



NOV 26 2019

Mr. Jon Armstrong  
Berry Petroleum Company LLC  
5201 Truxtun Ave.  
Bakersfield, CA 93309

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)**  
**Facility Number: S-1328**  
**Project Number: S-1193430**

Dear Mr. Armstrong:

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. Berry Petroleum Company LLC is proposing the installation of a new steam generator in western Kern County.

The notice of preliminary decision for this project has been posted on the District's website ([www.valleyair.org](http://www.valleyair.org)). 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.

Samir Sheikh  
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

Mr. Jon Armstrong  
Page 2

Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Arnaud Marjollet". The signature is written in a cursive style and is positioned above a horizontal line.

Arnaud Marjollet  
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email  
cc: Gerardo C. Rios, EPA (w/enclosure) via EPS

**San Joaquin Valley Air Pollution Control District**  
**Authority to Construct Application Review**  
Low NOx Steam Generator

Facility Name: Berry Petroleum Company LLC  
Mailing Address: 5201 Truxtun Ave.  
Bakersfield, CA 93309  
Contact Person: Jon Armstrong  
Telephone: 661-616-3941

Date: 10/30/19  
Engineer: William Jones  
Lead Engineer: Rich Karrs

RWK  
11-4-19

E-Mail: [jarmstrong@bry.com](mailto:jarmstrong@bry.com)  
Application #(s): S-1328-62-0  
Project #: S-1193430  
Deemed Complete: 9/23/19

---

## I. Proposal

Berry Petroleum Company LLC (BPC) has requested an Authority to Construct (ATC) permit for the installation of a new 85 MMBtu/hr. natural gas, ethane-rich natural gas gas-fired steam generator located within the BPC Heavy Oil Western Stationary Source (HOWSS).

The increase in emission associated with this project, will triggers BACT, offsets and public notice. The draft ATC is included in **Appendix A**.

BPC has received their Title V Permit. 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. BPC must apply to administratively amend their Title V permit.

The District has determined that Facilities S-1246, S-1328, and S-2265 are part of the same stationary source, and will be included in the Stationary Source Potential to Emit.

## II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (8/15/19)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (8/15/19)
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 2 (8/21/03)  
Rule 4306 Boilers, Steam Generators, and Process Heaters – Phase 3 (10/16/08)  
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 will be located at Belridge (Hill Property), within NE Section 19, Township 28S, Range 21E in BPC's HOWSS. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school.

### IV. Process Description

In 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, resulting in enhanced oil production.

### V. Equipment Listing

S-1328-62-0 : 85.0 MMBTU/HR PCL NATURAL GAS, ETHANE-RICH NATURAL GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN MODEL LE ULTRA LOW-NOX BURNER, FLUE GAS RECIRCULATION (FGR) SYSTEM, AND O2 CONTROLLER (BELRIDGE HILL PROPERTY)

### VI. Emission Control Technology Evaluation

Criteria pollutants from natural gas-fired steam generators include NO<sub>x</sub>, CO, VOC, PM<sub>10</sub>, and SO<sub>x</sub>.

NO<sub>x</sub> is the major pollutant of concern when burning natural gas. NO<sub>x</sub> formation is either due to thermal fixation of atmospheric nitrogen in the combustion air (thermal NO<sub>x</sub>) or due to conversion of chemically bound nitrogen in the fuel (fuel NO<sub>x</sub>). Due to the low fuel nitrogen content of natural gas, nearly all NO<sub>x</sub> emissions are thermal NO<sub>x</sub>. Formation of thermal NO<sub>x</sub> is affected by four furnace zone factors: (1) nitrogen concentration, (2) oxygen concentration, (3) peak temperature, and (4) time of exposure at peak temperature.

Flue gas recirculation (FGR) reduces NO<sub>x</sub> emissions by recirculating a percentage of the exhaust gas back into the windbox. This reduces the oxygen concentration in the air-fuel mixture and regulates the combustion process, lowering the combustion temperature. The lowered availability of oxygen in conjunction with lowered combustion temperature reduces the formation of NO<sub>x</sub>.

