San Joaquin Valley
Air Pollution Control District

APR 1010
Authority to Construct Application Review Format

Approved By:	Signed Brian Clements Director of Permit Services	Date: Version:	February 27, 2024 2024-1a

The purpose of this policy is to provide a guide for a standardized application review for any Authority to Construct permitting project deemed complete as of the date identified above, in a format consistent with District Rule 2201 (New and Modified Stationary Source Review Rule).

This document illustrates the components necessary for a complete and well written engineering evaluation. The elements have been arranged in a logical order that:

- groups related topics together,
- presents calculations in a logical order,
- eliminates forward references,
- demonstrates that the proposal complies with applicable District Rules,
- addresses the latest revisions to District Rule 2201, and
- demonstrates that the proposal complies with applicable state and federal rules.

The main sections and subsections include subject headings, written explanations, example statements, example calculations, and tables, as appropriate, that each clarify the intent of the section in which they appear. While most evaluations will include all of the main sections represented, all evaluations must be custom tailored to include the appropriate subsections, equations, tables and Rule discussions as identified on a case-by-case basis. The tables, equations and many of the discussions have been designed to, and can be copied, modified as appropriate, and used in actual evaluations. Further, minor application review formatting may be adjusted to individual style as long as the entire application review follows that style consistently.

As part of streamlining for expedited review, those approved specific application review templates must be used.

APR 1010 Change Log

Version 2020-1	October 01, 2020	- Change Federal Major Mod Section
		  o Add discussion regarding BAE, AE, FOQ
		- Add new discussion of New Major Source
		- Add new section under District Offset calculation:
		  o NOx and VOC Surplus at The Time of Use

Version 2020-2	November 01, 2020	- Change Federal Major Mod Section o Add SLC discussion - Revised examples in the Offset Calculation section
Version 2020-3	December 07, 2020	- Add comments regarding Fugitive Emissions for Major Mod Calculation purposes - Revise offset discussion NSR vs Federal requirements
Version 2021-4	January 05, 2021	- Added further discussion on FMM and NMS section - Adjusted FMM section to address fugitive emissions: in discussion with EPA – Talk to manager and director - Changed offset section to address Offset Equivalency Requirements: District Offsets and Federal Offsets
Version 2023-5	July 17, 2023	- Added PM2.5 federal offset sanctions section

Version 2023-1a	August 9, 2023	- Split APR-1010 into two versions
		  a - Any source/project
		  b - Minor sources and no offsets triggered
		- Address August 9th, 2023 effective date of Rule 2201 amendment
		- Updated FOQ analyses
		- Added Federal Offset Equivalency Demonstration
		- Added federal land management visibility modeling analysis requirements for new major sources and federal major modifications
		- Public Noticing for facility exceeding 80% of major source threshold
		- Routine replacements of entire emissions units at major sources (may now constitute a federal major modification)
		- Other minor updates

Version 2023-1b (minor sources)	August 9, 2023	- Split APR-1010 into two versions
		  a - Any source/project
		  b - Minor sources and no offsets triggered
		- Address August 9th, 2023 effective date of Rule 2201 amendment
		- Public Noticing for project exceeding 80% of major source threshold
		- Updated FOQ discussion
		- Added Federal Offset Equivalency Demonstration
		- Other minor updates

Version 2023-2a	December 20, 2023	- Removed PM2.5 federal offset sanctions section for projects finalized after 12/20/23
Version 2024-1a	February 27, 2024	- Minor formatting updates - Updated CEQA section

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Type of Project

Facility Name:	Date:
Mailing Address:	Engineer:
	Lead Engineer:
Facility Contact Person :	
Contact Telephone:	
Contact E-Mail:	
Application #(s):	
Project #:	
Date Deemed Complete:	

I. Proposal

Cite the facility name and describe the proposal in general detail. Include the relevant history as necessary. Identify the proposed equipment and/or modification(s) and (when applicable) briefly describe how the existing equipment will be affected.

Example (a): (For a new permit unit.)
XYZ Company has requested an Authority to Construct (ATC) permit for the installation of a 45.4 MW peaking power plant powered by a General Electric (GE) LM-6000 Gas Turbine. The LM-6000 will be installed in a simple-cycle configuration and equipped with water injection technology, a Selective Catalytic Reduction (SCR) System, and an Oxidation Catalyst. The draft ATC(s) are included in Appendix XXX.

Example (b): (For a modified permit unit.)
The primary business of ABC Ice Cream is the manufacturing of ice cream and frozen desserts. ABC has submitted an Authority to Construct (ATC) application for the following:

- Retrofit existing 19.9 MMBtu/hr Hurst boiler (S-XXX-X-X) (see Appendix XXX for current permit requirements) currently equipped with an Industrial Combustion Model LNDG30 natural gas-fired burner, with an Alzeta Corporation Model CSB22 natural gas-fired burner. The facility is proposing to retrofit their existing burner with a lower NOx burner for compliance with the recently issued Rule 4306.

Disposition of Outstanding ATCs (if needed, otherwise delete)
ATC S-XXXX has been implemented and serves as the base document. Current PTO S-XXXX and ATC S-XXXX are included in Appendix XXX.

Also (when applicable) discuss whether the facility is a Title V facility, and address the Certificate of Conformity (COC) process.

Example (a): (Without COC – Title V Minor Modification)
XYZ Company received their Title V Permit on XXXXX. This modification can be classified as a Title V minor modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). But the facility has not requested that this project be processed in that manner; therefore, XYZ Company will be required to submit a Title V minor modification application prior to operating under the revised provisions of the ATC(s) issued with this project.

Example (b): (Without COC – Title V Significant Modification)
XYZ Company received their Title V Permit on XXXXX. 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). But the facility has not requested that this project be processed in that manner; therefore, XYZ Company will be required to submit a Title V significant modification application and receive a revised permit prior to operating under the revised provisions of the ATC(s) issued with this project.

Example (c): (With COC – Title V Minor Modification)
XYZ Company received their Title V Permit on XXXXX. This modification can be classified as a Title V minor 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. XYZ Company must apply to administratively amend their Title V permit.

Example (d): (With COC – Title V Significant Modification)
XYZ Company received their Title V Permit on XXXXX. 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. XYZ Company must apply to administratively amend their Title V permit.

II. Applicable Rules

List applicable rules including the rule number, rule title and the date upon which the rule was adopted or most recently amended, including any other applicable regulation, such as CH&SCs. Also, list any potentially applicable rules that may need further discussion as to why they do or do not apply. All rules listed here shall be discussed in Section VIII (Compliance) below.

For example: (For a boiler.)

Rule 2201	New and Modified Stationary Source Review Rule (4/20/23)
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 (12/17/20)

Rule 4320	Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr (12/17/20)
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

Indicate the actual location of this project including the street address. Use Universal Transverse Meridian (UTM) coordinates, a descriptive location, or Mount Diablo Base Meridian location (section, township, and range) if street address is not practical. Verify whether or not the equipment is or will be located within 1,000 feet of the nearest outer boundary of a K-12 school. State this in the EE.

Example (a): (With a street address.)
The facility is located at 1990 E Gettysburg in Fresno, CA. 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.

Example (b): (With a Mount Diablo Base Meridian Location.)
The equipment will be located at the 31X oil and water treatment plant in the Cymric Oil Field, within the SW/4 of Section 31, Township 29S, Range 21E. 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.

Example (c): (With a descriptive location.)
The site is located on the eastern side of 25th Avenue, approximately one mile south of State Route (SR) 198, in Kings County. 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

Identify the major business of the facility. Describe the proposed equipment; explain what it does and how it fits into the facility operation. Include relevant operational data.

V. Equipment Listing

Describe the equipment to be permitted in detail. Include maximum rating, fuel type, manufacturer, model number, control equipment and any relevant related equipment. Include the serial number only if necessary.

Example (a): (For new permit units (boilers, engines, etc.), include the equipment that is being installed.)

C-XXX-X-X: 32.7 MMBTU/HR CLEAVER-BROOKS MODEL CBLE 700-800-150ST NATURAL GAS-FIRED BOILER WITH LOW-NOX BURNER AND FLUE GAS RECIRCULATION (FGR) SYSTEM.

Example (b): (For modified permit units (boilers, engines, etc.), include the pre-project equipment description, the proposed modification and/or ATC equipment description, and the final equipment description, as it will appear on the post-project PTO.)

Pre-Project Equipment Description:

C-XXX-X-X: PASTE EQUIPMENT DESCRIPTION FROM CURRENT PTO HERE

Proposed Modification:

Remove MAC baghouse, split the Saunco baghouses into separate units, retrofit one Saunco into a reverse pulse baghouse, increase throughput to 763 tons per day, and revise PM10 emission factor to 0.065 lb PM10/ton.

(Note: The equipment description on the proposed draft ATC(s) should include the current permit description along with the proposed modification as follows:)

C-XXX-X-X: MODIFICATION OF ALMOND HULLING FACILITY SERVED BY TWO SAUNCO MODEL #3-32 BAGHOUSES AND ONE MAC MODEL 4MTF-16 REVERSE PULSE FILTERS SERVING THE FLUIDIZER: REMOVE MAC BAGHOUSE, SPLIT THE SAUNCO BAGHOUSES INTO SEPARATE UNITS, RETROFIT ONE SAUNCO INTO A REVERSE PULSE BAGHOUSE, INCREASE THROUGHPUT TO 763 TONS PER DAY, AND REVISE PM10 EMISSION FACTOR TO 0.065 LB PM10/TON

Post-Project Equipment Description:

C-XXX-X-X: ALMOND HULLING AND SHELLING OPERATION CONSISTING OF NINE (9) STAGES OF SHEAR ROLLING AND HARDSHELL CRACKING EQUIPMENT AND ASSOCIATED AUGERS, BUCKET ELEVATORS, AND CONVEYORS SERVED BY A SAUNCO MODEL 3-32 SHAKER BAGHOUSE AND AIRLEG ASPIRATORS, TWO (2) GRAVITY TABLES AND A FLUIDIZER SERVED BY A WSM MODEL 144TLR462 PULSE-JET BAGHOUSE

In addition, list any equipment not identified above that deserves special attention in the EE; for example, list any conveyors or other emissions points that release emissions for which discussion is warranted.

VI. Emission Control Technology Evaluation

Describe the nature of the emissions and identify the proposed control equipment. Explain how the control equipment works and/or what it does. Include the design review of the control equipment if necessary, including calculations such as air to cloth ratios, cyclone design and flow rates, capture and control efficiencies, maximum ratings, etc.

Example (a): (For a boiler.)
Emissions from natural gas-fired boilers include NOx, CO, VOC, PM10, and SOx.

NOx is the major pollutant of concern when burning natural gas. NOx formation is either due to thermal fixation of atmospheric nitrogen in the combustion air (thermal NOx) or due to conversion of chemically bound nitrogen in the fuel (fuel NOx). Due to the low fuel nitrogen content of natural gas, nearly all NOx emissions are thermal NOx. Formation of thermal NOx 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 NOx 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 NOx.

Example (b): (For a baghouse.)
Particulate matter less than 10 microns in aerodynamic diameter (PM10) is the only pollutant of concern emitted from the almond sorting and packaging operation. A baghouse dust collector controls emission points for the entire facility. The baghouse is expected to have a control efficiency of 99% if properly designed.

Design check calculations:

Air Flow Calculations for the baghouse dust collector:

The total cloth area for the baghouse is 3,000 ft^2. This baghouse also utilizes a mechanical shaker to clean the bags at regular intervals.

Airflow:	10,900 ft^3/min (per Applicant)
Air/Cloth Ratio:	= Air Flow Rate ÷ Cloth Area
	= 10,900 cfm ÷ 3,500 ft^2 = 3.11 ft/min

According to the Air Pollution Control Manual (1992), p. 128, Table 5, typical air/cloth ratio for shaker filters range from 2.0 – 3.5. The calculated air/cloth ratio falls within the range of typical values; therefore proper control efficiencies are expected.

(Note: For well-known control technologies, the emission control technology evaluation of how they work may be concise. And for certain control technologies like baghouses and cyclones, a design check may be necessary.)

VII. General Calculations

A. Assumptions

List all assumptions necessary to complete the calculations, citing the source of each assumption. General assumptions include (but are not limited to) F factors, heating values, densities, efficiencies, and operating schedules.

If the source has PM10 emissions include the following:
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

Cite the source of the emission factors and include as an appendix (as necessary).
(i.e. AP-42 (10/96), Table 1.4-1, mfr specifications, or Rule requirement)

For example: (For a diesel-fired IC engine.)
For the new diesel-fired IC engine, the emissions factors for NOx, CO, VOC, and PM10 are provided by the applicant and are guaranteed by the engine manufacturer. The SOx emission factor is calculated using the sulfur content in the diesel fuel (0.0015% sulfur).

Diesel-fired IC Engine Emission Factors		
Pollutant	**g/bhp·hr**	**Source**
NOx	5.89	Engine Manufacturer
*SOx	0.0051	Mass Balance Equation Below
PM10	0.1	Engine Manufacturer
CO	3.55	Engine Manufacturer
VOC	0.73	Engine Manufacturer

$$* \frac{0.000015\ lb \cdot S}{lb \cdot\ fuel} \times \frac{7.1\ lb \cdot\ fuel}{gallon} \times \frac{2\ lb \cdot SO_2}{1\ lb \cdot S} \times \frac{1\ gal}{137{,}000\ Btu} \times \frac{1\ hp\ input}{0.35\ hp\ out} \times \frac{2{,}542.5\ Btu}{hp \cdot hr} \times \frac{453.6\ g}{lb} = 0.0051 \frac{g \cdot SOx}{hp \cdot hr}$$

(Note: Depending on the type of project, it may be necessary to include pre-project and post project emission factors.)

C. Calculations

Perform and clearly label all emission calculations for each pollutant for every emissions unit and every permit unit. Also consider any other District Policy which may apply to the calculations performed (i.e. APR 1130 – Increases in Maximum Daily Permitted Emissions of Less than 0.5 lb/day).

1. Pre-Project Potential to Emit (PE1)

Calculate the daily and annual emissions for each emissions unit and/or each permit unit in the project. Use tables wherever practical. If this is a new emissions unit, state that there is no PE1.

(Note: BACT is triggered on an emissions unit-by-emissions unit basis; therefore, it is important to calculate emissions for each individual emissions unit.)

Example (a): (For a new permit unit, which is a single emissions unit.)
Since this is a new emissions unit, PE1 = 0 for all pollutants.

Example (b): (For a modified permit unit, which is a single emissions unit.)
The potential to emit for the operation is calculated as follows, and summarized in the table below:

PE1 = (30 tons of material/hour) ∗ (0.0118 lb PM10/ton of material) ∗ (24 hours/day)
= 8.5 lb PM10/day

PE1 = (30 tons/hour) ∗ (0.0118 lb PM10/ton) ∗ (24 hours/day) ∗ (365 day/year)
= 3,103 lb PM10/year

PE1		
Pollutant	**Daily Emissions (lb/day)**	**Annual Emissions (lb/year)**
NOx	0	0
SOx	0	0
PM10	8.5	3,103
CO	0	0
VOC	0	0

Example (c): (For a modified permit unit, with multiple emissions units.)
The potential to emit for the operation is calculated as follows, and summarized in the table below:

C-XXXX-X-X:

$PE1_{Almond\ Pre\text{-}cleaning} = PE1_{Saunco\ Baghouse} + PE1_{Mac\ Baghouse}$

Saunco Model RA12 Baghouse:

PE_1 = 840 tons/day ∗ 0.046 lb PM10/ton
= 38.6 lb PM10/day

PE_1 = 105,688 tons/year ∗ 0.046 lb PM10/ton
= 4,862 lb PM10/year

Mac Model 144MCF Baghouse:

PE_1 = 840 tons/day ∗ 0.036 lb PM10/ton
= 30.2 lb PM10/day

PE_1 = 105,688 tons/year ∗ 0.036 lb PM10/ton
= 3,805 lb PM10/year

PE1		
Pollutant	**Daily Emissions (lb/day)**	**Annual Emissions (lb/year)**
NOx	0	0
SOx	0	0
PM10	68.9	8,667
CO	0	0
VOC	0	0

2. Post-Project Potential to Emit (PE2)

Calculate the daily and annual emissions for each emissions unit and/or each permit unit in the project. Use tables wherever practical.

