post Project Stationary Source Potential to Emit [SSPE2] (lb/year)</b>					
Permit Unit	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
PTO S-3282-1-1	0	0	0	0	14
PTO S-3282-2-1	0	0	0	0	18
ATC S-3282-3-2	0	0	0	0	39
PTO S-3282-4-0	0	0	0	0	3,130
ATC S-3282-5-1	1,862	3,592	1,664	64,736	1,205
ATC S-3282-6-0	0	0	0	0	7,738
ATC S-3282-7-0	0	0	0	0	37
<b>Post Project SSPE (SSPE2)</b>	<b>1,862</b>	<b>3,592</b>	<b>1,664</b>	<b>64,736</b>	<b>12,181</b>

\*shared vapor control system has been installed as authorized by ATC S-3282-3-2 (applicant phone call 6-15-12 10:30 am)

## 5. Major Source Determination

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. However, for the purposes of determining major source status, the SSPE2 shall not include the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.”

Major Source Determination (lb/year)					
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
SSPE1	1,862	3,592	1,664	3,942	12,181
SSPE2	1,862	3,592	1,664	64,736	12,181
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No

As seen in the table above, the facility is not an existing Major Source for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOCs and is not becoming a Major Source as a result of this project.

## 6. Baseline Emissions (BE)

The BE calculation (in lbs/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

As shown in Section VII.C.5 above, the facility is not a Major Source for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, or VOC. Therefore BE=PE1 for these pollutants.

BE (lb/year)					
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
S-3282-5	1,862	3,592	1,664	3,942	1,205

## 7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is not a major source for any of the pollutants addressed in this project, this project does not constitute an SB 288 major modification.

## 8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

Since this facility is not a Major Source for any pollutants, this project does not constitute a Federal Major Modification. Additionally, since the facility is not a major source for PM<sub>10</sub> (140,000 lb/year), it is not a major source for PM<sub>2.5</sub> (200,000 lb/year).

## 9. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included below.

S-3282-5 (steam generator)

QNEC			
Pollutant	PE2 (lb/yr)	PE1 (lb/yr)	QNEC (lb/qtr)
NO <sub>x</sub>	1,862	1,862	0
SO <sub>x</sub>	3,592	3,592	0
PM <sub>10</sub>	1,664	1,664	0
CO	64,736	3,942	15,199
VOC	12,181	12,181	0

## VIII. Compliance

### Rule 2201 New and Modified Stationary Source Review Rule

#### A. Best Available Control Technology (BACT)

##### 1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions\*:

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

\*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

**a. New emissions units – PE > 2 lb/day**

As discussed in Section I above, there are no new emissions units associated with this project. Therefore BACT for new units with PE > 2 lb/day purposes is not triggered.

**b. Relocation of emissions units – PE > 2 lb/day**

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

**c. Modification of emissions units – AIPE > 2 lb/day**

$$\text{AIPE} = \text{PE}_2 - \text{HAPE}$$

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)

PE<sub>2</sub> = Post-Project Potential to Emit, (lb/day)

HAPE = Historically Adjusted Potential to Emit, (lb/day)

$$\text{HAPE} = \text{PE}_1 \times (\text{EF}_2/\text{EF}_1)$$

Where,

PE<sub>1</sub> = The emissions unit's PE prior to modification or relocation, (lb/day)

EF<sub>2</sub> = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF<sub>2</sub> is greater than EF<sub>1</sub> then EF<sub>2</sub>/EF<sub>1</sub> shall be set to 1

EF<sub>1</sub> = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

$$\text{AIPE} = \text{PE}_2 - (\text{PE}_1 * (\text{EF}_2 / \text{EF}_1))$$

NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, VOC

$$\text{PE}_2 = \text{PE}_1, \text{EF}_2 = \text{EF}_1 \text{ therefore } \text{AIPE} = 0$$

CO

The facility SSPE is less than 200,000 lb CO/yr. Therefore BACT is not triggered for CO.

**d. SB 288/Federal Major Modification**

As discussed in Section VII.C.7 above, this project does not constitute an SB 288 and/or Federal Major Modification for NO<sub>x</sub> emissions. Therefore BACT is not triggered for any pollutant.

**B. Offsets**

**1. Offset Applicability**

Offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

<b>Offset Determination (lb/year)</b>					
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
SSPE2	1,862	3,592	1,664	64,736	12,181
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets calculations required?	No	No	No	No	No

**2. Quantity of Offsets Required**

As seen above, the SSPE2 is not greater than the offset thresholds for all the pollutants; therefore offset calculations are not necessary and offsets will not be required for this project.