## VII. General Calculations

### A. Assumptions

- The maximum operating schedule is 24 hours per day (per applicant)
- Annual potential to emit is calculated based on 8,760 hours of operation per year
- Fuel will consist of a mixture of natural gas, ethane-rich gas, and TEOR gas
- EPA F-factor for natural gas is 8,578 dscf/MMBtu (40 CFR 60, Appendix B)
- Molar specific volume of a gas @ 60 °F is 379.5 ft<sup>3</sup>/lb-mol
- Maximum Heat Input: 85.0 MMBtu/hr. (per applicant).
- To streamline emission calculations, PM2.5 emissions are assumed to be equal to PM10 emissions. Only if needed to determine if a project is a Federal major modification for PM2.5 will specific PM2.5 emission calculations be performed.

### B. Emission Factors

Pollutant	Emission Factors			Source
NO <sub>x</sub>	6.2 lb.-NO <sub>x</sub> /MMscf	0.0062 lb.-NO <sub>x</sub> /MMBtu	5 ppmvd NO <sub>x</sub> (@ 3%O <sub>2</sub> )	proposed
SO <sub>x</sub>	2.85 lb.-SO <sub>x</sub> /MMscf	0.00285 lb. SO <sub>2</sub> /MMBtu		BACT
PM <sub>10</sub>	3.0 lb.-PM <sub>10</sub> /MMscf	0.003 lb.-PM <sub>10</sub> /MMBtu		FYI-328
CO	18.5 lb.-CO/MMscf	0.0185 lb.-CO/MMBtu	25 ppmv CO @3% O <sub>2</sub>	BACT
VOC	5.5 lb.-VOC/MMscf	0.0055 lb.-VOC/MMBtu	13ppmv VOC @3% O <sub>2</sub>	proposed

### C. Calculations

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

Since this is a new emissions unit, PE1 = 0 for all pollutants.

#### 2. Post-Project Potential to Emit (PE2)

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

Potential to Emit (PE)					
Pollutant	Emission Factors (lb./MMBtu)	Maximum Heat Input (MMBtu/hr.)	Hours of Operation (hr./day)	Daily Emissions (lb./day)	Annual Emissions (lb./year)
NO <sub>x</sub>	0.0062	85	24	12.6	4,617
SO <sub>x</sub>	0.00285	85	24	5.8	2,122
PM <sub>10</sub>	0.003	85	24	6.1	2,234

<b>Potential to Emit (PE)</b>					
Pollutant	Emission Factors (lb./MMBtu)	Maximum Heat Input (MMBtu/hr.)	Hours of Operation (hr./day)	Daily Emissions (lb./day)	Annual Emissions (lb./year)
CO	0.0185	85	24	37.7	13,775
VOC	0.0055	85	24	11.2	4,095

### **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.

Facility emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE1 calculations are not necessary.

### **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.

Since facility emissions are already above the Offset and Major Source Thresholds for VOC emissions, SSPE2 calculations are not necessary.

### **5. Major Source Determination**

#### **Rule 2201 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. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

This source is an existing Major Source for NO<sub>x</sub>, SO<sub>x</sub>, PM, CO and VOC emissions and will remain a Major Source for NO<sub>x</sub>, SO<sub>x</sub>, PM, CO and VOC. No change in other pollutants are proposed or expected as a result of this project.

**Rule 2410 Major Source Determination:**

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO <sub>2</sub>	VOC	SO <sub>2</sub>	CO	PM	PM <sub>10</sub>
Estimated Facility PE before Project Increase	192.2	574.5	137.7	615.9	137.8	137.8
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	Yes	No	Yes	No	No

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

**6. Baseline Emissions (BE)**

The BE calculation (in lb. /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 any pollutant.

Therefore BE = PE1.

S-1328-62-0:

Since this is a new emissions unit, BE = PE1 = 0 for all pollutants.