For example: (For a boiler.)
The potential to emit for the boiler is calculated as follows, and summarized in the table below:

$PE2_{NOx}$ = (0.036 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day)
= 86.4 lb NOx/day

= (0.036 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day) ∗ (365 day/year)
= 31,536 lb NOx/year

$PE2_{SOx}$ = (0.003 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day)
= 7.2 lb SOx/day

= (0.003 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day) ∗ (365 day/year)
= 2,628 lb SOx/year

$PE2_{PM10}$ = (0.0076 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day)
= 18.2 lb PM10/day

= (0.0076 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day) ∗ (365 day/year)
= 6,658 lb PM10/year

$PE2_{CO}$ = (0.0385 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day)
= 92.4 lb CO/day

= (0.0385 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day) ∗ (365 day/year)
= 33,726 lb CO/year

$PE2_{VOC}$ = (0.0055 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day)
= 13.2 lb VOC/day

= (0.0055 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day) ∗ (365 day/year)
= 4,818 lb VOC/year

PE2		
Pollutant	**Daily Emissions (lb/day)**	**Annual Emissions (lb/year)**
NOx	86.4	31,536
SOx	7.2	2,628
PM10	18.2	6,658

CO	92.4	33,726
VOC	13.2	4,818

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

Calculate the SSPE1 for the entire facility. SSPE1 is used for Major Source, offsetting, public notice, and BACT purposes.

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, including all ERCs held as certificates and all emission reduction credits sold or transferred.

Example (a): (For a new facility.)
Since this is a new facility, there are no valid ATCs, PTOs, or ERCs at the Stationary Source; therefore, the SSPE1 is equal to zero.

Example (b): (For an existing facility – with a few permit units and no ERC credits that have been banked at the source and which have not been used on-site.)

SSPE1 (lb/year)					
Permit Unit	**NOx**	**SOx**	**PM10**	**CO**	**VOC**
C-XXXX-1-0	3,540	200	360	2,210	900
C-XXXX-2-0	0	0	4,000	0	0
SSPE1	**3,540**	**200**	**4,360**	**2,210**	**900**

Example (c): (For an existing facility – with a few permit units and ERC credits that have been banked at the source and which have not been used on-site.)
The SSPE1 can be calculated by adding the PE1 from all units with valid ATCs or PTOs and the sum of the ERCs that have been banked at the source and which have not been used on-site ($Total_{ERC}$).

$SSPE1_{Total} = SSPE1_{Permit\ Unit} + Total_{ERC}$

SSPE1 (lb/year)					
Permit Unit/ERC	**NOx**	**SOx**	**PM10**	**CO**	**VOC**
C-XXXX-1-0	3,540	200	360	2,210	900
C-XXXX-2-0	0	0	4,000	0	0
$SSPE1_{Permit\ Unit}$	3,540	200	4,360	2,210	900
ERC C-XXX-1	-	-	-	-	4,355

ERC C-XXX-2	6,875	-	-	-	-
$Total_{ERC}$	6,875	-	-	-	4,355
SSPE1	**10,415**	**200**	**4,360**	**2,210**	**5,255**

Example (d): (For an existing facility – with multiple permit units.)
The SSPE1 is calculated in Appendix XXX and presented in the following table.

SSPE1 (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE1	25,450	6,081	28,326	8,087	21,064

(Note: The table in **Appendix F** should look similar to the table in example (b) or (c) above.)

Example (e): (For an existing facility – with multiple permit units – conceding that the facility is already a Major Source for VOC.)
Facility emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE1 calculations are not necessary.

(Note: Please use this example carefully. If there are increases in emissions of other pollutants, for which the facility is not a Major Source, complete SSPE calculations may be necessary. Hint: The Initial Title V application may be a possible source to determine which pollutants the facility is a Major Source for.)

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

Calculate the SSPE2 for the entire facility. The SSPE2 is used for Major Source, offsetting, public notice, and BACT purposes.

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source, except for emissions units proposed to be shut down as part of a Stationary Source Project, 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, including all ERCs held as certificates and all emission reduction credits sold or transferred.

Example (a): (For a facility – with a few permit units and no ERC credits that have been banked at the source and which have not been used on-site.)

SSPE2 (lb/year)					
Permit Unit	**NOx**	**SOx**	**PM10**	**CO**	**VOC**
C-XXXX-1-0	3,540	200	360	2,210	900

C-XXXX-2-0	0	0	4,000	0	0
C-XXXX-3-0 (new)	467	150	364	208	491
SSPE2	**4,007**	**350**	**4,724**	**2,418**	**1,391**

Example (b): (For a facility – with a few permit units and ERC credits that have been banked at the source and which have not been used on-site.)

The SSPE2 can be calculated by adding the PE2 from all units with valid ATCs or PTOs and the sum of the ERCs that have been banked at the source and which have not been used on-site ($Total_{ERC}$).

$SSPE2_{Total} = SSPE2_{Permit\ Unit} + Total_{ERC}$

SSPE2 (lb/year)					
Permit Unit/ERC	**NOx**	**SOx**	**PM10**	**CO**	**VOC**
C-XXXX-1-0	3,540	200	360	2,210	900
C-XXXX-2-0	0	0	4,000	0	0
$SSPE2_{Permit\ Unit}$	3,540	200	4,360	2,210	900
ERC C-XXX-1	-	-	-	-	4,355
ERC C-XXX-2	6,875	-	-	-	-
$Total_{ERC}$	6,875	-	-	-	4,355
SSPE2	**10,415**	**200**	**4,360**	**2,210**	**5,255**

Example (c): (For a facility – with multiple permit units.)

The SSPE2 is calculated in Appendix G and presented in the following table.

SSPE2 (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE2	4,007	350	4,724	2,418	1,391

*(Note: The table in **Appendix G** should look similar to the table in example (a) or (b) above.)*

Example (d): (For an existing facility – with multiple permit units – conceding that the facility is already a Major Source for VOC.)

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:

Identify if the source will be a Major Source for Rule 2201 (post project).

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), pursuant to the Clean Air Act, Title 3, Section 302, US Codes 7602(j) and (z)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 70.2

Example (a):(For a post project Non-Major Source.)

Rule 2201 Major Source Determination (lb/year)						
	NOx	**SOx**	**PM10**	**PM2.5**	**CO**	**VOC**
SSPE1	XXX	XXX	XXX	XXX	XXX	XXX
SSPE2	XXX	XXX	XXX	XXX	XXX	XXX
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No	No

Note: PM2.5 assumed to be equal to PM10

As seen in the table above, the facility is not an existing Major Source and is not becoming a Major Source as a result of this project.

Example (b): (For a post project Major Source: minor source becoming Major Source.)

Rule 2201 Major Source Determination (lb/year)						
	NOx	**SOx**	**PM10**	**PM2.5**	**CO**	**VOC**
SSPE1	XXX	XXX	XXX	XXX	XXX	XXX
SSPE2	XXX	XXX	XXX	XXX	XXX	XXX
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	No	No	No

Note: PM2.5 assumed to be equal to PM10

As seen in the table above, the facility is not an existing Major Source for any pollutant; however, is becoming a Major Source for NOx emissions as a result of this project.

Example (c): *(For an existing facility – conceding that the facility is already a Major Source for VOC, and there is no increase in emissions of any other pollutant.)*

This source is an existing Major Source for VOC emissions and will remain a Major Source for VOC. No change in other pollutants are proposed or expected as a result of this project.

Rule 2410 (Prevention of Significant Deterioration) Major Source Determination:

In determining if a stationary source is an existing (pre-project) PSD major source, only the emission thresholds below are considered. To make this determination, compare the facilities emissions before the project with the applicable thresholds. This determination is made for all regulated NSR pollutants (attainment and non-attainment pollutants). Whether or not the facility has a PSD permit is not relevant.

A source is a PSD major source if it has the potential to emit above the thresholds listed below for at least one pollutant. Please note for purposes of Rule 2410, major source determinations do not apply on a pollutant by pollutant basis.

If the facility's emissions before the project are above the thresholds for ANY pollutant the facility is a PSD major source. Once that determination has been made for any one pollutant, it is not necessary to determine the facility emissions for any other pollutant.

In determining if a stationary source is a PSD major source, the following sources of emissions shall be excluded in determining if a source is a PSD major 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 52.21 (b)(1)(iii), see below

All emission calculations are performed in US short tons/year, not metric tons.

For oil and gas production activities, the traditional stationary source definition shall be used; the area wide stationary source definition shall not be used.

Please note that in the calculations below, PM emissions may be assumed to be equal to PM10 (particulate matter less than 10 microns in diameter) emissions depending on the emission units at the facility. For combustion sources, all PM is equal to PM10. This assumption will need to be stated in the evaluation.

If this assumption is not accurate for a given emission stationary source type, then separate calculations are required for PM and PM10.

Units: Please note that all numbers in the PSD related sections below are in short tons.

Source Type Categories as specified in 40 CFR 52.21 (b)(1)(iii)

Common Source types in the District are in **bold**:

a. Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input,
b. coal cleaning plants (with thermal dryers),
c. kraft pulp mills,
d. portland cement plants,
e. primary zinc smelters,
f. iron and steel mill plants,
g. primary aluminum ore reduction plants (with thermal dryers),
h. primary copper smelters,
i. municipal incinerators capable of charging more than 250 tons of refuse per day,
j. hydrofluoric, sulfuric, and nitric acid plants,
k. petroleum refineries,
l. lime plants,
m. phosphate rock processing plants,
n. coke oven batteries,
o. sulfur recovery plants,
p. carbon black plants (furnace process),
q. primary lead smelters,
r. fuel conversion plants,
s. sintering plants,
t. secondary metal production plants,
u. chemical process plants (which does not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140),
v. **fossil-fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input**,
w. petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels,
x. taconite ore processing plants,
y. glass fiber processing plants, and
z. charcoal production plants;

Please note that if the main function of a stationary source type is not listed above, but the stationary source includes process or equipment that are included above (e.g. fossil fuel fired boilers totaling more than 250 MMBtu/hr), the major source threshold for that process or equipment is 100 ton/year. If the emissions from a listed source category are less than 100 ton/year, then the 250 tpy threshould applies for all operations at the stationary source.

Facility or equipment evaluated under this project listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii)
Please use the following section: otherwise delete.

Example (a):
The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 100 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO_2	VOC	SO_2	CO	PM*	PM10
Estimated Facility PE before Project Increase	XX	XX	XX	XX	XXX	XX
PSD Major Source Thresholds	100	100	100	100	100	100
PSD Major Source?	No	No	No	No	No	No

*PM assumed to be equal to PM10.

Please note once it is determined that a facility is a PSD major source for one pollutant, it is not necessary to determine if the facility is also a PSD major source for any other pollutants.

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

OR

Example (b):
As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

OR

Facility or equipment evaluated under this project is **NOT** listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii)
Please use the following section: otherwise delete

Example (c):
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_2	VOC	SO_2	CO	PM*	PM10
Estimated Facility PE before Project Increase	XX	XX	XX	XX	XXX	XX
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	No	No	No	No	No

*PM assumed to be equal to PM10.
Please note once it is determined that a facility is a PSD major source for one pollutant, it is not necessary to determine if the facility is a PSD major source for any other pollutants.

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

OR

Example (d):
As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the Quarterly Net Emissions Change (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.

Example (a): (For a Non-Major Source for all pollutants – Where the project includes a new emissions unit and a modified emissions unit.)
As shown in Section VII.C.5 above, the facility is not a Major Source for any pollutant.

Therefore BE = PE1.

C-XXXX-2-1:
As calculated in Section VII.C.1 above, PE1 is summarized in the following table:

BE (lb/year)						
	NOx	**SOx**	**PM10**	**PM2.5**	**CO**	**VOC**
C-XXXX-2-1	31,536	2,628	6,658	6,658	33,726	4,818

C-XXXX-3-0:
Since this is a new emissions unit, BE = PE1 = 0 for all pollutants.

Example (b): (For a Major Source – NOx only – Where the unit is a Clean Emissions Unit.)

a. BE NOx

Unit Located at a Non-Major Source
As shown in Section VII.C.5 above, the facility is a major source for NOx emissions.

Highly-Utilized Emissions Unit, located at a Major Source
Rule 2201 defines a Highly Utilized Emissions Unit as "an emissions unit for which the average annual Actual Emissions during the 24 consecutive months immediately prior to filing of an application for an Authority to Construct were equal to or greater than 80% of the unit's pre-project Potential to Emit." Since the application was filed in January 6, 2023, the District will use information from the two years prior that date, to establish Actual Emissions from the unit.

In compliance with the determining Historical Actual Emissions (HAE), the applicant has provided the annual fuel usage for this unit for 2021 and 2022 (i.e. two years prior to the application). The District will also use NOx source test results from the 2021 and 2022 source tests for the unit to establish the HAE.

HAE:

Throughput	Source test Results
2021: 504,659 MMBtu/year	2021: 0.009 lb NOx/MMBtu
2022: 489,335 MMBtu/year	2022: 0.011 lb NOx/MMBtu
(avg): 496,997 MMBtu/year	(avg): 0.010 lb NOx/MMBtu

2021 HAE
504,659 MMBtu/year x 0.009 lb NOx/MMBtu = 4542 lb NOx/yr

2022 HAE
489,335 MMBtu/year x 0.011 lb NOx/MMBtu = 5283 lb NOx/yr

Average HAE = (4542 + 5283)/2
= 4913 lb NOx/hr

PE1 for this unit was 10,512 lb NOx/year, calculated in Section VII.C.1 above. The HAE for NOx only represents 47% of the unit's pre-project PE. Therefore, this unit is not considered as a Highly Utilized Emissions Unit for NOx emissions.

Fully-Offset Emissions Unit, located at a Major Source
Offsets have not previously been provided for this permit unit. Therefore, pursuant to District Rule 2201, this permitted unit is not considered as a Fully-Offset Emissions Unit.

Clean Emissions Unit, Located at a Major Source
Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

This emissions unit is equipped with an ultra low NOx burner, which meets the requirements for achieved-in-practice BACT. Therefore, BE=PE1.

BE = PE1 = (0.012 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day) ∗ (365 day/year)
= 10,512 lb NOx/year

b. BE SO_X

Unit Located at a Non-Major Source
As shown in Section VII.C.5 above, the facility is not a major source for SO_X emissions.

Therefore Baseline Emissions BE=PE1.

BE = PE1 = (0.003 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day) ∗ (365 day/year)
= 2,628 lb SO_X/year

c. BE PM10

Unit Located at a Non-Major Source
As shown in Section VII.C.5 above, the facility is not a major source for PM10 emissions.

Therefore BE=PE1.

BE = PE1 = (0.0076 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day) ∗ (365 day/year)
= 6,658 lb PM10/year

d. BE CO

Unit Located at a Non-Major Source
As shown in Section VII.C.5 above, the facility is not a major source for CO emissions.

Therefore BE=PE1.

BE = PE1 = (0.0385 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day) ∗ (365 day/year)
= 33,726 lb CO/year

e. BE VOC

Unit Located at a Non-Major Source
As shown in Section VII.C.5 above, the facility is not a major source for VOC emissions.

Therefore BE=PE1.

BE = PE1 = (0.0055 lb/MMBtu) ∗ (100 MMBtu/hr) ∗ (24 hr/day) ∗ (365 day/year)
= 4,818 lb VOC/year

7. Senate Bill 288 Major Modification

Please note that for purposes of SB 288 major modification and Major source determinations the federal definition of stationary source shall be used. The "area wide" definition of oil and gas production stationary source in Rule 2201 shall not be used.