**C. Public Notification**

**1. Applicability**

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed, and/or
- d. Any project with an SSPE of greater than 20,000 lb/year for any pollutant.

**a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications**

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in VII.C.7, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

**b. PE > 100 lb/day**

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. There are no new emissions units associated with this project. Therefore public noticing is not required for this project for PE > 100 lb/day.

**c. Offset Threshold**

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO <sub>x</sub>	1,862	1,862	20,000 lb/year	No
SO <sub>x</sub>	3,592	3,592	54,750 lb/year	No
PM <sub>10</sub>	1,664	1,664	29,200 lb/year	No
CO	3,942	64,736	200,000 lb/year	No
VOC	12,181	12,181	20,000 lb/year	No

**d. SSIPE > 20,000 lb/year**

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO <sub>x</sub>	1,862	1,862	0	20,000 lb/year	No
SO <sub>x</sub>	3,592	3,592	0	20,000 lb/year	No
PM <sub>10</sub>	1,664	1,664	0	20,000 lb/year	No
CO	64,736	3,942	60,794	20,000 lb/year	Yes
VOC	12,181	12,181	0	20,000 lb/year	No

As demonstrated above, the SSIPE for CO was greater than 20,000 lb/yr; therefore public noticing for SSIPE purposes is required.

## **2. Public Notice Action**

As discussed above, this project will result in emissions, for any pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will be required for this project.

## **D. Daily Emission Limits (DELs)**

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

The DELs for the unit is based on the use of natural gas as a fuel and will be stated in the form of emission factors as shown:

This unit shall only be fired on PUC-regulated natural gas, liquefied petroleum gas (LPG), TEOR gas, or a combination thereof. [District Rule 2201] N

Sulfur content of propane shall not exceed 15 grain per 100 scf. [District Rule 2201] N

Emissions from the gas-fired unit shall not exceed any of the following limits: 7 ppmv NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.0085 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 400 ppmv CO @ 3% O<sub>2</sub> or 0.3 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] N

## **E. Compliance Assurance**

### **1. Source Testing**

Startup source testing will be required. However, Additionally, Rules 4305, 4306, and 4320 require NO<sub>x</sub> and CO emission testing not less than once every 12 months and once every 36 months if two consecutive annual source tests demonstrate compliance.

### **2. Monitoring**

No monitoring is required to demonstrate compliance with Rule 2201.

District Rules 4305, 4306, and 4320 require the owner of any unit equipped with NO<sub>x</sub> reduction technology to either install and maintain continuous emissions monitoring equipment for NO<sub>x</sub>, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or install and maintain APCO-approved alternate monitoring plan. Since the unit is equipped with a low NO<sub>x</sub> burner and FGR, this requirement applies.

The applicant proposed to utilize pre-approve alternate monitoring plan "A" (Periodic Monitoring NO<sub>x</sub>, CO, and O<sub>2</sub> Emissions Concentrations) to meet the requirements of

these rules. This monitoring also satisfies the monitoring requirements for Rule 2201. No additional monitoring is required.

### 3. Recordkeeping

The applicant will also be required to keep records of all of the parameters that are required by the Rule 4305, 4306, and 4320 alternate monitoring requirements.

### 4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

## F. Ambient Air Quality Analysis (AAQA)

The project requires public notice for CO emissions. Therefore, an AAQA is required for the purpose of determining whether the increase in CO emissions will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis and the results (**Attachment III**) from the Criteria Pollutant Modeling are as follows:

### Criteria Pollutant Modeling Results\*

Steam Generator	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO <sub>x</sub>	X	X	X	X	X
SO <sub>x</sub>	X	X	X	X	X
PM <sub>10</sub>	X	X	X	X	X
PM <sub>2.5</sub>	X	X	X	X	X

\*Results were taken from the attached PSD spreadsheet.

As shown, the increase in CO emissions is not expected to cause or make worse a violation of an air quality standard.

### 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 generator has a rating of 25 MMBtu/hr and is gas fired. Subpart Dc has no standards for gas-fired steam generators. Therefore the subject steam generator is not an affected facility and subpart Dc does not apply.

### Rule 4101 Visible Emissions

Per Section 5.0, no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). A condition will be placed on the ATC to ensure compliance with the opacity limit.