**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 a major source, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb./year)	Threshold (lb./year)	SB 288 Major Modification Calculation Required?
NO <sub>x</sub>	4,617	50,000	No
SO <sub>x</sub>	2,122	80,000	No
PM <sub>10</sub>	2,234	30,000	No
VOC	4,095	50,000	No

Since none of the SB 288 Major Modification Thresholds are surpassed with 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.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. Emission decreases may not cancel out the increases for this determination.

#### Step 1

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project.

The project's combined total emission increases are compared to the Federal Major Modification Thresholds in the following table.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb. /yr.)	Thresholds (lb. /yr.)	Federal Major Modification?
NO <sub>x</sub> *	4,617	0	Yes
VOC*	4,095	0	Yes
PM <sub>10</sub>	2,234	30,000	No
PM <sub>2.5</sub>	2,234	20,000	No
SO <sub>x</sub>	2,122	80,000	No

\*If there is any emission increases in NO<sub>x</sub> or VOC, this project is a Federal Major Modification and no further analysis is required.



Since there is an increase in NO<sub>x</sub> and VOC emissions, this project constitutes a Federal Major Modification.

Federal Offset quantities are calculated below:

**Federal Offset Quantities:**

The Federal offset quantity is only calculated only for the pollutants for which the project is a Federal Major Modification. The Federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) during the baseline period for each emission unit multiplied by the applicable federal offset ratio. There are no special calculations performed for units covered by an SLC.

NO <sub>x</sub>		Federal Offset Ratio		1.5
Permit No.	Actual Emissions (lb./year)	Potential Emissions (lb./year)	Emissions Change (lb. /yr.)	
S-1328-62-0	0	4,617	4,617	
Net Emission Change (lb./year):			4,617	
Federal Offset Quantity: (NEC * 1.5)			6,925	

VOC		Federal Offset Ratio		1.5
Permit No.	Actual Emissions (lb./year)	Potential Emissions (lb./year)	Emissions Change (lb. /yr.)	
S-1328-62-0	0	4,095	4,095	
Net Emission Change (lb./year):			4,095	
Federal Offset Quantity: (NEC * 1.5)			6,143	

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

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO<sub>2</sub> (as a primary pollutant)
- SO<sub>2</sub> (as a primary pollutant)
- CO
- PM
- PM<sub>10</sub>

**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 PSD Major Source. Because the project is not located within

10 km (6.2 miles) 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. Project Emission Increase – Significance Determination**

**a. Evaluation of Calculated Post-project Potential to Emit for New or Modified Emissions Units vs PSD Significant Emission Increase Thresholds**

As a screening tool, the post-project potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if the total potentials to emit from all new and modified units are below the applicable thresholds, no further PSD analysis is needed.

<b>PSD Significant Emission Increase Determination: Potential to Emit (tons/year)</b>					
	<b>NO<sub>2</sub></b>	<b>SO<sub>2</sub></b>	<b>CO</b>	<b>PM</b>	<b>PM<sub>10</sub></b>
Total PE from New and Modified Units	2.3	1.1	6.9	1.1	1.1
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	N	N	N	N	N

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

**10. 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 in **Appendix F**.

**VIII. Compliance Determination**

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

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

**1. BACT Applicability**

Pursuant to District Rule 2201, Section 4.1, 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 Adjusted Increase in Permitted Emissions (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 seen in Section VII.C.2 above, the applicant is proposing to install a steam generator with a PE greater than 2 lb. /day for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC. BACT is triggered for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO and VOC since the PEs are greater than 2 lb. /day, and the SSPE2 for CO is greater than 200,000 lb. /year.

**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**

As discussed in Section I above, there are no modified emissions units associated with this project. Therefore BACT is not triggered.

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

As discussed in Sections VII.C.7 and VII.C.8 above, this project does constitute an SB 288 and/or Federal Major Modification for VOC, and NO<sub>x</sub> emissions. Therefore BACT is triggered for VOC, and NO<sub>x</sub> emissions.