The determination of whether various new or modified emission units are part of the same project is to be performed on a case by case basis. In general, to be part of the same project, the new and modified emission units must be part of a coordinated effort by the facility for a common purpose and occur within a reasonable amount of time. Please note that in this context, the term project has no relation to the project number assigned by the District to individual groups of applications.

For additional guidance on implementation of the requirements for SB 288 and Federal Major Modifications, please see policy APR 1150 at: http://www.valleyair.org/busind/policies_idx.htm

A Senate Bill (SB) 288 Major Modification is a federal major modification under 40 CFR 51.165 as it existed on December 19, 2002. 40 CFR Part 51.165 (12/19/02) defines a Major Modification as any physical change in or change in the method of operation of *an existing major stationary source* that would result in a significant net emissions increase of any pollutant subject to regulation under the Act.

If the facility is not a major source for any of the pollutants addressed in this project:
Per section VII.C.5 above, this facility is not a major source for any of the pollutants addressed in this project. Thus, this project does not constitute an SB 288 major modification and no further discussion is required.

If the facility is a major source for one or more of the pollutants addressed in this project, **calculate only** the emissions for which the source is major.
Per section VII.C.5 above, this facility is a major source for (x-pollutant). Thus, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if further SB 288 Major Modification calculation is required. Note that any emissions increases of 0.5 lb/day or less round to zero for NSR purposes.

For a project authorizing new or modified **non-road engines**, use the following paragraph, otherwise delete.
Non-road engines shall not be considered in determining whether a project is an SB 288 Major Modification. The Federal CAA reserves the regulation of non-road engines to Title II (National Emission Standards) of the CAA.

As calculated in Section VII above:

SB 288 Major Modification Thresholds			
Pollutant	**Project PE2 (lb/year)**	**Threshold (lb/year)**	**SB 288 Major Modification Calculation Required?**
NO_x	12,447	50,000	Yes/No
SO_x	5,331	80,000	Yes/No
PM_{10}	15,060	30,000	Yes/No
VOC	15,262	50,000	Yes/No

If none of the thresholds are surpassed, include the next paragraph and delete the rest of this section.
Since none of the SB 288 Major Modification Thresholds are surpassed with this project, this project does not constitute an SB 288 Major Modification and no further discussion is required.

If any of the Thresholds are surpassed:
Since the project's PE2 surpasses the SB 288 Major Modification Thresholds for (x-pollutants), the project Net Emissions Increase (NEI) will be compared to the SB 288 Major Modification thresholds in order to determine if this project constitutes an SB 288 Major Modification.

The project NEI is the total of emission increases for every permit unit addressed in this project and is calculated as follows:

$NEI = \sum(PE2 - AE)$

Where: PE2 = The sum of all the PE2s for each permit unit in this project
AE = Actual emissions, as of a particular date, shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation. The reviewing authority shall allow the use of a different time period upon a determination that it is more representative of normal source operation

The AE is used to calculate the NEI and make the SB 288 Major Modification determination in the following table.

See Appendix XXX for detailed calculation of AE.

Note that any emissions increases of 0.5 lb/day or less round to zero for NSR purposes.

SB 288 Major Modification Calculation and Determination					
Pollutant	**PE2 (lb/yr)**	**AE (lb/yr)**	**NEI (lb/yr)**	**Thresholds (lb/yr)**	**SB 288 Major Modification?**
NO_x	50,280	1,299	48,981	50,000	Yes/No
SO_x				80,000	Yes/No
PM_{10}				30,000	Yes/No
VOC				50,000	Yes/No

As demonstrated in the preceding table, this project does/not constitute an SB 288 Major Modification.

8. Federal Major Modification / New Major Source

Federal Major Modification

Please note that for purposes of Federal major modification the federal definition of stationary source at which the new/modified equipment is located shall be used. The "area wide" definition of oil and gas production stationary source in Rule 2201 shall not be used.

The determination of whether various permitting actions involving new or modified emission units are part of the same project is to be performed on a case by case basis. In general, new or modified emission units that are technically or economically dependent shall be considered one project for purposes of Federal Major Modification applicability (see 71 FR 54235). Please note that in this context, the term project has no relation to the project number assigned by the District to individual groups of applications.

For additional guidance on implementation of the requirements for Federal Major Modifications, please see policy APR 1150 at: http://www.valleyair.org/busind/policies_idx.htm

Projects with PM10/PM2.5 emissions increase
For projects authorizing an increase in PM10 emissions, use the following guidance.

If a source is not major for PM10, no further calculations are needed. The project is not a PM2.5 Federal Major Modification.

For a source that is major for PM10, determine if the project is a Federal Major Modification for PM2.5 using the following streamlined approach.

1. Calculate the emission increase in PM10 emissions pursuant to the requirements of 40 CFR 51.165 as described above. If the increase in PM10 emissions is less than 20,000 lb/year, the project is not a PM2.5 Federal Major Modification (as PM2.5 is a subset of PM10).

2. If the PM10 emission increase is greater than 20,000 lb/year, calculate the PM2.5 emission increase. If the increase in PM2.5 emissions is less than 20,000 lb/year, the project is not a PM2.5 Federal Major Modification.

3. If the increase in PM2.5 emissions is greater than 20,000 lb/year, need to determine if the source is a Major source for PM2.5, i.e. a potential to emit of 140,000 lb/year. This determination must be made by calculating the PM2.5 emissions from all permit units. For oil production stationary sources, if the area wide stationary source has PM2.5 emissions less than 140,000 lb/year, then any Federal stationary source is not major for PM2.5.

   Alternatively, a large source may stipulate that they are a major source for PM2.5.

4. If the Federal stationary source is major for PM2.5 (140,000 lb/year) and the project has an increase in PM2.5 emissions greater than 20,000 lb/year, the project is a Federal Major Modification for PM2.5.

5. BACT is required for PM2.5 along with other Rule 2201 requirements for Federal Major Modifications. Please note, that until EPA approves the 2012 PM2.5 attainment plan,(which includes interpollutant offset ratios for SOx and NOx for PM2.5), interpollutant offsets for PM2.5 emission increases are not allowed.

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.

As defined in 40 CFR 51.165, Section (a)(1)(v) and part D of Title I of the CAA, a Federal Major Modification is 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. The significant net emission increase threshold for each criteria pollutant is included in Rule 2201.

If the source **is <u>not</u>** a major source for any pollutants, use the following paragraph, and delete the rest of the FFM section.
Since this facility is not a Major Source for any pollutants, this project does not constitute a Federal Major Modification and no further discussion is required.

If the source **<u>is</u>** a major source for one or more pollutants, only include calculations for pollutants for which the facility is major.
The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. In step 1, emission decreases can not cancel out the increases. Step 2 allows consideration of the project's net emissions increase as described in 40 CFR 51.165 and the Federal Clean Air Act Section 182 (e), as applicable.

For a project authorizing new or increased emissions in non-road engines use the following paragraph, otherwise delete it.
Non-road engines shall not be considered in determining whether a project is a Federal Major Modification. The Federal CAA reserves the regulation of non-road engines to Title II (National Emission Standards) of the CAA.

Step 1: Project Emissions Increase

If new emissions units are included in the project, use the following paragraph, otherwise delete it.
For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project:

Emission Increase = PE2

If existing emissions units are involved and there is no increase in design capacity or potential to emit, use the following paragraph, otherwise delete it.

For modified existing emissions units, according to 40 CFR 51.165(a)(2)(ii)(C), the project's emission increase for each pollutant is equal to the sum of the differences between the projected actual emissions (PAE) and the baseline actual emissions (BAE). Please note that in step 1, since the District is classified as extreme non-attainment for ozone, no NOx and VOC emission decreases associated with the proposed project shall be accounted for.

Project Emissions Increase = $\sum$(PAE – BAE)

As described in 40 CFR 51.165(a)(1)(xxviii)(B), when using historical data and company's expected business activity to determine PAE, the portion of the emissions after the project that the existing unit could have accommodated (Unused Baseline Capacity, UBC) before the project (during the same 24-month baseline period used to determine BAE) and that are unrelated to the particular project (including emissions increases due to product demand growth) are to be excluded.

Otherwise, according to 40 CFR 51.165(a)(1)(xxviii)(B)(4), when determining PAE, in lieu of using the method described in 40 CFR 51.165 (a)(1)(xxviii)(B)(1)-(3), *Projected Actual Emissions*, the owner/operator may elect to use emissions unit's Potential to Emit. If appropriate projected actual emissions are not provided by the applicant, then the emissions unit's Potential to Emit is used to calculate the emissions increase.

Use the following IF project proponent has not provided information required to calculate PAE, otherwise delete
Since the project proponent has not provided information required to calculate PAE, the District will use the PE2 to calculate the emissions increase:

Project Emissions Increase = $\sum$(PE2 – BAE)

Use the following IF project proponent has provided information required to calculate PAE, otherwise delete

Since the project proponent has provided the required historical and projected operation data (see Appendix XXX) required to calculate PAE, the project emissions increase will be calculated as follows:

Project Emissions Increase = PAE – BAE – UBC

Where: PAE = Projected Actual Emissions, and
BAE = Baseline Actual Emissions
UBC = Unused baseline capacity

Projected Actual Emissions (PAE)

The applicant must estimate the projected actual emissions (PAE) based on all information relevant to the emission unit(s): historical data, company's expected business activity, and highest projections of business).

If there is no increase in design capacity or potential to emit, the PAE is equal to the annual emission rate at which the unit is projected to emit in any one year, selected by the operator, within 5 years after the unit resumes normal operation (10 years for existing units with an increase in design capacity or potential to emit). If detailed PAE are not provided, the PAE is equal to the PE2 for each permit unit.

Either determine PAE in this section by fully describing all relevant information, referring to project proponent/facility's information, describing all calculations OR include the discussion and calculations in an Appendix XXX.

Baseline Actual Emissions (BAE)

BAE are calculated as the average, in tons/year, at which the emissions unit actually emitted during any 24-month period selected by the operator within the previous 10-year period (5 years for electric utility steam generating units).

BAE must be adjusted to

- Include fugitive emissions associated with startups, shutdowns, and malfunctions,
- Exclude any non-compliant operation emissions.

When a project involves multiple emissions units, for a specific regulated NSR pollutant, **only one consecutive 24-month period** must be used to determine the baseline actual emissions for all modified emissions units.

A different consecutive 24-month period can be used for each regulated NSR pollutant**.**

For emission units (other than electric utility steam generating units), according to according to 40 CFR 51.165(a)(1)(xxxv)(B), the BAE are calculated as the average, in

tons/year, at which the emissions unit actually emitted during any 24-month period selected by the operator within the previous 10-year period.

OR
For electric utility steam generating units, according to according to 40 CFR 51.165(a)(1)(xxxv)(B), the BAE are calculated as the average, in tons/year, at which the emissions unit actually emitted during any 24-month period selected by the operator within the previous 5-year period.

Please note: 1 baseline period only for a specific regulated NSR pollutant for modified emissions units. A different consecutive 24-month period can be used for each regulated NSR pollutant.

Either determine BAE in this section by fully describing all relevant information, referring to project proponent/facility's information, describing all calculations OR include the discussion and calculations in an Appendix XXX.

Unused Baseline Capacity (UBC)

In determining the UBC emissions, District staff must rely on information submited by the applicant and exercise independent judgement to assess if the claimed UBC emissions are reasonable.

Please note that UBC data must be determined during the same 24-month baseline period used to determine BAE.

The UBC emissions can not be directly assess as the difference between the pre-project potential to emit and the baseline actual emissions. The UBC determinaton must be made on a case-by-case basis. To determine the UBC, several factors must be considered such as the degradation of an emision unit's capacity, the ability of the unit to perform at specific capacity rate, the emission rate of the unit over time, etc. The UBC determinaton must be made on a case-by-case basis.

Project Emissions Increase

Either determine Project Emission Increase in this section by fully describing all relevant information, referring to project proponent/facility's information, describing all calculations OR include the discussion and calculations in an Appendix XXX.

NOTE Rounding Policy: If not applicable delete the rounding section below
Any emission increases that are calculated to be less than or equal to 0.5 lb./day per District policy for Federal Major Modification determination purposes shall use the following language (otherwise, delete this language and adjust presentation as appropriate): **If not applicable delete the rounding section below**

Per District Policy APR 1150, for purposes of determining if a new or modified emission unit is part of a Federal Major Modification, if the annual emission increase for the emission unit when divided by 365 is less than or equal to 0.5 lb./day, such an increase

shall be rounded to 0. The sum of the emission increases from new or modified emission units involved in this project that round to 0 shall not constitute a Federal Major Modification.

The total project annual emissions increase calculated in the table above when divided by 365 is:

XX lb-VOC/year ÷ 365 days/year = 0.YY lb-VOC/day.

Therefore, as discussed above, according to District Policy APR 1150, total project annual emission increase is rounded to 0 for VOC.

Conclusion

In conclusion, the project's combined total emission increases are calculated in Appendix XXXX and summarized in the following table and 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?**
NOx*		0	Yes / No
VOC*		0	Yes / No
PM10		30,000	Step 2 Required / No
PM2.5		20,000	Step 2 Required / No
SOx		80,000	Step 2 Required / No

*If there is any emission increases in NOx or VOC, this project is a Federal Major Modification and no further analysis is required.

Use either one of the following 3 conclusions, as applicable

Conclusion 1 - **NOT Federal Major Modification for any pollutant**

All answers are "no" in table above: use the following paragraph and delete the rest of this section and Step 2 of FMM determination.

Since none of the Federal Major Modification Thresholds are being surpassed with this project, this project does not constitute a Federal Major Modification and step 2 is not required and no further discussion is required.

Conclusion 2 – **Federal Major Modification for NOx or VOC**

Since there is an increase in NOx and/or VOC emissions, this project constitutes a Federal Major Modification. Consequently, as discussed below in the offset section of this evaluation, pursuant to Section 4.8.1.1 of District Rule 2201, NOx and VOC internal emission reductions (IER) or other actual emission reductions (AERs) used to satisfy the offset quantity required under District Rule 2201 must surplus at the time of use (ATC issuance).

Separately, Federal Offset Quantity is calculated below.

Conclusion 2 – **Federal Major Modification for PM10, PM2.5 or SOx**
Since the Federal Major Modification Thresholds have been surpassed for PM10, PM2.5 and/or SOx emissions, Step 2 is required.

Step 2: Project Net Emissions Increase

The second step includes comparing the total of all related emissions increases and decreases at the facility occurring within the past five years (including those projects not related to the subject project) to determine if the project results in a significant net emission increase and thus a Federal Major Modification. In this calculation, all creditable emission decreases and increases are counted.

Please note that, under the Federal Clean Air Act, section 182 (e) (2), Step 2 of the analysis shall not be performed for pollutant or their precursors for which a district is in extreme non-attainment status. Since the District is classified as extreme non-attainment for ozone, this requirement applies to NOx and VOC and Step 2 of the analysis shall not be performed for either of these 2 criteria pollutants.

Add the next paragraph if proposed, and delete the rest of this section.
Rather than supplying the required historical operating data for every emissions change over the past 5 years, the applicant has conceded that this project does constitute a Federal Major Modification for XYZ. The Federal Offset Quantity is calculated below

Please note that for projects that constitute a Federal major modification, the “emission increase” (calculated consistent with the requirements of 40 CFR 51.165) for such projects must be determined.
The applicant has provided all of the require historical operating data for every emissions change over the past 5 years (see Appendix XXX).

The total 5-year NEI is calculated in Appendix XXX and the values are compared to the Federal Major Modification Thresholds in the following table. Note that any emissions increases of 0.5 lb/day or less (annual emissions / 365) are rounded to zero for NSR purposes.

Federal Major Modification Thresholds for Total 5-Year NEI			
5-Year NEI (lb/yr)	**5-Year NEI (lb/yr)**	**5-Year NEI Thresholds (lb/yr)**	**Federal Major Modification**
PM10		30,000	Yes/No
PM2.5		20,000	Yes/No
SOx		80,000	Yes/No

Project is a Federal Major Modification for PM10, PM2.5 and/or SOx emissions

As demonstrated in the preceding table, this project constitutes a Federal Major Modification for PM10, PM2.5 and/or SOx emissions.