Therefore, compliance with the requirements of this rule is expected.

### **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.

As demonstrated above, there are no increases in HAP emissions associated with this project, therefore a health risk assessment is not necessary and no further risk analysis is required.

### **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 unit is authorized to combust only natural gas. As long as the unit is operated properly, compliance is expected.

### **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 (SO<sub>2</sub>)
- 140 pounds per hour of nitrogen oxides, calculated as nitrogen dioxide (NO<sub>2</sub>)
- Ten pounds per hour of combustion contaminants as defined in Rule 1020 and derived from the fuel.

<b>District Rule 4301 Limits</b>			
<b>Unit</b>	<b>NO<sub>2</sub></b>	<b>Total PM</b>	<b>SO<sub>2</sub></b>
S-3282-5 (lb/hr)	0.0085 x 25 = 0.21	0.0076 x 25 = 0.19	0.0164 x 25 = 0.41
Rule Limit (lb/hr)	140	10	200

The particulate emissions from the steam generators will not exceed 0.1 gr/dscf at 12% CO<sub>2</sub> or 10 lb/hr. Further, the emissions of SO<sub>x</sub> and NO<sub>x</sub> will not exceed 200 lb/hr or 140 lb/hr, respectively.

Therefore, compliance with the requirements of this rule is expected.

#### **Rule 4304 Equipment Tuning Procedure for Boilers, Steam Generators and Process Heaters**

##### S-3282-5-0 (Steam Generator):

Pursuant to District Rules 4305 and 4306, Section 6.3.1, the steam generator is not required to tune since it follows a District approved Alternate Monitoring scheme where the applicable emission limits are periodically monitored. Therefore, the unit is not subject to this rule.

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

The unit is natural gas-fired with a maximum heat input of 20.0 MMBtu/hr. Pursuant to Section 2.0 of District Rule 4305, the unit is 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 is natural gas-fired with a maximum heat input of 20.0 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**

**Section 5.0 Requirements**

Section 5.1 of the rule requires compliance with the NO<sub>x</sub> and CO emissions limits listed in Table 1 of Section 5.2 or payment of an annual emissions fee to the District as specified in Section 5.3 and compliance with the control requirements specified in Section 5.4; or as stated in Section 5.1.3, comply with the applicable Low-use Unit requirements of Section 5.5.

**Section 5.2 NO<sub>x</sub> and CO Emission Limits**

C. Oilfield Steam Generators

Rule 4320 Emissions Limits				
Category	Operated on gaseous fuel		Operated on liquid fuel	
	NO <sub>x</sub> Limit	CO Limit	NO <sub>x</sub> Limit	CO Limit
1. Units with a total rated heat input >20.0 MMBtu/hr	Standard Schedule 7 ppmv or 0.008 lb/MMBtu; or			
	Staged Enhanced Schedule Initial limit: 9 ppmv @ 3% O <sub>2</sub> , 0.011 lb/MMBtu	400 ppmv @ 3% O <sub>2</sub>	40 ppmv or 0.052 lb/MMBtu	400 ppmv @ 3% O <sub>2</sub>
	Final limit: 5 ppmv @ 3% O <sub>2</sub> , 0.0062 lb/MMBtu			

- the proposed NO<sub>x</sub> emission factor is 7 ppmvd @ 3% O<sub>2</sub> (0.008 lb/MMBtu), and
- the proposed CO emission factor is no greater than 400 ppmvd @ 3% O<sub>2</sub> (0.3 lb/MMBtu).

Therefore, compliance with Section 5.1 of District Rule 4320 is expected.

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

### **Section 5.3 Annual Fee Calculation**

Applicant has proposed to meet the emissions limits requirements of Section 5.1 and therefore this section is not applicable.

### **Section 5.4 Particulate Matter Control Requirements**

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

The steam generator has a sulfur emission limit of 0.00285 lb SO<sub>2</sub>/MMBtu (1.0 gr S/100scf) and is authorized to combust natural/TEOR gas. Therefore the unit is in compliance with the SO<sub>x</sub>/PM<sub>10</sub> requirements of Section 5.4.1.2 of the rule which states the following:

*5.4.1.2 On and after the applicable NO<sub>x</sub> Compliance Deadline specified in Section 5.2 Table 1, operators shall limit fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet*

Compliance with the rule is expected.

### **Section 5.5 Low Use**

The subject steam generator is not low use units and therefore the requirements of Section 5.5 do not apply.