**2. BACT Guideline**

BACT Guideline 1.2.1, applies to the oilfield steam generators greater  $\geq$  20 MMBtu/hr. [Oilfield Steam Generator ( $>$  or  $\geq$ 20 MMBtu/hr.)](See **Appendix C**)

**3. Top-Down BACT Analysis**

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached Top-Down BACT Analysis (see **Appendix C**), BACT has been satisfied with the following:

- NO<sub>x</sub>: 5 ppmvd @ 3% O<sub>2</sub>
- SO<sub>x</sub>: Natural gas, with a sulfur content not exceeding 1 gr of sulfur compounds (as S) per 100 scf
- PM<sub>10</sub>: Natural gas, with a sulfur content not exceeding 1 gr of sulfur compounds (as S) per 100 scf
- CO: 25 ppmvd @ 3% O<sub>2</sub>
- VOC: Gaseous fuel

## B. Offsets

### 1. Offset Applicability

Pursuant to District Rule 2201, Section 4.5, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals 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.

Offset Determination (lb./year)					
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
SSPE2	389,020	277,450	277,789	1,245,715	1,153,112
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	Yes	Yes	Yes	Yes	Yes

### 2. Quantity of Offsets Required

As seen above, the facility is an existing Major Source for NO<sub>x</sub>, SO<sub>x</sub>, PM, VOC and CO the SSPE2 is greater than the offset thresholds. Therefore offset calculations will be required for this project.

The quantity of offsets in pounds per year for NO<sub>x</sub> is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb. /year) = (Σ[PE2 – BE]) x DOR, for all new or modified emissions units in the project,

Where,

PE2 = Post-Project Potential to Emit, (lb. /year)

BE = Baseline Emissions, (lb. /year)

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

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 = HAE

As calculated in Section VII.C.6 above, the BE from this unit are equal to the PE1 since the unit is a Clean Emissions Unit.

Also, there is only one emissions unit associated with this project and there are no increases in cargo carrier emissions. Therefore offsets can be determined as follows:

**NO<sub>x</sub>:**

Offsets Required (lb. /year) = (PE2 – BE) x DOR

PE2 (NO<sub>x</sub>) = 4,617 lb. /year

BE (NO<sub>x</sub>) = 0 lb. /year

The project is a Federal Major Modification for NO<sub>x</sub>. Therefore the correct offset ratio for NO<sub>x</sub> is 1.5:1.

Offsets Required (lb. /year) = (4,617 – 0) x 1.5  
= 6,924.8 lb. NO<sub>x</sub>/year  
= 6,925 lb. NO<sub>x</sub>/year

Calculating the appropriate quarterly emissions to be offset is as follows:

Quarterly offsets required (lb. /qtr.) = (6,925 lb. NO<sub>x</sub>/year) ÷ (4 quarters/year)  
= 1,731.25 lb. /qtr.

As shown in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

Redistribution of Required Quarterly Offsets (where X is the annual amount of offsets, and $X \div 4 = Y.z$ )				
Value of z	Quarter 1	Quarter 2	Quarter 3	Quarter 4
.0	Y	Y	Y	Y
.25	Y	Y	Y	Y+1
.5	Y	Y	Y+1	Y+1
.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
S-1328-62-0	1,731	1,731	1,731	1,732
Total	1,731	1,731	1,731	1,732

The applicant has stated that the facility plans to use ERC certificate S-5016-2 to offset the increases in NO<sub>x</sub> emissions associated with this project. The above certificate has available quarterly NO<sub>x</sub> credits as follows:

	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
ERC #N-1444-2	2,234	2,234	2,234	2,234

As seen above, the facility has sufficient credits to fully offset the quarterly NO<sub>x</sub> emissions increases associated with this project.