Separately, the Federal Offset Quantity is calculated below.

Project is NOT a Federal Major Modification for PM10, PM2.5 and/or SOx emissions
As demonstrated in the preceding table, this project does not constitute a Federal Major Modification for PM10, PM2.5 and/or SOx emissions.

New Major Source

Facility NOT becoming a Major Source
As demonstrated above, this facility is not becoming a Major Source as a result of this project, therefore, this facility is not a New Major Source pursuant to Section 3.30 of District Rule 2201.

New Major Source: Facility becoming a Major Source with project increase exceeding major source threshold
Pursuant to District Rule 2201, emission increases at a non-major source (or at new sources) constitute a New Major Source if the emission increase for a given pollutant is as large as the major source threshold for that pollutant, i.e. the project by itself would result in a net emission increase exceeding the major source threshold.

Since this facility is becoming Major Source for NOx as a result of this project, the project NOx emissions increase will be compared to the Federal Major Source threshold for NOx to determine whether the project results in a New Major Source according to Section 3.30 of District Rule 2201.

In this case, project emissions increase/net emissions increase is calculated as described in the Federal Major Modification section above. Therefore, please use the Federal Major Modification project emissions increase/net emissions increase discussion and calculation above and paste it here.

The project NOx emissions increase is compared to the Federal Major Source threshold for NOx in the table below.

New Major Source Determination (lb/year)						
	NOx	**SOx**	**PM10**	**PM2.5**	**CO**	**VOC**
Project Emissions Increase	XXX	XXX	XXX	XXX	XXX	XXX
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
New Major Source?	No	No	No	No	No	No

Note: PM2.5 assumed to be equal to PM10

Conclusion – NOT New Major Source
Since the project emissions increase does not exceed the Major Source thresholds for any pollutant, this facility is not a New Major Source pursuant to Section 3.30 of District Rule 2201 and no further discussion is required.

Conclusion – New Major Source for **NOx or VOC**
Since the project emissions increase exceeds the Major Source thresholds for NOx and VOC, this facility is a New Major Source pursuant to Section 3.30 of District Rule 2201 for NOx and VOC. Consequently, as discussed below in the offset section of this evaluation, pursuant to Section 4.8.1.1 of District Rule 2201, NOx and VOC internal emission reductions (IER) or other actual emission reductions (AERs) used to satisfy the offset quantity required under District Rule 2201 must be surplus at the time of use (ATC issuance).

Or, for threshold(s) **other than NOx and VOC** thresholds being exceeded
Since the project emissions increase exceeds the Major Source thresholds for PM10, PM2.5, CO, and SOx, this facility is a New Major Source pursuant to Section 3.30 of District Rule 2201 for PM10, PM2.5, CO, and SOx.

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)

(Eliminate from the list those pollutants which are not emitted in the project.)

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10
- Lead
- Fluorides
- Sulfuric acid mist
- Hydrogen sulfide (H2S)
- Total reduced sulfur (including H2S)
- Reduced sulfur compounds
- Municipal waste combustor organics (measured as total tetra-through octa-chlorinated dibenzo-p-dioxins and dibenzofurans): 3.2×10^{-6} megagrams per year (3.5×10^{-6} tons per year)
- Municipal waste combustor metals (measured as particulate matter): 14 megagrams per year (15 tons per year)
- Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride): 36 megagrams per year (40 tons per year)

- Municipal solid waste landfills emissions (measured as nonmethane organic compounds): 45 megagrams per year (50 tons per year)

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

If the facility is an existing PSD Major Source, the second step to determine PSD applicability is to determine if the project results in a significant increase and if so, also a significant net emissions increase for any PSD pollutant.

If the facility is an existing source but not an existing PSD Major Source, the second step to determine PSD applicability is to determine if the project, by itself, would be a PSD Major Source. If so, then the project must be evaluated to determine if the emissions increase of any PSD pollutant will result in a significant increase and if so, also a significant net emissions increase.

If the facility is new source, the second step to determine PSD applicability is to determine if this new facility is a new PSD Major Source as a result of the project. If so, then the project must be evaluated to determine if the emissions increase of any PSD pollutant will result in a significant emissions increase and if so, also a significant net emissions increase.

The determination of whether various permitting actions involving new or modified emission units are part of the same project is to be performed on a case by case basis. In general, new or modified emission units that are technically or economically dependent shall be considered one project for purposes of Rule 2410 applicability (see 71 FR 54235).

Please note that in the calculations below, PM emissions may be assumed to be equal to PM10 (particulate matter less than 10 microns in diameter) emissions for certain types of emission units at the facility. For combustion sources, assume all PM is equal to PM10. This assumption will need to be stated in the evaluation.

If for a given emission stationary source type, this assumption is not accurate, then separate calculations are required for PM and PM10.

SECTION A: Facility is an existing PSD Major Source

If in the "PSD Major Source Determination" Section above, the facility was determined to be a existing PSD Major Source, use the following. If not an existing PSD Major Source delete **SECTION A** and go to **SECTION B.**

I. Project Location Relative to Class 1 Area

If the project is located within 10 km (6.2 miles) of a Class 1 area, a PSD significant emission increase is determined based on a modeled increase in emissions of any regulated pollutant of 1 ug/m3 (24 hr average) or greater. If the project is determined to have a significant increase, then the project is subject to requirements of Rule 2410 (regardless of emission increase) for that pollutant.

Projects located **within** 10 km of a Class 1 area
In this case please use the following, otherwise delete
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 located within 10 km (6.2 miles) of a Class 1 area – modeling of the emission increase is required to determine if the project is subject to the requirements of Rule 2410. See Appendix XXX for results of modeling.

Projects **NOT within** 10 km of a class 1 area
In this case please use the following, otherwise delete
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 futher PSD analysis is needed.

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)					
	NO2	**SO2**	**CO**	**PM**	**PM10**
Total PE from New and Modified Units	XX	XX	XX	XX	XX
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Potential to emit is **less** than the PSD significant emission increase thresholds and the project is not located within 10 km of a Class I Area. Project is not subject to Rule 2410. Use the following statement, otherwise delete

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.

Delete the rest of the Rule 2410 applicability discussion.

OR

Potential to emit is **less** than the PSD significant emission increase thresholds and the project **is** located within 10 km of a Class I Area: Project is not subject to Rule 2410 for significant increase purposes. Use the following statement, otherwise delete

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 due to a significant emission increase.

Delete the remainder of the Rule 2410 applicability discussion through the Conclusion.

OR

Post-project potential to emit is **greater** than the PSD significant increase threshold:
include the following, and go to step (b), otherwise delete

As demonstrated in the table above, because the post-project potential to emit from all new and modified emission units is greater than at least one PSD significant emission increase threshold, further analysis is required to determine if the project will result in an increase greater than the PSD significant emission increase thresholds, see step b. below for further analysis.

b. Evaluation of Calculated Emission Increases vs PSD Significant Emission Increase Thresholds

In this step, the emission increase for each subject pollutant is compared to the PSD significant emission increase threshold, and if the emission increase for each subject pollutant is below their threshold, no futher analysis is required.

Please note that in this step only emission increases are counted. Any emission decreases, including those associated with the “project” are not considered in this step

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

For existing emissions units, the increase in emissions is calculated as follows:

Emission Increase = PAE – BAE - UBC

Where: PAE = Projected Actual Emissions, and
BAE = Baseline Actual Emissions
UBC = Unused baseline capacity

The project's total emission increases, as calculated in the Federal Major Modification section above, are listed below and compared to the PSD significant emission increase thresholds in the following table.

PSD Significant Emission Increase Determination: Emission Increase (tons/year)					
	NO2	**SO2**	**CO**	**PM**	**PM10**
Emission Increases (only)	XX	XX	XX	XX	XX
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Emission increase less than the PSD significant emission increase thresholds
If the emission increase is less than the PSD significant emission increase threshold, the project is not subject to Rule 2410. Use the following statement and delete the rest of the Rule 2410 applicability discussion.
As shown in the table above, the emission increases from the project, for all new and modified emission units, does not exceed any of the PSD significant emission increase thresholds. Therefore the project does not result in a PSD major modification and no further discussion is required.

OR

Emission increase greater than the PSD significant emission increase thresholds
If the emission increase is greater than the PSD significant emission threshold for any pollutant, then the net emission increase must be calculated for that pollutant to determine if a signiticant net emission increase has occurred.
As demonstrated in the table above, the emission increases from the project exceed the PSD significant emission increase thresholds for the following pollutant(s): xxx. Therefore, further analysis is required to determine if the project will also result in a net emission increase greater than the PSD sigificant emission increase threshold for this (these) specific pollutant(s).

c. Evaluation of Net Emission Increases vs PSD Significant Emission Increase Thresholds

The net emission increase needs to be calclated only for the (those) pollutant(s) with a PSD significant emission increase.

All creditable emission increases and decreases at the stationary source occurring within the past five years (including those projects not related to the subject project) are calculated to determine if the project results in a significant

net emission increase. In this calculation, only creditable emission decreases and increases are counted:

- Emission changes that resulted in the project being a Federal Major Modification (as defined in Rule 2201) or subject to a major PSD permit are not creditable.
- Emission decreases that resulted in the issuance of emission reduction credits are not creditable.
- Emission decreases required by any SIP requirement or settlement agreement are not creditable.

The creditable increases and decreases in emissions during the five years preceding the expected date of commencement of construction of the proposed project must be calculated.

Please note that the date of commencement of construction is not the date the application was deemed complete. In this step when calculating emission increases, the difference between the potential to emit and the baseline actual emissions must be used; projected actual emissions cannot be used. Also note that this includes ATC's issued prior to the date construction is commenced.

When calculating the emission increases from previous projects, that portion of the increase that could have been accommodated under the existing capacity of the unit and/or due to demand growth can be excluded from the emission increase.

When calculating emission decreases, the decrease is equal to the difference between the pre-project baseline actual emissions and the post-project potential to emit.

A detail calculation of the creditable emission increases and decreases, including the proposed project, is included in Appendix XXX.

PSD Significant Emission Increase Determination: Net Emission Increase (tons/year)					
	NO2	**SO2**	**CO**	**PM**	**PM10**
Net Emission Increases	XX	XX	XX	XX	XX
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Net Emission Increase?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Example (a):
Projects with net emission increase **less** than the PSD significant emission increase thresholds: Use the following, otherwise delete

As demonstrated in the table above, the project does not result in a significant net emission increase for any subject pollutant. As such, the project is not subject to Rule 2410 and no further analysis is required.

Example (b):
Note: If a determination that the net emission increase is less than the PSD significance threshold (all creditable increases and decreases within 5 years prior to the date of commencement of construction) appropriate conditions must be included in the ATC to require that construction commence within 6 months of the date expected date of commencement of construction used in the net emission increase calculations.

As demonstrated in the table above, the project does not result in a significant net emission increase for any subject pollutant. As such, the project is not subject to Rule 2410 and no further analysis is required.

The determination that the net emission increase is less than the PSD significant threshold is based on the applicants proposed construction date and takes into consideration all creditable increases and decreases within 5 years prior to the date of commencement of construction. Therefore, to ensure compliance with this determination, the following permit condition will be added to the ATC:

Construction of the project shall commence no later than xxx date. [District Rule 2410]

Example (c):
Projects with net emission increase **greater** than the PSD significant emission increase thresholds. Use the following, otherwise delete

As demonstrated in the table above, the project results in a PSD significant net emissions increase for the following pollutant(s): ____, and _____. As such, the project is subject to Rule 2410 for _____, and _____.

Therefore, BACT and modeling is required for _____, and _____.

If CO2e net emission increase is greater than 75,000 ton/year, BACT is required for CO2e as well. Talk to your supervisor.

SECTION B: Facility is NOT an existing PSD Major Source

If in the "PSD Major Source Determination" Section above, the facility was determined to NOT be a existing PSD Major Source, use the following. And make sure the entire Section A has been deleted .

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

Facility or equipment evaluated under this project listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii),
Please use the following section: otherwise delete.
The equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). The PSD Major Source threshold is 100 tpy for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO2	**VOC**	**SO2**	**CO**	**PM**	**PM10**
Total PE from New and Modified Units	XX	XX	XX	XX	XXX	XX
PSD Major Source threshold	100	100	100	100	100	100
New PSD Major Source?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

OR

Facility or equipment evaluated under this project **NOT** listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii),
Please use the following section: otherwise delete.
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). The PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO2	**VOC**	**SO2**	**CO**	**PM**	**PM10**
Total PE from New and Modified Units	XX	XX	XX	XX	XXX	XX
PSD Major Source threshold	250	250	250	250	250	250

New PSD Major Source?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Example (a):
Project potential to emit below PSD major source threshold, use the following, otherwise delete
As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.
Delete ALL the rest of Rule 2410 applcaility discussion.

OR

Example (b):
Project potential to emit exceeding PSD major source threshold, use the following, otherwise delete
As demonstrated in the table above, the potential to emit for the project for all new and modified emission units exceeds the PSD major source thresholds for XXX (insert pollutants). Therefore, the project is subject to Rule 2410 for these pollutants. Further analysis is required to determine if the project results in a significant emission increase, and if so, also a significant net emissions increase for any other PSD pollutant.

II. Project Location Relative to Class 1 Area

If the project is located within 10 km (6.2 miles) of a Class 1 area, a PSD significant emission increase is determined based on a modeled increase in emissions of any regulated pollutant of 1 ug/m3 (24 hr average) or greater. If the project is determined to have a significant increase, then the project is subject to requirements of Rule 2410 (regardless of emission increase) for that pollutant.

Example (a):
Projects located **within** 10 km of a Class 1 area. In this case please use the following, otherwise delete
As demonstrated in B (I.) above, the facility was determined to be a new PSD Major Source. Because the project is located within 10 km (6.2 miles) of a Class 1 area – modeling of the emission increase for each subject pollutant not already determined to consitute a PSD major source, in and of itself, is required to determine if the project is subject to the requirements of Rule 2410 for each of those pollutants. See Appendix XXX for results of modeling.

Example (b):
Projects **NOT within** 10 km of a class 1 area. In this case please use the following, otherwise delete
As demonstrated in B (I.) above, the facility was determined to be a new PSD Major Source. However, because the project is not located within 10 km (6.2 miles) of a Class 1 area – modeling of the emission increase for each subject pollutant not already

determined to consitute a PSD major source, in and of itself, is not required to determine if the project is subject to the requirements of Rule 2410 for each of those pollutants.

III. Project Emissions Increase – Significance Determination

a. Evaluation of Calculated Emission Increase of Subject Pollutants from New or Modified Emission Units vs PSD Significance Thresholds

In this step, the emission increase for each subject pollutant not already determined to consitute a PSD major source, in and of itself, is compared to the PSD signifcance thresholds, and if emission increase for each subject pollutant is below this threshold, no futher analysis is needed.

Please note that in this step only emission increases are counted. Any emission decreases, including those associated with the "project" are not considered in this step

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

For existing emissions units, the increase in emissions is calculated as follows:

Emission Increase = PAE – BAE - UBC

Where: PAE = Projected Actual Emissions, and
BAE = Baseline Actual Emissions
UBC = Unused baseline capacity

The project's total emission increases, as calculated in the Federal Major Modification section above, are listed below and compared to the PSD significant emission increase thresholds in the following table.

PSD Significant Emission Increase Determination: Emission Increase (tons/year)					
	NO2	**SO2**	**CO**	**PM**	**PM10**
Emission Increases (only)	XX	XX	XX	XX	XX
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Example (a):
Emission increase less than the PSD significant emission increase thresholds.
If the emission increase is less than the PSD significant emission increase threshold for the identified subject pollutants, the project is not subject to Rule 2410 for thses pollutants. Use the following statement and delete the rest of the Rule 2410 applicability discussion.

As shown in the table above, the emission increases from the project, for all new and modified emission units, does not exceed any of the PSD significant emission increase thresholds for the identified pollutants. Therefore the project does not result in a PSD major modification for the identified subject pollutants and no further analysis is required.