### **Section 5.6, Startup and Shutdown Provisions**

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

### **Section 5.7, Monitoring Provisions**

Section 5.7 requires either use of a APCO approved Continuous Emissions Monitoring System (CEMS) for NO<sub>x</sub>, CO, and oxygen, or implementation of an APCO-approved Alternate Monitoring System consisting of:

- 5.7.1.1 Periodic NO<sub>x</sub> and CO exhaust emission concentrations,
- 5.7.1.2 Periodic exhaust oxygen concentration,
- 5.7.1.3 Flow rate of reducing agent added to exhaust,
- 5.7.1.4 Catalyst inlet and exhaust temperature,
- 5.7.1.5 Catalyst inlet and exhaust oxygen concentration,
- 5.7.1.6 Periodic flue gas recirculation rate, or
- 5.7.1.7 Other operational characteristics.

In order to satisfy the requirements of District Rule 4320, the applicant has proposed to use pre-approved alternate monitoring scheme A (pursuant to District Policy SSP-1105), which requires that monitoring of NO<sub>x</sub>, CO, and O<sub>2</sub> exhaust concentrations shall be conducted at least once per month (in which a source test is not performed) using a portable analyzer. The following conditions will be incorporated into the permit in order to ensure compliance with the requirements of the proposed alternate monitoring plan:

- {4063} The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320]
- {4064} If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320]
- {4065} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320]
- {4066} The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent by volume and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320]

## 5.7.6 Monitoring SO<sub>x</sub> Emissions

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

Section 5.7.6.2 Operators complying with Section 5.4.1.3 by installing and operating a control device with 95% SO<sub>x</sub> reduction shall propose the key system operating parameters and frequency of the monitoring and recording. The monitoring option proposed shall be submitted for approval by the APCO.

Section 5.7.6.3 Operators complying with Section 5.4.1.3 shall perform an annual source test unless a more frequent sampling and reporting period is included in the Permit to Operate. Source tests shall be performed in accordance with the test methods in Section 6.2.

### Sulfur Monitoring

The following conditions will be included on the ATC for the steam generator which is authorized to combust natural/TEOR/produced gas (ATC S-3282-5-0):

If the unit is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rules 2201 and 4320] N

If the unit is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that 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 quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2201 and 4320] N

If the unit is not fired on PUC-regulated natural gas and compliance with SO<sub>x</sub> 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 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rules 2201 and 4320] N

## **Section 5.8, Compliance Determination**

Section 5.8.1 requires that the operator of any unit shall have the option of complying with either the applicable heat input (lb/MMBtu) emission limits or the concentration (ppmv) emission limits specified in Section 5.2. The emission limits selected to demonstrate compliance shall be specified in the source test proposal pursuant to Rule 1081 (Source Sampling) as stated in the following ATC condition:

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

Section 5.8.2 requires that all emissions measurements be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise 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.

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

Section 5.8.3 Continuous Emissions Monitoring System (CEMS) emissions measurements shall be averaged over a period of 15 consecutive minutes to demonstrate compliance with the applicable emission limits. Any 15-consecutive-minute block average CEMS measurement exceeding the applicable emission limits shall constitute a violation. The steam generator is not equipped with CEMs and therefore this section is not applicable.

Section 5.8.4 For emissions monitoring pursuant to Sections 5.7.1, and 6.3.1 using a portable NO<sub>x</sub> analyzer as part of an APCO approved Alternate Emissions Monitoring System, emission readings shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15-consecutive-minute sample reading or by taking at least five readings evenly spaced out over the 15-consecutive-minute period.

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

Section 5.8.5 For emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation of this rule, 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.

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

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

## **Section 6.1 Recordkeeping**

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.5 shall be maintained for five calendar years and shall be made available to the APCO and EPA upon request. Failure to maintain records or information contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule.

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

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

Section 6.1.1 requires that a unit operated under the exemption of Section 4.2 shall monitor and record, for each unit, the cumulative annual hours of operation. The unit is not Section 4.2 exempt and therefore these records are not required.

Section 6.1.2 requires the operator of any unit that is subject to the requirements of Section 5.5 shall record the amount of fuel use at least on a monthly basis for each unit. On and after the applicable compliance schedule specified in Section 7.0, in the event that such unit exceeds the applicable annual heat input limit specified in Section 5.5, the unit shall be brought into full compliance with this rule as specified in Section 5.2 Table 1. The unit is not low use and therefore these records are not necessary.