**Proposed Rule 2201 (offset) Conditions:**

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender NO<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter – 1,731 lb., 2nd quarter - 1,731 lb., 3rd quarter - 1,731 lb., and 4th quarter - 1,732 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201]
- ERC Certificate Number N-1444-2 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

**SO<sub>x</sub>:**

Offsets Required (lb. /year) = (PE2 – BE) x DOR

PE2 (SO<sub>x</sub>) = 2,122 lb. /year

BE (SO<sub>x</sub>) = 0 lb. /year

Based on the original location of the emissions offsets being more than 15 miles from the new unit's Stationary Source the offset ratio is 1.5:1 and the amount of SO<sub>x</sub> ERCs that need to be withdrawn is:

$$\begin{aligned} \text{Offsets Required (lb. /year)} &= (2,122 - 0) \times 1.5 \\ &= 3,183.2 \text{ lb. SO}_x\text{/year} \\ &= 3,183 \text{ lb. SO}_x\text{/year} \end{aligned}$$

Calculating the appropriate quarterly emissions to be offset is as follows:

$$\begin{aligned} \text{Quarterly offsets required (lb. /qtr.)} &= (3,183 \text{ lb. SO}_x\text{/year}) \div (4 \text{ quarters/year}) \\ &= 795.75 \text{ lb. /qtr.} \end{aligned}$$

As shown in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

<b>Redistribution of Required Quarterly Offsets</b> (where X is the annual amount of offsets, and $X \div 4 = Y.z$ )				
Value of z	Quarter 1	Quarter 2	Quarter 3	Quarter 4
.0	Y	Y	Y	Y
.25	Y	Y	Y	Y+1
.5	Y	Y	Y+1	Y+1
.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
S-1328-62-0	795	796	796	796
Total	795	796	796	796

The applicant has stated that the facility plans to use ERC certificates N-1440-5 to offset the increases in SO<sub>x</sub> emissions associated with this project. The above certificates has available quarterly NO<sub>x</sub> credits as follows:

	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
ERC # N-1440-5	1,424	1,424	1,424	1,424
Total:	1,424	1,424	1,424	1,424

As seen above, the facility has sufficient credits to fully offset the quarterly SO<sub>x</sub> emissions increases associated with this project.

**Proposed Rule 2201 (offset) Conditions:**

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender SO<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter – 795 lb., 2nd quarter – 796 lb., 3rd quarter – 796 lb., and 4th quarter – 796 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201]
- ERC Certificate Numbers N-1440-5 (or a certificate(s) split from these certificate(s)) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

**PM Offset Calculations:**

Offsets Required (lb. /year) = (PE2 – BE) x DOR

PE2 (PM) = 2,234 lb. /year

BE (PM) = 0 lb. /year

Based on the original location of the emissions offsets being more than 15 miles from the new unit's Stationary Source the offset ratio is 1.5:1 and the amount of PM ERCs that need to be withdrawn is:

$$\begin{aligned}\text{Offsets Required (lb. /year)} &= (2,234 - 0) \times 1.5 \\ &= 3,350.7 \text{ lb. PM/year} \\ &= 3,351 \text{ lb. PM/year}\end{aligned}$$

Calculating the appropriate quarterly emissions to be offset is as follows:

$$\begin{aligned}\text{Quarterly offsets required (lb. /qtr.)} &= (3,351 \text{ lb. SO}_x\text{/year}) \div (4 \text{ quarters/year}) \\ &= 837.75 \text{ lb. /qtr.}\end{aligned}$$

As shown in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the



number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

<b>Redistribution of Required Quarterly Offsets</b> (where X is the annual amount of offsets, and $X \div 4 = Y.z$ )				
Value of z	Quarter 1	Quarter 2	Quarter 3	Quarter 4
.0	Y	Y	Y	Y
.25	Y	Y	Y	Y+1
.5	Y	Y	Y+1	Y+1
.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

	<u>1<sup>st</sup> Quarter</u>	<u>2<sup>nd</sup> Quarter</u>	<u>3<sup>rd</sup> Quarter</u>	<u>4<sup>th</sup> Quarter</u>
S-1328-62-0	837	838	838	838
Total	837	838	838	838

The applicant has stated that the facility plans to use ERC certificates N-1442-4 to offset the increases in PM emissions associated with this project. The above certificates has available quarterly PM credits as follows:

	<u>1<sup>st</sup> Quarter</u>	<u>2<sup>nd</sup> Quarter</u>	<u>3<sup>rd</sup> Quarter</u>	<u>4<sup>th</sup> Quarter</u>
ERC # N-1442-4	2,122	2,122	2,122	2,122
Total:	2,122	2,122	2,122	2,122

As seen above, the facility has sufficient credits to fully offset the quarterly PM emissions increases associated with this project.