OR

Example (b):
Emission increase greater than the PSD significant emission increase thresholds
If the emission increase is greater than the PSD significant emission threshold for any identified pollutant, then the net emission increase must be calculated for that pollutant to determine if a signiticant net emission increase has occurred.

As demonstrated in the table above, the emission increases from the project exceed the PSD significant emission increase thresholds for the following pollutant(s): XXXX. Therefore further analysis is required to determine if the project will also result in a net emission increase greater than the PSD sigificant emission increase threshold for this (these) specific pollutant(s).

b. Evaluation of Net Emission Increases vs PSD Significant Emission Increase Thresholds

The net emission increase needs to be calculated only for the pollutant(s) with a PSD significant emission increase.

All creditable emission increases and decreases at the stationary source occurring within the past five years (including those projects not related to the subject project) are calculated to determine if the project results in a significant net emission increase. In this calculation, only creditable emission decreases and increases are counted:

- Emission changes that resulted in the project being a Federal Major Modification (as defined in Rule 2201) or subject to a major PSD permit are not creditable.
- Emission decreases that resulted in the issuance of emission reduction credits are not creditable.
- Emission decreases required by any SIP requirement or settlement agreement are not creditable.

The creditable increases and decreases in emissions during the five years preceding the expected date of commencement of construction of the proposed project must be calculated.

Please note that the date of commencement of construction is not the date the application was deemed complete. In this step when calculating emission increases, the difference between the potential to emit and the baseline actual emissions must be used; projected actual emissions cannot be used. Also note that this includes ATC's issued prior to the date construction is commenced.

When calculating the emission increases from previous projects, that portion of the increase that could have been accommodated under the existing capacity of the unit and/or due to demand growth can be excluded from the emission increase.

When calculating emission decreases, the decrease is equal to the difference between the pre-project baseline actual emissions and the post-project potential to emit.

A detail calculation of the creditable emission increases and decreases, including the proposed project, is included in Appendix XXX.

PSD Significant Emission Increase Determination: Net Emission Increase (tons/year)					
	NO2	**SO2**	**CO**	**PM**	**PM10**
Net Emission Increases	XX	XX	XX	XX	XX
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Net Emission Increase?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Example (c):
Projects with net emission increase **greater** than the PSD significant net emission increase thresholds. Use the following, otherwise delete.

Use the following, otherwise delete

As demonstrated in the table above, the project results in a PSD significant net emissions increase for the following pollutant(s): ____, and _____. As such, the project is subject to Rule 2410 for _____, and _____.

Therefore, BACT and modeling is required for _____, and _____.

If CO2e net emission increase is greater than 75,000 ton/year, BACT is required for CO2e as well. Talk to your supervisor.

Example (d):
Projects with net emission increase **less** than the PSD significant emission increase thresholds. Use the following, otherwise delete.

Note: If a determination that the net emission increase is less than the PSD significance threshold (all creditable increases and decreases within 5 years prior to the date of commencement of construction) appropriate conditions must be included in the ATC to require that construction commence within 6 months of the date expected date of commencement of construction used in the net emission increase calculations.

As demonstrated in the table above, the project does not result in a significant net emission increase for any identified subject pollutant. As such, the project is not subject to Rule 2410 for any identified subject pollutant and no further analysis is required.

The determination that the net emission increase is less than the PSD significant threshold is based on the applicants proposed construction date and takes into consideration all creditable increases and decreases within 5 years prior to the date of commencement of construction. Therefore, to ensure compliance with this determination, the following permit condition will be added to the ATC:

- Construction of the project shall commence no later than xxx date. [District Rule 2410]

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 XXX.

VIII. Compliance Determination

The Compliance Section shall document compliance with District Rules. List and discuss every relevant applicable rule. Discuss the basis for every condition that will be added to, modified or removed from the permit.

(Note: In this section, address applicable rules in numerical order. In other words, Rule 2201 does not necessarily need to be listed first, if another rule applies (i.e. Rule 2010, 2020, etc.).)

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 2.0 pounds per day, or the relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding 2.0 pounds per day,
b. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Permitted Emissions (AIPE) exceeding 2.0 pounds per day, and/or
c. 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 or relocated emissions units – PE > 2.0 lb/day

For all *new* **emissions units** associated with this project, refer to the PE calculated above, and then cite which pollutants trigger BACT.

Example (a): (For a new diesel-fired IC engine – BACT triggered, except CO.)
As seen in Section VII.C.2 above, the applicant is proposing to install a new diesel-fired IC engine with a PE greater than 2.0 lb/day for NOx, SOx, CO, and VOC. BACT is triggered for NOx, SOx, and VOC only since the PEs are greater than 2.0 lb/day. However BACT is not triggered for CO since the SSPE2 for CO is not greater than 200,000 lb/year, as demonstrated in Section VII.C.5 above.

Example (b): (For a project not including new or relocated emissions units.)
As discussed in Section I above, there are no new or relocated emissions units associated with this project. Therefore BACT for new units with PE > 2 lb/day purposes is not triggered.

b. Modification of emissions units – AIPE > 2.0 lb/day

For all *modified* **emissions units** associated with this project, perform the AIPE calculation for all pollutants emitted by the emissions units. Then cite which pollutants trigger BACT for which units.

Example (a): (For a modified operation with two baghouse – BACT not triggered.)
AIPE = PE2 – HAPE

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)
PE2 = Post-Project Potential to Emit, (lb/day)
HAPE = Historically Adjusted Potential to Emit, (lb/day)

HAPE = PE1 x (EF2/EF1)

Where,

PE1 = The emissions unit's PE prior to modification or relocation, (lb/day)
EF2 = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1
EF1 = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

AIPE = PE2 – (PE1 ∗ (EF2 / EF1))

C-XXX-X-X:
Saunco Model RA12-252 Baghouse:
AIPE = 38.6 – (38.6 ∗ (0.046/0.046))
= 38.6 – 38.6 ∗ 1
= 0.0 lb/day

Mac Model 144MCF Baghouse:
AIPE = 30.2 – (30.2 ∗ (0.036/0.036))
= 30.2 – 30.2 ∗ 1
= 0.0 lb/day

As demonstrated above, the AIPE is not greater than 2.0 lb/day for PM10 emissions for any baghouse. Therefore BACT is not triggered.

Example (b): (For a project not including modified emissions units.)
As discussed in Section I above, there are no modified emissions units associated with this project. Therefore BACT is not triggered.

c. SB 288/Federal Major Modification

Example (a): (For a project not triggering an SB 288 or Federal Major Modification.)
As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute an SB 288 and/or Federal Major Modification for any pollutant. Therefore, BACT is not triggered for any pollutant.

Example (b): (For a project triggering an SB 288 and/or Federal Major Modification – For NOx only.)
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 NOx emissions. Therefore, BACT is

triggered for NOx for all emissions units in the project for which there is an emission increase.

Example (c): (For a project triggering an SB 288 and/or Federal Major Modification Major Modification – with emissions less than 0.5 lb/day.)
As discussed in Sections VII.C.7 and VII.C.8 above, this project involves new emissions units only and constitutes an SB 288 and/or Federal Major Modification. Only unit S-AAAA is subject to BACT. BACT is not required for units S-XXXX through S-YYYY as the emissions increases are less than 0.5 lb/day.

(Note: It can't be emphasized enough that BACT calculations are evaluated on an emissions unit-by-emissions unit basis.)

2. BACT Guideline

If BACT is triggered, indicate which BACT Guideline applies, and include such guideline in the appendix. If BACT is not triggered, delete this and the following section.

For example: (For a diesel-fired IC engine.)
BACT Guideline 3.1.1, applies to the diesel-fired emergency IC engine. [Emergency Diesel I.C. Engines] (See Appendix XXX)

3. Top-Down BACT Analysis

Refer to the BACT Analysis contained in Appendix D, list the BACT requirements and indicate if the proposal meets the BACT requirements.

For example: (For a diesel-fired IC engine – BACT triggered.)
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 XXX), BACT has been satisfied with the following:

NOx: Latest Available Tier Certification level for applicable horsepower
SOx: Very low sulfur diesel (15 ppmw sulfur or less)
VOC: Latest Available Tier Certification level for applicable horsepower

B. Offsets

District offset requirements are triggered if the SSPE2 (calculated above) equals or exceeds the Offset Threshold levels outlined in District Rule 2201, Section 4.5.3.

Federal offset requirements are triggered if the project is a New Major Source or a Federal Major Modification as determined above.

(Note: Offsets can be triggered and required even when there is no increase in emissions! Therefore, always determine if offsets are triggered, and if so, perform the offset quantity calculation below.)

1. District Emission Offset Requirements

a. District Offset Applicability

Pursuant to District Rule 2201, Section 4.5, District 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 District Rule 2201.

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

District Offset Determination (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE2	- -	- -	- -	- -	- -
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No

b. District Offset Quantity (DOQ) Required

Case A: Offsets not triggered for any pollutant, please use the following, otherwise delete
As shown above, the SSPE2 is not greater than the offset thresholds for all pollutants, therefore District offsets are not triggered. In conclusion, offsets will not be required for this project and no further discussion is required.

Case B: Offsets triggered for NOx and VOC; however project is FMM or NMS for NOx and VOC, please use the following, otherwise delete
As shown above, the SSPE2 is greater than the offset thresholds for NOx and VOC; therefore, District offsets are triggered for NOx and VOC under NSR. However, since this project is a Federal Major Modification or New Major Source for NOx and VOC, the District offset exemption from Section 4.6.10 and 4.6.11 of District Rule 2201 is applicable to this project, and District offsets for NOx and VOC are not required.

Case C: Projects involving equipment exempt from offsets under District Rule 2201 Section 4.6
Please note, that emergency ICEs **trigger** offsets (if SSPE2 exceeds offset threshold) but based on NSR exemption, are **exempt** from providing offsets (**offsets not required**).

For example, for **project only involving equipment exempt from offsets under District Rule 2201 Section 4.6** (i.e. emergency equipment ICE **only)**, please use the following, otherwise delete

As demonstrated above, District offsets are triggered for SOx, PM10, or PM2.5, under District Rule 2201. However, since this project only involves emergency IC Engine, the District offset exemption from Section 4.6.2 of District Rule 2201 is applicable to this project. Therefore, District offsets are not required for this project and District offset calculations are not necessary.

Case D: Offsets triggered and project is not a FMM or NMS, please use the following, otherwise delete

NOTE: When offsets are triggered for several criteria pollutants, each pollutant must be addressed one by one separately (District Offset Quantities Calculation thru Proposed Rule 2201 Offset Permit Conditions) before addressing the next pollutant.

2.1 NOx (Add section as needed to address each pollutant requiring offsets)

*Example **a**:* ***Facility with SSPE1 below offset threshold and an emissions increase resulting in SSPE2 exceeding the offset threshold and offsets being triggered for that criteria pollutant***

As demonstrated above, for NOx, the SSPE1 is below the offset threshold while the SSPE2 is greater than the offset thresholds for that pollutant. Therefore offset calculations will be required for this project.

The quantity of offsets in pounds per year for NOx is calculated as follows for sources with an SSPE1 less than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = [(SSPE2 – ROT + ICCE) x DOR]

Where,
SSPE2 = Post-Project Stationary Source Potential to Emit
ROT = Respective Offset Threshold, for the respective pollutant
ICCE = Increase in Cargo Carrier Emissions
DOR = Distance Offset Ratio, determined pursuant to Section 4.8

Cargo Carrier Emissions: See FYI-348
*It is very important to accurately account for any increases in **Cargo Carrier** emissions when determining the quantity of offsets required. Please refer to **FYI-348** for a discussion of the procedures to be followed when evaluating cargo carrier emission increases as well as a list of stationary sources with known cargo carrier equipment.*

With Emergency Equipment (Otherwise delete)

Emergency equipment that is used exclusively as emergency standby equipment for electrical power generation or any other emergency equipment as approved by the APCO that does not operate more than 200 hours per year of non-emergency purposes and is not used pursuant to voluntary arrangements with a power supplier to curtail power, is exempt from providing emission offsets. Therefore, permit unit C-XXXX-6-0 will be exempt from providing offsets and the emissions associated with this permit unit contributing to the SSPE2 should be removed prior to calculating actual offset amounts.

Offsets Required (lb/year) = [(SSPE2 – Emergency Equipment – ROT + ICCE) x DOR]

SSPE2 (NOx)	= xxx lb/year
C-XXXX-6-0 (NOx)	= xxx lb/year
Offset threshold (NOx)	= 20,000 lb/year
ICCE	= xxx lb/year

Based on the ERC being proposed to satisfy offset requirements, the offset ratio is 1:1 or 1.2:1 or 1.3:1 or 1.5:1, the amount of NOx ERCs that need to be withdrawn is:

Offsets Required (lb/year) = [(xxx – xxx – 20,000 + 0) x DOR]
= xxx x DOR
= xxx lb-NOx/year

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

Quarterly offsets required (lb/qtr) = (xxx lb-NOx/year) ÷ (4 quarters/year)
= xxx b-NOx/qtr

{If this calculation results in equal whole numbers in each quarter, delete the following paragraphs and table.}

As demonstrated 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 ÷ 4 = Y.z)				
Value of z	**Quarter 1**	**Quarter 2**	**Quarter 3**	**Quarter 4**
0.0	Y	Y	Y	Y
0.25	Y	Y	Y	Y+1
0.5	Y	Y	Y+1	Y+1
0.75	Y	Y+1	Y+1	Y+1

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	**Total Annual**
xxx	xxx	xxx	xxx	**xxx**

(Note: Quarterly figures may be different for seasonal sources.)

*Example **b**:* ***Existing facility with SSPE1 above the offset threshold and offsets being triggered for that criteria pollutant*** *– modifying permit unit or adding new unit*

As demonstrated above, the facility has an SSPE1 for NOx greater than the offset thresholds. Therefore offset calculations will be required for this project.

The quantity of offsets in pounds per year for NOx 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] + ICCE) 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)
ICCE = Increase in Cargo Carrier Emissions, (lb/year)
DOR = Distance Offset Ratio, determined pursuant to Section 4.8

Cargo Carrier Emissions: See FYI-348
*It is very important to accurately account for any increases in **Cargo Carrier** emissions when determining the quantity of offsets required. Please refer to **FYI-348** for a discussion of the procedures to be followed when evaluating cargo carrier emission increases as well as a list of stationary sources with known cargo carrier equipment.*

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. *(See Section VII.C.6 above, for a detailed analysis of Baseline Emissions at a Major Source.)*

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:

Offsets Required (lb/year) = ([PE2 – BE] + ICCE) x DOR

PE2 (NOx) = xxx lb/year
BE (NOx) = xxx lb/year
ICCE = 0 lb/year

Offsets Required (lb/year) = ([xxx – xxx] + 0) x DOR
= lb-NOx/year

If offsets not required, otherwise delete:
As demonstrated in the calculation above, the amount of offsets required is zero.

Otherwise
Based on the ERC being proposed to satisfy offset requirements, the offset ratio is 1:1 or 1.2:1 or 1.3:1 or 1.5:1, the amount of NOx ERCs that need to be withdrawn is:

Offsets Required (lb/year) = ([xxx – xxx] + 0) x DOR
= xxx x DOR
= xxx lb-NOx/year

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

Quarterly offsets required (lb/qtr) = (xxx lb-NOx/year) ÷ (4 quarters/year)
= xxx b-NOx/qtr

{If this calculation results in equal whole numbers in each quarter, delete the following paragraphs and table.}

As demonstrated 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 ÷ 4 = Y.z)				
Value of z	**Quarter 1**	**Quarter 2**	**Quarter 3**	**Quarter 4**
0.0	Y	Y	Y	Y
0.25	Y	Y	Y	Y+1
0.5	Y	Y	Y+1	Y+1
0.75	Y	Y+1	Y+1	Y+1

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	**Total Annual**
xxx	xxx	xxx	xxx	**xxx**

(Note: Quarterly figures may be different for seasonal sources.)