Section 6.1.3 The operator of any unit subject to Section 5.5.1 or Section 6.3.1 shall maintain records to verify that the required tune-up and the required monitoring of the operational characteristics of the unit have been performed.

Section 6.1.4 The operator performing start-up or shutdown of a unit shall keep records of the duration of start-up or shutdown.

Section 6.1.5 The operator of any unit firing on liquid fuel during a PUC-quality natural gas curtailment period pursuant to Section 5.4.2 shall record the sulfur content of the fuel, amount of fuel used, and duration of the natural gas curtailment period. The unit is not authorized to combust liquid fuel. Therefore this section is not applicable.

## Section 6.2, Test Methods

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

Pollutant	Units	Test Method Required
NO <sub>x</sub>	ppmv	EPA Method 7E or ARB Method 100
NO <sub>x</sub>	lb/MMBtu	EPA Method 19
CO	ppmv	EPA Method 10 or ARB Method 100
Stack Gas O <sub>2</sub>	%	EPA Method 3 or 3A, or ARB Method 100
Stack Gas Velocities	ft/min	EPA Method 2
Stack Gas Moisture Content	%	EPA Method 4
Oxides of sulfur		EPA Method 6C, EPA Method 8, or ARB Method 100
Total Sulfur as Hydrogen Sulfide (H <sub>2</sub> S) Content		EPA Method 11 or EPA Method 15, as appropriate.
Sulfur Content of Liquid Fuel		ASTM D 6920-03 or ASTM D 5453-99



The following test method conditions are included on the ATCs:

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

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

Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] N

Section 6.2.8.2. The SOx emission control system efficiency shall be determined using the following:

$$\% \text{ Control Efficiency} = [(C_{\text{SO}_2, \text{inlet}} - C_{\text{SO}_2, \text{outlet}}) / C_{\text{SO}_2, \text{inlet}}] \times 100$$

where:

$C_{\text{SO}_2, \text{inlet}}$  = concentration of SOx (expressed as SO<sub>2</sub>) at the inlet side of the SOx emission control system, in lb/dscf

$C_{\text{SO}_2, \text{outlet}}$  = concentration of SOx (expressed as SO<sub>2</sub>) at the outlet side of the SOx emission control system, in lb/dscf

The units are not equipped with a SO<sub>2</sub> scrubber. Therefore this section is not applicable.

### Section 6.3 Compliance Testing

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

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

Section 6.3.1.2 Tune-ups required by Sections 5.5.1 and 6.3.1 do not need to be performed for units that operate and maintain an APCO approved CEMS or an APCO approved Alternate Monitoring System where the applicable emission limits are periodically monitored. Applicant has proposed to monitor the emissions of NOx and CO Alternate Monitoring Scheme "A" and therefore tuning is not required.

Section 6.3.1.3 If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits specified in Section 5.2, the source testing frequency shall revert to at least once every 12 months.

The following conditions are included on the ATC:

Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas, LPG, or TEOR gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320] N

Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas, LPG, or TEOR gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] N

Source testing shall be required to measure NO<sub>x</sub>, and CO emissions when firing on LPG for a duration of over 100 hours during the 12-month period previous to the source test anniversary date. After demonstrating compliance on two (2) consecutive annual source tests when unit is fired on LPG, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320] N

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

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

Sections 6.3.2.1 through 6.3.2.7 address the requirements of group testing which is not applicable for this project.

#### **Section 6.4, Emission Control Plan (ECP)**

Section 6.4.1 requires that the operator of any unit shall submit to the APCO for approval an Emissions Control Plan according to the compliance schedule in Section 7.0 of District Rule 4320.

The proposed unit will be in compliance with the emissions limits listed in Table 1, Section 5.1 of this rule and with periodic monitoring and source testing requirements. Therefore, this current application for the new proposed unit satisfies the requirements of the Emission Control Plan, as listed in Section 6.4 of District Rule 4320. No further discussion is required.

#### **Section 7.0, Compliance Schedule**

Section 7.0 indicates that an operator with multiple units at a stationary source shall comply with this rule in accordance with the schedule specified in Table 1, Section 5.2 of District Rule 4320.

The unit will be in compliance with the emissions limits listed in Table 1, Section 5.2 of this rule, and periodic monitoring and source testing as required by District Rule 4320. Therefore, requirements of the compliance schedule, as listed in Section 7.1 of District Rule 4306, are satisfied. No further discussion is required.