**Proposed Rule 2201 (offset) Conditions:**

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender SO<sub>x</sub> emission reduction credits for the following quantity of emissions: 1st quarter – 837 lb., 2nd quarter – 838 lb., 3rd quarter – 838 lb., and 4th quarter – 838 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201]
- ERC Certificate Numbers N-1442-4 (or a certificate(s) split from these certificate(s)) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

VOC Offset Calculations:

$$\text{Offsets Required (lb. /year)} = (\text{PE2} - \text{BE}) \times \text{DOR}$$

$$\text{PE2 (VOC)} = 4,095 \text{ lb. /year}$$

$$\text{BE (VOC)} = 0 \text{ lb. /year}$$

The project is a Federal Major Modification for VOC and therefore the correct offset ratio for VOC is 1.5:1.

$$\begin{aligned} \text{Offsets Required (lb. /year)} &= (4,095 - 0) \times 1.5 \\ &= 6,143.0 \text{ lb. VOC/year} \end{aligned}$$

Calculating the appropriate quarterly emissions to be offset is as follows:

$$\begin{aligned} \text{Quarterly offsets required (lb. /qtr.)} &= (6,143.0 \text{ lb. PM10/year}) \div (4 \text{ quarters/year}) \\ &= 1,535.75 \text{ lb. /qtr.} \end{aligned}$$

As shown in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

<b>Redistribution of Required Quarterly Offsets</b>				
(where X is the annual amount of offsets, and $X \div 4 = Y.z$ )				
<b>Value of z</b>	<b>Quarter 1</b>	<b>Quarter 2</b>	<b>Quarter 3</b>	<b>Quarter 4</b>
.0	Y	Y	Y	Y
.25	Y	Y	Y	Y+1
.5	Y	Y	Y+1	Y+1
.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

	<u>1<sup>st</sup> Quarter</u>	<u>2<sup>nd</sup> Quarter</u>	<u>3<sup>rd</sup> Quarter</u>	<u>4<sup>th</sup> Quarter</u>
S-1328-62-0	1,535	1,536	1,536	1,536
Total	1,535	1,536	1,536	1,536

The applicant has stated that the facility plans to use ERC certificates S-4885-1 to offset the increases in VOC emissions associated with this project. The above certificates has available quarterly VOC credits as follows:

	<u>1<sup>st</sup> Quarter</u>	<u>2<sup>nd</sup> Quarter</u>	<u>3<sup>rd</sup> Quarter</u>	<u>4<sup>th</sup> Quarter</u>
ERC # S-5018-5	1,535	1,536	1,536	1,536
Total:	1,535	1,536	1,536	1,536

As seen above, the facility has sufficient credits to fully offset the quarterly VOC emissions increases associated with this project.

**Proposed Rule 2201 (offset) Conditions:**

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter – 1,535 lb., 2nd quarter – 1,536 lb., 3rd quarter – 1,536 lb., and 4th quarter – 1,536 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201]
- ERC Certificate Numbers S-4885-1 (or a certificate(s) split from these certificate(s)) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

**CO:**

Pursuant to section 4.6.1 of Rule 2201, increases in CO in attainment areas are exempt from offsetting if the applicant demonstrates to the satisfaction of the APCO, that the Ambient Air Quality Standards are not violated in the areas to be affected and such emissions will be consistent with Reasonable Further Progress and will not cause or contribute to a violation of Ambient Air Quality Standards. As shown below in section VII.F, Ambient Air Quality Standards are not violated; therefore, offsets are not required for CO.