The applicant has proposed to use the following emission reduction certificates:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ERC #S-XXXX-2	45,681	47,927	46,196	44,813

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

(Note: interpollutant offsets may also be allowed; however, the facility must justify the proposed interpollutant offset ratio with an interpollutant offset ratio analysis.)

Proposed Rule 2201 Offset Permit Conditions

The following permit conditions will be added to the Authority(ies) to Construct:

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - xxx lb, 2nd quarter - xxx lb, 3rd quarter - xxx lb, and fourth quarter - xxx lb. These amounts include the applicable offset ratio specified

in Rule 2201 Section 4.8 (as amended 4/20/23) for the ERC specified below. [District Rule 2201]

- {GC# 1983} ERC Certificate Number S-XXXX-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]

2.2 VOC (Add section as needed to address each pollutant requiring offsets)

SEE Section 2.1 ABOVE

Each pollutant must be addressed one by one separately, from District Offset Quantities Calculation up to the Permit Conditions

2. Federal Emission Offset Requirements

a. Federal Offset Applicability

Pursuant to District Rule 2201, Section 4.8, federal offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the project is a New Major Source or a Federal Major Modification.

Minor Source for ALL pollutants
As demonstrated in section VII.C.8 above, this project is not a New Major Source or a Federal Major Modification for any pollutant addressed in this project. Thus, federal offsets are not triggered for this project.

FMM or NMS
As demonstrated in section VII.C.8 above, this project is a New Major Source or a Federal Major Modification for NOx and VOC. Thus, federal offsets are triggered for this project.

b. Federal Offset Quantity (FOQ) Required

Project is not a FMM or NMS, use the following, otherwise delete:
As discussed above, this project does not trigger Federal Major Modification or New Major Source requirements; therefore, in conclusion, federal offsets will not be required for this project and no further discussion is required.

Project is a FMM for the proposed installation of equipment required to **comply with an applicable attainment implementation** plan or permit, use the following, **otherwise delete**:
As discussed above, this project triggers Federal Major Modification requirements. In accordance with the Clean Air Act, Section 182(e)(2), the offset requirements of this

part shall not be applicable in areas designated as Extreme non-attainment to a modification of an existing source if such modification consists of installation of equipment required to comply with an applicable attainment implementation plan or permit.

The District is designated as Extreme non-attainment for ozone (NOx and VOC emissions). As discussed above, the proposed project is to replace the burner on an existing boiler. The burner replacement is being done to bring the unit it to compliance with District Rule 4320. District Rule 4320 was adopted as a part of the District's 2007 Ozone Attainment Plan. Since this project involves the installation of equipment to comply with District Rule 4320 and the 2007 Ozone Attainment Plan, this project is not subject to federal offset requirements.

Therefore,

FOQ_{VOC} = 0 lb-VOC/year

Project is a FMM or NMS
NOTE: The Federal Offset Quantity (FOQ) is only calculated for the pollutants for which a project is a Federal Major Modification or a New Major Source as determined in the section above.

The Federal Offset Quantity (FOQ) is only calculated for the pollutants for which a project is a Federal Major Modification or a New Major Source as determined above.

Pursuant to Section 4.8.4 of District Rule 2201, 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 federal baseline emissions (FBE) for each emission unit times the applicable offset ratio.

FOQ = ∑(PE2 – FBE) x offset ratio

Federal Baseline Emissions

Pursuant to Section 3.19 of District Rule 2201, for a given pollutant, federal baseline emissions (FBE) = PE1 for:

- Any Highly-Utilized Emissions Unit,
- Any Fully-Offset Emissions Unit.

otherwise,

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

New Unit
Since this is a new unit, FBE = 0

Modified Unit

Please note that FBE and BAE calculated in Section VII.C.8 may be different.

- If not using PE1, FBE is the average rate at which the unit actually emitted the pollutant during a consecutive 24-month period before the project and which is representative of normal source operation
- While BAE are calculated as the average at which the emissions unit actually emitted during any 24-month period selected by the operator within the previous 10-year period (5 years for electric units).

  Explanation supporting FBE must be provided. The simple assumption that BAE = FBE cannot be made.

Either determine FBE in this section by fully describing all relevant information, referring to available and relevant information, describing all calculations OR include the discussion and calculations in an Appendix.

Example (a): (Highly-Utilized Emissions Unit – NOx Only)

Modified units x-xxx-xx-x, xxx, and xxx are not Highly-Utilized or Fully-Offset; therefore, FBE = HAE. HAE is calculated below, as the average emissions, using emissions inventory information for the years 2021 and 2022.

Permit No.	2021 Historical Actual Emissions (lb/year)	2022 Historical Actual Emissions (lb/year)	Historical Actual Emissions (lb/yr)
x-xxx-xx-x	xx	xx	**xx**
x-xxx-xx-x	xx	xx	**xx**
x-xxx-xx-x	xx	xx	**xx**

Example (b): (Highly-Utilized Emissions Unit – NOx Only)

a. BE NOx

Highly-Utilized Emissions Unit

District Rule 2201 defines a Highly-Utilized Emissions Unit as “an emissions unit for which the average annual Actual Emissions during the 24 consecutive years immediately prior to filing of an application for an Authority to Construct were equal to or greater than 80% of the unit’s pre-project Potential to Emit.” Since the application was filed in January 6, 2023, the District will use information from the two years prior that date, to establish Actual Emissions (AE) from the unit.

The applicant has provided the annual fuel usage for this unit for 2021 and 2022 (i.e. two years prior to the application). The District will also use NOx source test results from the 2021 and 2022 source tests for the unit to establish the AE.

AE:

Throughput	Source test Results
2021: 504,659 MMBtu/year	2021: 0.009 lb-NOx/MMBtu
2022: 489,335 MMBtu/year	2022: 0.011 lb-NOx/MMBtu
(avg): 496,997 MMBtu/year	(avg): 0.010 lb-NOx/MMBtu

2021 AE
504,659 MMBtu/year x 0.009 lb NOx/MMBtu = 4,542 lb-NOx/yr

2022 AE
489,335 MMBtu/year x 0.011 lb NOx/MMBtu = 5,283 lb-NOx/yr

Average AE = (4,542 + 5,283)/2
= 4,913 lb-NOx/hr

PE1 for this unit was 5,555 lb-NOx/year, calculated in Section VII.C.1 above. The AE for NOx represents 88% of the unit's pre-project PE. Therefore, this unit is considered as a Highly Utilized Emissions Unit for NOx emissions. Therefore, FBE=PE1.

FBE = PE1 = 5,555 lb-NOx/year

Offset Ratio

According the Section 4.9 of District Rule 2201, the offset ratio for new major sources and federal major modifications for VOC and NOx is 1.3 to 1 for internal emission reductions (i.e. onsite actual emissions reductions); otherwise, the offset ratio is 1.5 to 1. The offset ratio for PM2.5, PM10, and SOx is 1.0 to 1.

Federal Offset Quantity (FOQ)

New Unit(s) only
Since this project only includes new unit(s)

FOQ = PE2 x offset ratio

New and Modified Unit(s) – NO SLC
Note: If an SLC permit condition is not considered federally enforceable (see below), then the FOQ calculation procedure is the same as if there was no SLC

This project includes new and modified units:

$FOQ = \sum(PE2 - FBE)_{\text{All New and Modified Units}}$ x offset ratio

For new units, FBE = 0

Therefore,

FOQ = [$\sum PE2_{\text{All New Units}} + \sum(PE2 - FBE)_{\text{All Modified Units}}$] x offset ratio

New and Modified Unit(s) – SLC <u>With Federally enforceable condition</u>, meaning at least:

- Throughput limit, fuel limit, or
- Limit to less than xx lb-VOC/year with the equation on how to calculate VOC/month
- <u>and</u>
- Limit on a rolling 12-month, and
- Record keeping requirement

A condition "simply" limiting to less than xx lb-NOx/year is **<u>not</u>** considered as an SLC federally enforceable permit condition.

<u>Note</u>: If an SLC permit condition is not considered federally enforceable, then the FOQ calculation procedure is the same as if there was no SLC, meaning
FOQ = $\sum$(PE2 – FBE) x offset ratio

The VOC emissions from the 2 new units and 3 existing modified units are subject to a federally enforceable permit condition limiting facility-wide VOC emissions to less than xxx lb-VOC/year.

Therefore

FOQ = [$\sum(PE2 - FBE)_{\text{All new and modified units under the SLC}}$] x offset ratio

FOQ = [(SLC – $\sum FBE_{\text{All new and modified units under the SLC}}$] x offset ratio

Only list pollutants for which the project is a Federal Major Modification and delete other pollutants. The calculated Federal Offset Quantity is entered into the Major Modification tracking spreadsheet under the heading "Federal Offset Quantity"

NOx **Offset Ratio** **1.5**

Permit No.	Post-Project Potential to Emit (PE2) (lb/year)	Federal Baseline Emissions (lb/year)	Emissions Change (lb/yr)
X-xxxx-xx-x	xxx	xxx	xxx
X-xxxx-xx-x	xxx	xxx	xxx
X-xxxx-xx-x	xxx	xxx	xxx
		∑(PE2 – FBE) (lb/year):	**xxx**
		Federal Offset Quantity (lb/year): ∑(PE2 – FBE) x 1.5	**xxx**
		Federal Offset Quantity (tons/year): ∑(PE2 – FBE) x 1.5 ÷ 2,000	**xxx**

SOx **Offset Ratio** **1.0**

Permit No.	Post-Project Potential to Emit (PE2) (lb/year)	Federal Baseline Emissions (lb/year)	Emissions Change (lb/yr)
X-xxxx-xx-x	xxx	xxx	xxx
X-xxxx-xx-x	xxx	xxx	xxx
X-xxxx-xx-x	xxx	xxx	xxx
		∑(PE2 – FBE) (lb/year):	**xxx**
		Federal Offset Quantity (lb/year): ∑(PE2 – FBE) x 1.0	**xxx**
		Federal Offset Quantity (tons/year): ∑(PE2 – FBE) x 1.0 ÷ 2,000	**xxx**

PM10 **Offset Ratio** **1.0**

Permit No.	Post-Project Potential to Emit (PE2) (lb/year)	Federal Baseline Emissions (lb/year)	Emissions Change (lb/yr)
X-xxxx-xx-x	xxx	xxx	xxx
X-xxxx-xx-x	xxx	xxx	xxx
X-xxxx-xx-x	xxx	xxx	xxx
		∑(PE2 – FBE) (lb/year):	**xxx**
		Federal Offset Quantity (lb/year): ∑(PE2 – FBE) x 1.0	**xxx**
		Federal Offset Quantity (tons/year): ∑(PE2 – FBE) x 1.0 ÷ 2,000	**xxx**

VOC **Offset Ratio** **1.5**

Permit No.	Post-Project Potential to Emit (PE2) (lb/year)	Federal Baseline Emissions (lb/year)	Emissions Change (lb/yr)
X-xxxx-xx-x	xxx	xxx	xxx
X-xxxx-xx-x	xxx	xxx	xxx
X-xxxx-xx-x	xxx	xxx	xxx
		∑(PE2 – FBE) (lb/year):	**xxx**
		Federal Offset Quantity (lb/year): ∑(PE2 – FBE) x 1.5	**xxx**
		Federal Offset Quantity (tons/year): ∑(PE2 – FBE) x 1.5 ÷ 2,000	**xxx**

3. Federal Offset Equivalency Demonstration

Section 7.0 of District Rule 2201 provides the requirements for the District to demonstrate on an individual ATC issuance basis that the number of creditable emission reductions collected by the District equals or exceeds the amount of creditable emission reductions that would otherwise be required as offsets under a federal non-attainment NSR program meeting the applicable requirements of 40 CFR 51.165 and the CAA.

Example a: Project is not a FMM or NMS, use the following, otherwise delete:

As demonstrated above, this project does not require federal offsets; therefore, a federal offset equivalency demonstration is not required for this project and no further discussion is required.

Example b: Project requires FOQ for NOx and VOC, use the following, otherwise delete:

As discussed above, this project triggers a Federal Major Modification / New Major Modification for NOx and VOC, and federal offset quantities are required for this project for NOx and VOC. Pursuant to section 4.8.1.1 of District Rule 2201, actual emission reductions used to satisfy federal offset quantities for NOx and VOC must be creditable and surplus at the time of use (ATC issuance).

Surplus at the Time Of Use Emission Reduction Credits

The applicant has stated that the facility plans to use ERC certificate(s) X-XXX-X to satisfy the federal offset quantities for NOx and VOC required for this project. Pursuant to the ERC surplus analysis in Appendix XXX, the District has verified that the surplus credits from the ERC certificate(s) provided by the applicant are sufficient to satisfy the federal offset quantities for NOx and VOC required for this project.

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

Federal Offset Quantity (FOQ) Required (lbs)					
Pollutant	**1st Quarter**	**2nd Quarter**	**3rd Quarter**	**4th Quarter**	**Total Annual**
NOx	XXX	XXX	XXX	XXX	XXX
VOC	XXX	XXX	XXX	XXX	XXX

The applicant has proposed to use the following emission reduction certificates with the surplus value of credits summarized as follows:

(Note: Delete the table not needed.)

Surplus NOx Credits Provided (lbs)					
ERC #	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total Annual
S-XXXX-2	XXX	XXX	XXX	XXX	XXX
C-XXXX-2	XXX	XXX	XXX	XXX	XXX

Surplus VOC Credits Provided (lbs)					
ERC #	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total Annual
S-XXXX-1	XXX	XXX	XXX	XXX	XXX
C-XXXX-1	XXX	XXX	XXX	XXX	XXX

As discussed above, the facility has sufficient credits to fully offset the NOx and VOC emissions increases associated with this project.

(Note: interpollutant offsets may also be allowed; however, the facility must justify the proposed interpollutant offset ratio with an interpollutant offset ratio analysis.)

Proposed Rule 2201 Federal Offset Permit Conditions

The following permit conditions will be added to the Authority(ies) to Construct:

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - xxx lb, 2nd quarter - xxx lb, 3rd quarter - xxx lb, and fourth quarter - xxx lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/20/23) for the ERC specified below. VOC ERCs used to satisfy the offset quantity required under District Rule 2201 must be surplus at the time of issuance of this ATC and the total quantity of ERCs surrendered shall be calculated based on the ERC surplus value percent discount of each ERC certificate used. [District Rule 2201]

- {GC# 1983} ERC Certificate Number S-XXXX-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]

Example c: Project requires FOQ for SOx, PM10, or PM2.5, use the following, otherwise delete:

*****PLEASE DISCUSS THE PROJECT WITH YOUR MANAGER/SUPERVISOR*****

4. ERC Withdrawal Calculations

NOTE: *This section is required when offset is triggered and required, otherwise, delete this section.*

The applicant must identify the ERC Certificate(s) to be used to offset the increase of XXX emissions for the project. As previously indicated, the applicant is proposing to use ERC certificate #X-XXXX-X to mitigate the increases of XXX emissions associated with this project. See Appendix XXX 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 SSIPE of greater than 20,000 lb/year for any pollutant,
e. Any project at a minor source which results in an SSPE exceeding 80% of the major source threshold for any pollutant, and/or
f. Any project which results in a Title V significant permit modification

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

Example (a): ***Existing minor source facility NOT becoming a Major Source***
As shown in Section VII.C.5 above, this existing minor source facility is not becoming a Major Source as a result of this project. Therefore, this facility is not a New Major Source and this project does not constitute an SB 288 or a Federal Major Modification. Consequently, public noticing for this project for New Major Source, Federal Major Modification, or SB 288 Major Modification purposes is not required.

Example (b): ***Existing minor source facility*** *becoming Major Source but* ***NOT becoming a New Major Source*** *(as described in Section VII.C.8 above – New Major Source)*
A New Major Source is a new facility which is also a Major Source or is an existing minor source facility becoming a New Major Source as a result of the project (the project itself has an emission increase as large as a new major source). As shown in Section VII.C.8 above, this existing minor source facility is becoming a Major Source

as a result of this project but is not a New Major Source pursuant to 40 CFR 51.165 a(1)(iv)(A)(3). Therefore, this facility is not a New Major Source and this project does not constitute an SB 288 or a Federal Major Modification. Consequently, public noticing for this project for New Major Source, Federal Major Modification, or SB 288 Major Modification purposes is not required.