## Conclusion

Conditions are included on the ATCs in order to ensure compliance with each section of this rule, see attached draft permit(s). Therefore, compliance with District Rule 4320 requirements is expected.

## Rule 4801 Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO<sub>2</sub>, on a dry basis averaged over 15 consecutive minutes.

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

$$\text{Volume SO}_2 = \frac{n RT}{P}$$

With:

N = moles SO<sub>2</sub>

T (Standard Temperature) = 60°F = 520°R

P (Standard Pressure) = 14.7 psi

R (Universal Gas Constant) =  $\frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}}$

$$\frac{0.0164 \text{ lb} - \text{SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}} \times \frac{520 \text{ °R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 11.3 \frac{\text{parts}}{\text{million}}$$

$$\text{Sulfur Concentration} = 11.3 \frac{\text{parts}}{\text{million}} < 2,000 \text{ ppmv (or 0.2\%)}$$

## 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 conducted a Risk Management Review and concludes that potential health impacts are less than significant.

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-3282-5-1 subject to the permit conditions on the attached draft ATC in **Attachment IV**.

#### X. BILLING INFORMATION

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-3282-5-1	3020-02-H	25 MMBtu/hr	\$ 1030

#### Attachments

- I: ATC S-3282-5-0
- II: Emissions Profile
- III: AAQA Modeling
- IV: Draft ATC

**Attachment I**  
**ATC S-3282-5-0**



## AUTHORITY TO CONSTRUCT

PERMIT NO: S-3282-5-0

ISSUANCE DATE: 02/06/2009

LEGAL OWNER OR OPERATOR: GRAY DEVELOPMENT CO LLC  
MAILING ADDRESS: 2701 PATTON WAY  
BAKERSFIELD, CA 93308-5707

COPY

LOCATION: HEAVY OIL CENTRAL NE 1/4 SEC 2, T29S, R28E  
KERN COUNTY, CA 93263

SECTION: NE02 TOWNSHIP: 29S RANGE: 28E

### EQUIPMENT DESCRIPTION:

25 MMBTU/HR NATCO MODEL DWG A-21610 NATURAL GAS/LPG/TEOR GAS-FIRED STEAM GENERATOR WITH GIDEON MODEL MGW-22R1 ULTRA LOW NOX BURNER, OXYGEN SENSOR, AND FLUE GAS RECIRCULATION - OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE SAME STATIONARY SOURCE (FACILITY S-3282)

## CONDITIONS

1. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201]
2. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
4. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. Emissions from the gas-fired unit shall not exceed any of the following limits: 7 ppmv NOx @ 3% O2 or 0.0085 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 25 ppmv CO @ 3% O2 or 0.018 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306]

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

DAVID WARNER, Director of Permit Services

S-3282-5-0; Jun 15 2012 12:21PM - EDGEHLR : Joint Inspection NOT Required

8. This unit shall only be fired on PUC-regulated natural gas, liquefied petroleum gas (LPG), TEOR gas, or a combination thereof. [District Rule 2201]
9. If the unit is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2201]
10. If the unit is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that 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 quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2201]
11. If the unit is not fired on PUC-regulated natural gas and compliance with SO<sub>x</sub> 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 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2201]
12. Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas, LPG, or TEOR gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, and 4306]
13. Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas, LPG, or TEOR gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306]
14. Source testing shall be required to measure NO<sub>x</sub>, and CO emissions when firing on LPG for a duration of over 100 hours during the 12-month period previous to the source test anniversary date. After demonstrating compliance on two (2) consecutive annual source tests when unit is fired on LPG, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305 and 4306]
15. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]
16. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
17. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306]
18. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]
19. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306]
20. 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 and 4306]
21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306]
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

CONDITIONS CONTINUE ON NEXT PAGE

23. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306]
24. 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 performing the notification and testing required by this condition. [District Rules 4305 and 4306]
25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306]
26. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306]
27. Permittee shall submit notification to the District of the date of construction and actual startup. Notifications shall be postmarked no later than 30 days after construction and 15 days after actual startup. The notifications shall include the design heat input and identification of fuels for this permit unit. [40 CFR 60.48c(a)(1)]
28. Permittee shall record the amount of each fuel combusted during each operating day. [40 CFR 60.48c(g)(1)]
29. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306, and 40 CFR 60.48c(i)]