**3. ERC Withdrawal Calculations**

The applicant must identify the ERC Certificate(s) to be used to offset the increase in emissions for the project. As indicated in previous section, the applicant is proposing to use ERC certificate # N-1444-2, N-1440-5, N-1442-4 and S-4885-1 to mitigate the increases in emissions associated with this project. See **Appendix G** for detailed ERC Withdrawal Calculations.

**C. Public Notification**

**1. Applicability**

Pursuant to District Rule 2201, Section 5.4, 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,
- d. Any project with an SSPE of greater than 20,000 lb./year for any pollutant, and/or
- e. Any project which results in a Title V significant permit modification

**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 Sections VII.C.7 and VII.C.8, this project is an SB 288 or Federal Major Modification. Therefore, public noticing for SB 288 or Federal Major Modification purposes is 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. As seen in Section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb./day for any pollutant, therefore public noticing for PE > 100 lb. /day purposes is not required.

**c. Offset Threshold**

Public notification is required if the pre-project Stationary Source Potential to Emit (SSPE1) is increased to a level exceeding the offset threshold levels. The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Thresholds				
Pollutant	SSPE1 (lb./year)	SSPE2 (lb./year)	Offset Threshold	Public Notice Required?
NO <sub>x</sub>	>20,000	>20,000	20,000 lb./year	No
SO <sub>x</sub>	>54,750	>54,750	54,750 lb./year	No
PM <sub>10</sub>	>29,200	>29,200	29,200 lb./year	No
CO	>200,000	>200,000	200,000 lb./year	No
VOC	>20,000	>20,000	20,000 lb./year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

**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>	390,360	384,403	5,957	20,000 lb./year	No
SO <sub>x</sub>	279,051	275,328	3,723	20,000 lb./year	No
PM <sub>10</sub>	281,214	275,555	5,659	20,000 lb./year	No
CO	1,245,715	1,231,940	13,775	20,000 lb./year	No
VOC	1,153,112	1,149,017	4,095	20,000 lb./year	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb./year; therefore public noticing for SSIPE purposes is not required.

**e. Title V Significant Permit Modification**

As shown in the Discussion of Rule 2520 below, this project does not constitute a Title V significant modification. Therefore, public noticing for Title V significant modifications is not required for this project.

**2. Public Notice Action**

As discussed above, this project will not result in emissions, for any pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will not 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.

**Proposed Rule 2201 (DEL) Conditions:**

- The unit shall only be fired on ethane-rich/natural gas with a maximum sulfur content of 1.0 gr S/100 scf. [District Rules 2201 and 4320]
- Except for periods of startup and shutdown, emissions from the natural gas-fired unit shall not exceed any of the following limits: 5 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.0062 lb.-NO<sub>x</sub>/MMBtu,

0.003 lb-PM10/MMBtu, 25 ppmvd CO @ 3% O2 or 0.0185 lb.-CO/MMBtu, or 0.055 lb.-VOC/MMBtu. [District Rules 2201, 4305, 4306, 4320 and 4801]

## **E. Compliance Assurance**

### **1. Source Testing**

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

### **2. Monitoring**

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

### **3. Recordkeeping**

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

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

- Permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [District Rule 2201 and 40 CFR 60.48c (g)]
- 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, 4320, and 40 CFR 60.48c (i)]

### **4. Reporting**

No reporting is required to demonstrate compliance with Rule 2201.

## **F. Ambient Air Quality Analysis (AAQA)**

Section 4.14 of District Rule 2201 requires that an AAQA be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a

violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to **Appendix D** of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NO<sub>x</sub>, CO, and SO<sub>x</sub>. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NO<sub>x</sub>, CO, or SO<sub>x</sub>.

The proposed location is in a non-attainment area for the state's PM<sub>10</sub> as well as federal and state PM<sub>2.5</sub> thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM<sub>10</sub> and PM<sub>2.5</sub>.

#### **H. Alternate Siting Analysis**

The current project occurs at an existing facility. The applicant proposes to install a 85 MMBtu/hr. natural gas, ethane-rich natural gas and/or thermally enhanced oil recovery (TEOR) gas-fired steam generator.