Example (c): ***Existing minor source facility becoming a New Major Source)***
A New Major Source is a new facility, which is also a Major Source or an existing minor source facility becoming a New Major Source as a result of the project (the project itself has an emission increase as large as a new major source). As shown in Section VII.C.8 above, pursuant to 40 CFR 51.165 a(1)(iv)(A)(3), this existing minor source facility is becoming a New Major Source for NOx and VOC as a result of this project. Therefore, public noticing is required for this project for New Major Source purposes.
(Note: For New Major Sources/Federal Major Modifications, an additional section in the EE gets added, Section VIII-Rule 2201-G, see below)

Example (d): ***Existing Major Source facility NOT*** *triggering SB 288 Major Modification or Federal Major Modification, and facility is NOT a New Major Source*
As demonstrated in Sections VII.C.7 and VII.C.8, this project does not trigger an SB 288 or a Federal Major Modification and the facility is not a New Major Source. Therefore, public noticing for this project for New Major Source, Federal Major Modification, or SB 288 Major Modification purposes is not required.

Example (e): ***Existing Major Source facility triggering SB 288 Major Modification and/or Federal Major Modification***
As demonstrated in Section VII.C.7 of this evaluation, this project is an SB 288 Major Modification / a Federal Major Modification. Therefore, public noticing is required for this project for SB 288 Major Modification / Federal Major Modification purposes.

(Note: For New Major Sources/Major Modifications, an additional section in the EE gets added, Section VIII-Rule 2201-G, see below)

Example (f): ***New facility NOT becoming New Major Source***
As shown in Section VII.C.5 above, the SSPE2 of this new facility is not greater than the Major Source threshold for any pollutant. Therefore, this new facility is not a New Major Source and public noticing for this project for New Major Source, Federal Major Modification, or SB 288 Major Modification purposes is not required.

Example (g): ***New facility becoming New Major Source***
A New Major Source is a new facility, which is also a Major Source or an existing minor source facility becoming a New Major Source as a result of the project (the project itself has an emission increase as large as a new major source). As shown in Section VII.C.5 above, the SSPE2 of this new facility is greater than the Major Source threshold for NOx and VOC. Therefore, this new facility is a New Major Source and public noticing is required for this project for New Major Source purposes..

(Note: For New Major Sources/Major Modifications, an additional section in the EE gets added, Section VIII-Rule 2201-G, see below)

b. PE > 100 lb/day

For new emissions units, public notification is required if the PE exceeds 100 lb/day for any pollutant.

Example (a): (For a project not including a new emissions unit.)
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.

Example (b): (For a project including a new emissions unit – 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.

Example (c): (For a project including a new emissions unit – PE > 100 lb/day.)
The PE2 for this new unit is compared to the daily PE Public Notice thresholds in the following table:

PE > 100 lb/day Public Notice Thresholds			
Pollutant	**PE2 (lb/day)**	**Public Notice Threshold**	**Public Notice Triggered?**
NOx	xx	100 lb/day	Yes
SOx	xx	100 lb/day	No
PM10	xx	100 lb/day	No
CO	xx	100 lb/day	Yes
VOC	xx	100 lb/day	No

Therefore, public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

Public notification is required if the SSPE1 is increased from a level below the offset threshold to a level exceeding the emissions offset threshold, for any pollutant.

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 (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE1	XXX	XXX	XXX	XXX	XXX
SSPE2	XXX	XXX	XXX	XXX	XXX
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Public Notice Required?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Example (a): (For a project not surpassing the offset threshold.)
As demonstrated above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

Example (b): (For a project surpassing the offset threshold.)
As demonstrated above, offset thresholds were surpassed for NOx with this project; therefore public noticing is required for offset purposes.

(Note: Public notification is independent of whether or not Offsets are required. For example, if this project involves the installation of emergency (offset-exempt) equipment and the offset threshold is surpassed, then public notification would still be triggered. And conversely, if this project involves the installation of new equipment which required offsets; however, the SSPE1 was already greater than the offset threshold, public notification would not be triggered.)

d. SSIPE > 20,000 lb/year

An SSIPE exceeding 20,000 pounds per year for any one pollutant triggers public notice.

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 Rule 2201, the SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE2	XXX	XXX	XXX	XXX	XXX
SSPE1	XXX	XXX	XXX	XXX	XXX
SSIPE	0	0	0	0	0
SSIPE Public Notice Threshold	20,000	20,000	20,000	20,000	20,000
Public Notice Required?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Example (a): (For a project where the SSIPE ≤ 20,000 lb/year)
As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

Example (b): (For a project where the SSIPE > 20,000 lb/year)
As demonstrated above, the SSIPEs for NOx and CO were greater than 20,000 lb/year; therefore public noticing for SSIPE purposes is required.

e. Minor Sources with SSPE Exceeding 80% of Major Source Threshold

Public notification is required for any project for new and/or modified stationary sources at minor source facilities that results in a SSPE exceeding 80% of the major source threshold.

For Minor Sources for one or more pollutants emitted by this project:

As shown in Section VII.C.5 above, the facility is not a Major Source for NOx and VOC. The following table compares the SSPE1 with the SSPE2 in order to determine if 80% of any major source thresholds for NOx and VOC have been surpassed with this project.

80% of Major Source Thresholds (lb/year)					
	NOx	**SOx**	**PM10**	**CO**	**VOC**
SSPE1	XXX	XXX	XXX	XXX	XXX
SSPE2	XXX	XXX	XXX	XXX	XXX
80% of Major Source Threshold	16,000	112,000	112,000	160,000	16,000
Public Notice Required?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Example (a): (For a project where the SSPE2 does not exceed 80% of Major Source thresholds)
As demonstrated above, the SSPE2 did not surpass 80% of the major source threshold for any pollutant emitted by this project; therefore, public noticing for this purpose is not required.

Example (b): (For a project where the SSPE2 exceeds 80% of Major Source threshold)
As demonstrated above, the SSPE2 for NOx and VOC surpassed 80% of the respective major source thresholds with this project; therefore, public noticing for this purpose is required.

For Major Sources for all pollutants emitted by this project:

As seen in Section VII.C.5, since the facility is a Major Source for all pollutants emitted by this project, public noticing for this purpose is not required.

f. Title V Significant Permit Modification

If this facility holds a Title V operating permit:

Example (a): (For a project that triggers a TV significant modification)
As shown in the Discussion of Rule 2520 below, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modifications is required for this project.

Example (b): (For a project that does not trigger a TV significant 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.

If this facility does not hold a Title V operating permit:

Since this facility does not have a Title V operating permit, this change is not a Title V significant modification, and therefore public noticing is not required.

2. Public Notice Action

Indicate if public notification is required for any of the reasons listed above, and then discuss the action required, if there is any.

Example (a): (For a project not requiring public notification.)
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.

Example (b): (For a project requiring public notification – PE > 100 lb/day.)
As discussed above, public noticing is required for this project for NOx emissions in excess of 100 lb/day. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be electronically published on the District's website prior to the issuance of the ATC for this equipment.

(Note: When public notification is required an additional section in the EE gets added, Section VIII-Rule 2201-F, see below)

IMPORTANT NOTE: See FYI-349
*It is critically important that all interested parties be notified of the District's preliminary decision for public notice projects. Therefore, the processing engineer must follow the procedures outlined in **FYI-349** to ensure that each interested party is properly notified of all public notice projects for a given facility.*

D. Daily Emission Limits (DELs)

DELs are listed for all pollutants on a permit unit-by-permit unit, or on an emissions unit-by-emissions unit basis, as the appropriate case may be. Be alert to the facts. Also note, according to APR 1605, "Do not use redundant conditions. If DEL is already established by other conditions, do not write additional conditions intended to do the same thing."

Additionally, please follow **FYI-53** to ensure consistency and grammatical accuracy when writing the permit conditions for the DEL.

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.

Example (a): (For a natural gas-fired IC engine.)
For this IC engine, the DELs are stated in the form of emission factors (g/hp-hr or lb/MMBtu), the maximum engine horsepower rating, and the maximum operational time of 24 hours per day.

Proposed Rule 2201 (DEL) Conditions:

- Emission rates from this unit shall not exceed any of the following limits: NOx (as NO2) - 0.78 g/hp-hr; VOC (as methane) - 0.42 g/hp-hr; CO - 2.50 g/hp-hr; PM10 - 0.01 lb/MMBtu; or SOx (as SO2) - 0.0007 lb/MMBtu. [District Rule 2201]

Example (b): (For an almond pre-cleaning operation.)
For the pre-cleaning operation, the DELs will be stated on permit unit C-XXXX-X, in the form of PM10 emission factors (for the Saunco Model RA12-252 baghouse and for the Mac Model 144MCF baghouse) and the maximum field weight process rate.

Proposed Rule 2201 (DEL) Conditions:

- Emissions from the Saunco Model RA12-252 baghouse shall not exceed 0.046 lb PM10 per ton of field weight almonds processed. [District Rule 2201]

- Emissions from the Mac Model 144MCF baghouse shall not exceed 0.036 lb PM10 per ton of field weight almonds processed. [District Rule 2201]

- The maximum throughput for the receiving/pre-cleaning operation shall exceed either of the following limits: 840 tons of field weight almonds per day or 105,688 tons of field weight almonds per year. [District Rule 2201]

E. Compliance Assurance

List all requirements necessary to ensure compliance with DELs, BACT and Offsets, such as the following.

1. Source Testing

Describe the source test method and frequency.

Example (a): (For most permit units.)
Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

Example (b): (For a boiler with a low NOx burner and an SCR system.)
District Rule 4306 requires NOx and CO emission testing not less than once every 12 months. Gaseous fuel fired units demonstrating compliance on two consecutive compliance source tests may defer the following source test for up to thirty-six months. The District Source Test Policy (APR 1705) requires annual testing for all pollutants controlled by catalysts. The control equipment will include a SCR system and ammonia slip is an indicator of how well the SCR system is performing.

Therefore, source testing for NOx, CO, and ammonia will be required within 60 days of initial operation and at least once every 12 months thereafter. Upon demonstrating compliance on two consecutive source tests, the following source test may be deferred for up to thirty-six months. Source testing for Rule 4306 also satisfies any source testing requirements for Rule 2201. No additional source testing is required.

2. Monitoring

Indicate the type of monitoring required and the basis for the monitoring frequency.

(Note: This monitoring section generally addresses "alternate monitoring" or Continuous Emissions Monitoring Systems (CEMS) as required by prohibitory rules such as 4305 and 4701.)

Example (a): (For most permit units.)
No monitoring is required to demonstrate compliance with Rule 2201.

Example (b): (For a boiler with a low NOx burner and an SCR system.)
District Rule 4306 requires the owner of any unit equipped with NOx reduction technology shall either install and maintain continuous emissions monitoring equipment for NOx, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or install and maintain APCO-approved alternate monitoring plan. Since the boiler will be equipped with a low NOx burner and a selective catalytic reduction system, this requirement applies.

The applicant proposed to utilize pre-approve alternate monitoring plan "A" (Periodic Monitoring NOx, CO, and O_2 Emissions Concentrations) to meet the requirements of

District Rule 4306. Monitoring for Rule 4306 also satisfies the monitoring requirements for Rule 2201. No additional monitoring is required.

3. Recordkeeping

List all required recordkeeping.

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following condition(s) are listed on the permit to operate:

Example (a): (For an almond pre-cleaning operation.)

- Daily and annual records of field weight almonds processed shall be maintained, retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 1070]

Example (b): (For a boiler with an annual fuel use limit.)

- Records of monthly natural gas consumption shall be maintained, retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 4306]

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

- The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, and the O2 concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be maintained, retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 4306]

4. Reporting

List any necessary reporting.

(Note: This reporting section generally refers to requirements outlined by rules or regulations where the facility is to submit reports to the District.)

Example (a): (For most permit units.)
No reporting is required to demonstrate compliance with Rule 2201.

Example (b): (For a boiler subject to 40CFR60 Subpart Db.)
40 CFR Part 60 Subpart Section 60.49b paragraph (h)(2) requires that the owner submit quarterly excess emission reports for any calendar quarter during which there are excess emissions. It also requires semiannual reports stating that there have been no excess emissions during periods when there have been no excess emissions. Such reporting will

be required and will satisfy the reporting requirements for Rule 2201. No additional reporting is required.

F. Ambient Air Quality Analysis (AAQA)

(Note: Applicable only when public notice is triggered, otherwise delete this section.)

An AAQA is conducted by the Technical Services group, for any project which has an increase in emissions and triggers public notification requirements. Discuss the AAQA results as follows.

For example:
Section 4.15 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 XXX of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NOx, CO, and SOx. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NOx, CO, or SOx.

The proposed location is in a non-attainment area for the state's PM10 as well as federal and state PM2.5 thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM10 and PM2.5.

(Note: Special permit conditions may be required as a result of the AAQA.)

G. Compliance Certification

*(This section applies to **New Major Sources/Major Modifications only**, otherwise delete this section.)*

The compliance certification is required for any project, which constitutes a New Major Source or a Federal Major Modification.

For example:
Section 4.15.2 of this Rule requires the owner of a New Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, this facility is a new major source and this project does constitute a Federal Major Modification, therefore this requirement is applicable. Corporation XYZ's compliance certification is included in Appendix XXX.

(Note: On a case-by-case basis, extra research may be required to verify whether or not the other Major Source facilities owned or operated by the facility are in fact in compliance (i.e. contacting other Air Districts). If any facilities are out of compliance, the District cannot proceed with the issuance of the ATC(s).)

H. Alternate Siting Analysis

Alternative siting analysis is required for any project, which constitutes a New Major Source or a Federal Major Modification.

The current project occurs at an existing facility. The applicant proposes to install a [Insert project description].

Since the project will provide [Insert description] 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.

I. Visibility Impact Analysis

If this project is a NMS or a FMM under Rule 2201, then the project will need to be assessed for its potential to adversely impact visibility on the nearest Mandatory Class I Federal Area (MCFA). Only one of the following scenarios will apply to a project.

Scenario 1a: (project not a NMS or FMM)

If this project is not a NMS or a FMM under Rule 2201, choose the paragraph below and delete the Scenario 1b. Otherwise delete this scenario.

Section 4.16.3 of District Rule 2201 requires the District, in consultation with the designated Federal Land Manager (FLM), to assess the impact of the emissions from New Major Sources and Federal Major Modifications to visibility in the nearest or most affected Mandatory Class I Federal Area (MCFA). As shown in Section VII.C.8 above, this project is not a New Major Source or a Federal Major Modification for any pollutant; therefore, a visibility impact assessment under Section 4.16.3 is not required, and no further analysis is required.

Scenario 1b: (project is a NMS or FMM, but is not a source of NOx, SOx, PM10, and sulfuric acid emissions)

If this project is a NMS or FMM for VOC or CO, and has either no NOx, SOx, PM10, and sulfuric acid mist emissions or a net emissions increase below the NSR significance threshold of ≤ 0.5 lb/day for each pollutant according to the guidance under APR 1150, *Implementation of Rule 2201 for SB 288 and Federal Major Modifications*, then choose the following paragraph. Otherwise delete this scenario.

Section 4.16.3 of District Rule 2201 requires the District, in consultation with the designated Federal Land Manager (FLM), to assess the impact of the emissions from New Major Sources and Federal Major Modifications to visibility in the nearest or most affected Mandatory Class I Federal Area (MCFA). As shown in Section VII.C.8 above, this project is a [choose one] New Major Source or Federal Major Modification for VOC and/or CO; therefore, a visibility impact assessment under Section 4.16.3 is required. A visibility impact assessment evaluates the impact to visibility from a project's total NOx, SOx, PM10, and

sulfuric acid mist emissions to the nearest or most affected MCFA. [choose one] However, since this project is not a source of NOx, SOx, PM10, or sulfuric acid mist emissions, this project is presumed to have no adverse impact on visibility at any MCFA, and no further analysis is required. or However, the increases of NOx, SOx, PM10, and sulfuric acid mist emissions from this project are below the District's significance threshold (i.e. averaging ≤ 0.5 lb/day for each pollutant) for triggering New Source Review requirements under District Policy APR 1150, *Implementation of Rule 2201 for SB 288 and Federal Major Modifications*. Therefore, this project is presumed to have no adverse impact on visibility at any MCFA, and no further analysis is required.