**Attachment II**  
**Emissions Profile**

Permit #: S-3282-5-1	Last Updated
Facility: GRAY DEVELOPMENT CO LLC	06/15/2012 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	1862.0	3592.0	1664.0	64736.0	1205.0
Daily Emis. Limit (lb/Day)	5.1	9.8	4.6	177.4	3.3
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	15198.0	0.0
Q2:	0.0	0.0	0.0	15198.0	0.0
Q3:	0.0	0.0	0.0	15199.0	0.0
Q4:	0.0	0.0	0.0	15199.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

**Attachment III  
AAQA Modeling**

## San Joaquin Valley Air Pollution Control District Risk Management Review

To: Richard Edgehill– Permit Services  
 From: Leland Villalvazo – Technical Services  
 Date: June 25, 2012  
 Facility Name: Gary Development  
 Location: Heavy Oil Central  
 Application #(s): S-3282-5-1  
 Project #: S-1122054

### A. RMR SUMMARY

RMR Summary				
Categories	Steam Gen (Unit 5-1)		Project Totals	Facility Totals
Prioritization Score	NA – CO Modeling Only		NA	0.08
Acute Hazard Index				
Chronic Hazard Index				
Maximum Individual Cancer Risk (10 <sup>-6</sup> )				
T-BACT Required?	No			
Special Permit Conditions?	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 # 5-1

No special conditions are required.

### B. RMR REPORT

#### I. Project Description

Technical Services received a request on June 18, 2012, to perform an Ambient Air Quality Analysis for a 25 MMBTU/Hr Steam Generator to increase the CO emissions allowed by the current ATC from 25 ppmv to 400 ppmv.

## II. Analysis

Technical Services performed modeling for criteria pollutant CO. The emission rates used for criteria pollutant modeling were 7.39 lb/hr CO.

The results from the Criteria Pollutant Modeling are as follows:

### Criteria Pollutant Modeling Results\*

Diesel ICE	1 Hour	3 Hours	8 Hours.	24 Hours	Annual
CO	Pass	X	Pass	X	X

## III. Conclusion

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

## IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer

**Attachment IV**  
**Draft ATC S-3282-5-1**

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

**DRAFT**  
ISSUANCE DATE: DRAFT

PERMIT NO: S-3282-5-1

LEGAL OWNER OR OPERATOR: GRAY DEVELOPMENT CO LLC  
MAILING ADDRESS: 2701 PATTON WAY  
BAKERSFIELD, CA 93308-5707

LOCATION: HEAVY OIL CENTRAL NE 1/4 SEC 2, T29S, R28E  
KERN COUNTY, CA 93263

SECTION: NE02 TOWNSHIP: 29S RANGE: 28E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 25 MMBTU/HR NATCO MODEL DWG A-21610 NATURAL GAS/LPG/TEOR GAS-FIRED STEAM GENERATOR WITH GIDEON MODEL MGW-22R1 ULTRA LOW NOX BURNER, OXYGEN SENSOR, AND FLUE GAS RECIRCULATION - OPERATING AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE SAME STATIONARY SOURCE (FACILITY S-3282): INCREASE CO LIMIT TO 400 PPMV @ 3% O2

**CONDITIONS**

1. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201]
2. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
3. {1407} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
4. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
5. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. This unit shall only be fired on PUC-regulated natural gas, liquefied petroleum gas (LPG), TEOR gas, or a combination thereof. [District Rule 2201]
8. Sulfur content of propane shall not exceed 15 grain per 100 scf. [District Rules 2201 and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director APCO

**DAVID WARNER, Director of Permit Services**

S-3282-5-1 : Jun 25 2012 1:53PM -- EDGEHILL : Joint Inspection NOT Required

9. Emissions from the gas-fired unit shall not exceed any of the following limits: 7 ppmv NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.0085 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 400 ppmv CO @ 3% O<sub>2</sub> or 0.3 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]
10. If the unit is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rules 2201 and 4320]
11. If the unit is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that 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 quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2201 and 4320]
12. If the unit is not fired on PUC-regulated natural gas and compliance with SO<sub>x</sub> 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 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rules 2201 and 4320]
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16. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]
17. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
18. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320]
19. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320]
20. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320]
21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320]
22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320]
23. {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

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CONDITIONS CONTINUE ON NEXT PAGE



24. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305,4306, and 4320]
25. 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 performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320]
26. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320]
27. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320]
28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320]
29. ATC shall be implemented concurrently with ATC S-3283-5-0. [District Rule 2201]

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