Since the project will provide steam to be used at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore result in a much greater impact.

#### **Rule 2410 Prevention of Significant Deterioration**

As shown in Section VII.C.9 above, this project does not result in a new PSD major source or PSD major modification. 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."

A minor permit modification is a permit modification that does not meet the definition of modification as given in Section 111 or Section 112 of the Federal Clean Air Act. Since this project involves the installation of a new emission unit that is subject to an NSPS requirement, the proposed project is considered to be a modification under the Federal Clean Air Act. As a result, 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 shall not implement the changes requested until the final permit is issued.

## **Rule 4001 New Source Performance Standards (NSPS)**

Steam generator S-2018-50-0:

### **40 CFR Part 60 Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units**

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subpart Dc applies to Small Industrial-Commercial-Institutional Steam Generators between 10 MMBtu/hr. and 100 MMBtu/hr. (post-6/9/89 construction, modification or, reconstruction). Subpart Dc has standards for SO<sub>x</sub> and PM<sub>10</sub>. The 85 MMBtu/hr steam generators are subject to Subpart Dc requirements.

#### **60.42c – Standards for Sulfur Dioxide**

Since coal is not combusted by the steam generators in this project, the requirements of this section are not applicable.

#### **60.43c – Standards for Particulate Matter**

The steam generators do not fired on coal, combust mixtures of coal with other fuels, combust wood, combust mixtures of wood with other fuels, or oil; therefore, it will not be subject to the requirements of this section.

#### **60.44c – Compliance and Performance Tests Methods and Procedures for Sulfur Dioxide.**

Since the steam generators in this project are not subject to the sulfur dioxide requirements of this subpart, no testing to show compliance is required. Therefore, the requirements of this section are not applicable to the steam generators in this project.

#### **60.45c – Compliance and Performance Test Methods and Procedures for Particulate Matter**

Since the steam generators in this project are not subject to the particulate matter requirements of this subpart, no testing to show compliance is required. Therefore, the requirements of this section are not applicable to the steam generator in this project.

#### **60.46c – Emission Monitoring for Sulfur Dioxide**

Since the steam generators in this project is not subject to the sulfur dioxide requirements of this subpart, no monitoring is required. Therefore, the requirements of this section are not applicable to the steam generators in this project.



### **60.47c – Emission Monitoring for Particulate Matter**

Since the steam generators in this project is not subject to the particulate matter requirements of this subpart, no monitoring is required. Therefore, the requirements of this section are not applicable to the steam generators in this project.

### **60.48c – Reporting and Recordingkeeping Requirements**

Section 60.48c (a) states that the owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

- (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

*The design heat input capacity and type of fuel combusted at the facility will be listed on the unit's equipment description. No conditions are required to show compliance with this requirement.*

- (2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel mixture of fuels under §60.42c or §40.43c.

*This requirement is not applicable since the unit is not subject to §60.42c or §40.43c.*

- (3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

*The facility has not proposed an annual capacity factor; therefore one will not be required.*

- (4) Notification if an emerging technology will be used for controlling SO<sub>2</sub> emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator

*This requirement is not applicable since the unit will not be equipped with an emerging technology used to control SO<sub>2</sub> emissions.*

District Rule 4001, §3.0 defines the Administrator as the APCO of the District. The following condition ensures compliance:

- 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)]

Section 60.48c (g) states that the owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day. The following conditions will be added to the permit to ensure compliance with this section.

- A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rule 2201 and 40 CFR 60.48c (g)]
- Permittee shall maintain daily records of the type and quantity of fuel combusted by the steam generator. [District Rule 2201 and 40 CFR 60.48c (g)]

Section 60.48c (i) states that all records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record. District Rule 4320 requires that records be kept for five years. Compliance is ensured with the following condition:

- 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, 4320, and 40 CFR 60.48c (i)]

#### **Rule 4101 Visible Emissions**

Rule 4101 states that 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). As the steam generator is fired on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Compliance 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.

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 D**), 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.