NOTE: *If not one of the scenarios above…*

******PLEASE DISCUSS THE PROJECT WITH YOUR MANAGER/SUPERVISOR******

Rule 2410 Prevention of Significant Deterioration

Example (a):
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.

OR

Example (b):
As shown in Section VII.C.9 above, this project results in a new major PSD source for ___ and ___.

If the project is subject to Rule 2410 for a regulated pollutant AND CO2e emission increase is greater than 75,000 ton/year. BACT is required for CO2e as well.

(i) BACT for all emission units in the project that have any emission increase and only for those pollutants for which the project has a signficant emission increase (for new major sources) or a significant net emission increase (for existing major sources), see 40CFR 52.21(j). Please note that in such cases BACT is required for fugitive emission sources as well, even if the source category is not listed in 40 CFR 52.21 (b)(1)(iii))
(ii) Ambient air quality impact analysis (including secondary emissions), see 40CFR 52.21(k), (except for GHG emission increases)
(iii) Ambient air quality monitoring, see 40CFR 52.21(m), (except for GHG emission increases)
(iv) Additional impact analyses, including visibility, soils, vegetation, see 40CFR 52.21(o), (except for GHG emission increases)
(v) Public noticing requirements pursuant to Rule 2410 and District guidance

Please discuss with your supervisor.

OR

Example (c):
As shown in Section VII. C. 9. above, this project results in a major PSD modification for ___ and ___.

If the project is subject to Rule 2410 for a regulated pollutant AND CO2e emission increase is greater than 75,000 ton/year. BACT is required for CO2e as well.

(i) BACT for all emission units in the project that have any emission increase and only for those pollutants for which the project has a signficant emission increase (for new major sources) or a significant net emission increase (for existing major sources), see 40CFR 52.21(j). Please note that in such cases BACT is required for fugitive emission sources as well, even if the source category is not listed in 40 CFR 52.21 (b)(1)(iii))
(ii) Ambient air quality impact analysis (including secondary emissions), see 40CFR 52.21(k), (except for GHG emission increases)
(iii) Ambient air quality monitoring, see 40CFR 52.21(m), (except for GHG emission increases)
(iv) Additional impact analyses, including visibility, soils, vegetation, see 40CFR 52.21(o), (except for GHG emission increases)
(v) Public noticing requirements pursuant to Rule 2410 and District guidance

Please discuss with your supervisor.

Rule 2520 Federally Mandated Operating Permits

Example (a): *(For a facility becoming a major source as the result of this project by crossing the existing major source threshold (and no change has been made in the major source threshold since the project had been deemed complete).)*
As discussed above, this facility is a major source. Pursuant to Rule 2520 and as required by permit condition, the facility will have up to 12 months from the date of ATC issuance to either submit a Title V Application or comply with District Rule 2530 *Federally Enforceable Potential to Emit.*

Example (b): *(For a facility that is not a major source before or after the project.)*
Since this facility's potential emissions do not exceed any major source thresholds of Rule 2201, this facility is not a major source, and Rule 2520 does not apply.

Example (c): *(For a facility that is an existing major source but has not received their Title V permit.)*
Pursuant to their current operating permit, this facility is an existing major source; however, the facility has not received their Title V permit. An application to comply with Rule 2520 - *Federally Mandated Operating Permits* has already been submitted to the District. Therefore, no action is required at this time.

Example (d): *(For a facility that is an existing major source, has a Title V permit, and is proposing a Title V Minor Modification.)*

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, Minor Permit Modifications are permit modifications that:

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

Additionally, Section 11.4 requires a description of the proposed change, the emissions resulting from the change, any new applicable requirements that will apply if the change occurs, suggested draft permits, compliance certification and an EPA 45-day review period of the proposed permit modification (or a shorter period if EPA has notified the District that EPA will not object to issuance of the permit modification, whichever is first).

With COC (otherwise delete):
As discussed above, the facility has applied for a Certificate of Conformity (COC) and the District will forward to EPA, for a 45-day review period, this application review which includes the proposed modified Title V permit [i.e. proposed ATC(s)] and the compliance certification form which demonstrates compliance with the minor permit modification requirements in Section 11.4. Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment application.

Without COC (otherwise delete):
As discussed above, the facility has not applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with a minor modification, prior to operating with the proposed modifications. Upon receipt of the minor modification application, the District will forward to EPA, for a 45-day review period, the proposed modified Title V permit, the ATCs issued in this project, a compliance certification form, and a copy of this evaluation, which demonstrates compliance with the minor permit modification requirements in Section 11.4. The facility may construct/operate under the ATC upon submittal of the Title V minor modification application.

Example (e): (For a facility that is an existing major source, has a Title V permit, and is proposing a Title V Significant Modification.)

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."

(Utilize the appropriate minor modification definition section to qualify the project as a significant modification; follow the format of one of the sample discussions below):

(Sample Discussion 1 – Federal Major Modification)

Section 3.20.5 states that a minor permit modification is a permit modification that is not a major modification, as defined in Rule 2201. As discussed above, this project triggers a Federal Major Modification. As a result, the proposed project constitutes a Significant Modification to the Title V Permit pursuant to Section 3.29.

(Sample Discussion 2 - relaxation in monitoring)

Minor permit modifications do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions. The monitoring method will be changing from a CEMS to a parametric equation, which is a relaxation in monitoring conditions, as noted in ATC project C-1043772 for C-722-2-9. As a result, the proposed project constitutes a Significant Modification to the Title V Permit.

(Sample Discussion 3 - NSPS triggered)

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 (not) applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with a(n) administrative amendment/minor modification, 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.

(If not proceeding w/COC issuance, inform applicant it is recommended to have ATC issued with a COC so that EPA can review changes prior to construction/ATC implementation.)

Example (f): (When the source is major under the latest NSR rule, and NOT major under the NSR rule in effect when the application was deemed complete - Very rare occurrence.)

Since this facility's emissions exceed the new major source thresholds of the latest version of Rule 2201, this facility is now a major source subject to Title V requirements. Pursuant to Rule 2520, and as required by permit condition, the facility will have to either submit a Title V Application or comply with District Rule 2530 *Federally Enforceable Potential to Emit*.

Example (g): (If the facility is a Rule 2530 source, include the following and Rule 2530 discussion)

Since this facility's emissions exceed the major source thresholds of District Rule 2201, this facility is a major source. However, this facility has elected to comply with Rule 2530, exempts it from the requirements of Rule 2520.

Rule 2530 Federally Enforceable Potential to Emit

The purpose of this rule is to restrict the emissions of a stationary source so that the source may elect to be exempt from the requirements of Rule 2520. Pursuant to Rule 2530, since this facility has elected exemption from the requirements of Rule 2520 by ensuring actual emissions from the stationary source in every 12-month periods to not exceed the following: ½ the major source thresholds for NOx, VOCs, CO, and PM10; 50 tons per year SO2; 5 tons per year of a single HAP; 12.5 tons per year of any combination of HAPs; 50 percent of any lesser threshold for a single HAP as the EPA may establish by rule; and 50 percent of the major source threshold for any other regulated air pollutant not listed in Rule 2530.

All Other 2000 Series Rules

Include all other 2000 series rules which apply to this project (i.e. District Rules 2530 – Federally Enforceable Potential to Emit, 2540 – Acid Rain Program, or 2550 – Federally Mandated Preconstruction Review for Major Sources of Air Toxics). State the relevant requirements and include discussions that demonstrate that compliance is expected.

Rule 4001 New Source Performance Standards (NSPS)

Example 1*: (Operation not subject to NSPS):*
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. However, no subparts of 40 CFR Part 60 apply to [insert operation type].

Example 2:
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-Industrial Steam Generators between 10 MMBtu/hr and 100 MMBtu/hr (post-6/9/89 construction, modification or, reconstruction)

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

No newly constructed or reconstructed units are proposed in this project, nor is the unit being modified (as defined above). Since the permittee is retrofitting the unit with an equivalent size, or smaller, burner for compliance with District rules and regulations, the requirements of these sections do not apply to the unit.

Example 3: (*For operation types subject to a NSPS that District has not been delegated authority to implement):*
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 IIII applies to Stationary Compression Ignition Internal Combustion Engines. The District has not been delegated the authority to implement NSPS regulations; therefore, no requirements shall be included on the permit.

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

Example 1 (For operation types that are not subject to NESHAPs):
This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to [insert operation type] operations.

Example 2 (Can Coating):
This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63.

The requirements of 40 CFR Part 63, Subpart KKKK (National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans) are applicable to facilities that use 1,500 gallons per year, or more, of coatings in the source category defined in section 63.3481 (a) of this regulation and that is a Major HAP source (as defined in 40 CFR 63.2 – Definitions).

The facility is proposing to add conditions that limit the facility's HAP emissions to be below Major HAP Source thresholds. Therefore, the requirements of this regulation do not apply.

Example 3 (For operation types subject to a NESHAP that District has not been delegated authority to implement):
This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. 40 CFR Part 63, Subpart ZZZZ applies to Stationary Reciprocating Internal Combustion Engines. The District has not been delegated the authority to implement NESHAP regulations; therefore, no requirements shall be included on the permit.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge air contaminant shall which is as dark as or darker than 20% opacity. Discuss compliance is expected. Check inspection files for any prior violations or problems with opacity.

For example: (For a natural gas-fired IC engine.)
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 IC engine is fired solely on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Also, based on past inspections of the facility continued compliance is expected.

Rule 4102 Nuisance

Rule 4102 states that no air contaminant shall be released into the atmosphere which causes a public nuisance. Discuss how any potential nuisances (dust, smell, etc.) will be minimized. Check inspection files for any prior nuisance reports or complaints.

For example: (For most permit units.)
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)

Discuss whether a Health Risk Assessment is required and/or the results of the HRA, including any special conditions to consider when issuing the ATC(s).

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.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification of an existing source shall not result in an increase in cancer risk greater than the District's significance level (20 in a million) and shall not result in acute and/or chronic risk indices greater than 1.

Example (a): (For a project with no increase in emissions.)
As demonstrated above, there are no increases in emissions associated with this project, therefore a health risk assessment is not necessary and no further risk analysis is required.

(Note 1: An HRA is necessary if there is a change in any HRA parameter, i.e. exhaust flow rate changes, stack changes, fuel use and type changes, receptor distances, etc.)

(Note 2: If example (a) is used, delete the following sections, since they don't apply if an HRA was not performed.)

Example (b): (For a project with a Prioritization score ≤ 1.)
An HRA is not required for a project with a total facility prioritization score of less than or equal to one. According to the Technical Services Memo for this project, the total facility prioritization score including this project was less than or equal to one.

The resulting prioritization score for this project is shown below.

Health Risk Assessment Summary	
	Worst Case Potential
Prioritization Score	[X]

In accordance with District policy APR 1905, no further analysis is required to determine the impact from this project and compliance with the District's Risk Management Policy is expected.

Compliance with District Rule 4102 requirements is expected.

See Appendix XXX: Health Risk Assessment Summary

Example (c): (For a project with a Prioritization score > 1.)

According to the Technical Services Memo for this project, the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The resulting prioritization score, acute hazard index, chronic hazard index, and cancer risk for this project is shown below.

Health Risk Assessment Summary	
	Worst Case Potential
Prioritization Score	[X]
Cancer Risk	[X]
Acute Hazard Index	[X]
Chronic Hazard Index	[X]
T-BACT Required?	Yes/No

Discussion of T-BACT

Discuss whether a T-BACT is or is not triggered and the requirements which satisfy T-BACT (if any).

Example (a): *(For a project where T-BACT not triggered.)*
BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As shown above, T-BACT is not required for this project because the HRA indicates that the worst case cancer risk does not exceed one in one million; therefore, compliance with the District's Risk Management Policy is expected.

In accordance with District policy APR 1905, no further analysis is required, and compliance with District Rule 4102 requirements is expected.

See Appendix XXX: Health Risk Assessment Summary

Example (b):(For a project where T-BACT is triggered [for PM10 and VOC] – Motor vehicle coating operation.)
BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As shown above, T-BACT is required for this project because the HRA indicates that the worst case cancer risk does exceed one in one million.

For this project, T-BACT is triggered for PM10 and VOC. T-BACT is satisfied with BACT for PM10 and VOC (see Appendix XXX), which is the use of HVLP spay guns, coatings compliant with District Rules, enclosed paint gun cleaners, and a spray booth with exhaust filters; therefore, compliance with the District's Risk Management Policy is expected.

In accordance with District policy APR 1905, no further analysis is required, and compliance with District Rule 4102 requirements is expected.

See Appendix XXX: Health Risk Assessment Summary

List all conditions necessary to ensure that the equipment is operated in the manner assumed when the RMR was performed.

The following permit conditions are required to ensure compliance with the assumptions made for the risk management review:

- [Add HRA Conditions]

For example: *(For a diesel-fired IC engine.)*
- Engine may be fired only on CARB Certified ultra-low sulfur fuel (0.0015% S).
- PM10 rate shall not exceed 0.08 g/hp-hr.
- The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction.
- Engine must be operated with a positive crankcase ventilation system.

- Annual operation shall not exceed 400 hours per year.

Rule 4201 Particulate Matter Concentration

State the purpose of the Rule and include the calculation.

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.

Example (a): (For a diesel-fired IC engine.)

$$0.015 \quad \frac{g}{hp \cdot hr} \times \frac{1 hp \cdot hr}{2{,}542.5 Btu} \times \frac{10^6 Btu}{9{,}051 dscf} \times \frac{0.35 Btu_{out}}{1 Btu_{in}} \times \frac{15.43 grain}{g} = \quad 0.004 \quad \frac{grain}{dscf}$$

Since 0.004 grain/dscf is less than 0.1 grain/dscf, compliance with this rule is expected.

Example (b): (For a baghouse.)

$$\text{PM Conc. (gr/scf)} = \frac{\text{(PM emission rate) x (7,000 gr/lb)}}{\text{(Air flow rate) x (60 min/hr) x (24 hr/day)}}$$

PM10 emission rate = 10.8 lb/day. Assuming 100% of PM is PM10
Exhaust Gas Flow = 19,150 scfm

PM Conc. (gr/scf) = [(10.8 lb/day) ∗ (7,000 gr/lb)] ÷ [(19,150 ft^3/min) ∗ (60 min/hr) ∗ (24 hr/day)]
PM Conc. = 0.003 gr/scf

All Other 4000 Series Rules

Include all other Prohibitory Rules which apply to this project. State the relevant requirements and show any applicable calculations that demonstrate that compliance is expected.

Any Other Rules or Regulations

Include all other rules or regulations which apply to this project (i.e. 7000 Series Rules, 8000 Series Rules, CEQA, etc.). State the requirements, show the necessary calculations, and demonstrate compliance with the requirements.

California Health & Safety Code 42301.6 (School Notice)

Reference project location and its proximity to a school and state whether or not school notice is required for this project.

(Note: Refer to FYI - 71 for guidance on how to process a School Notice project.)

Example (a): (For a Non-School Notice project - > 1,000 feet.)
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.

Example (b): (For a Non-School Notice project – no increase in emissions)
The District has verified that this site is located within 1,000 feet of a school. However, pursuant to California Health and Safety Code 42301.6, since this project will not result in an increase in emissions, a school notice is not required.

Example (c): (For a School Notice project.)
The District has verified that this site is located within 1,000 feet of the following school.

School Name: [Name]
Address: [Address]

Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is required. Prior to the issuance of the ATC for this equipment, notices will be provided to the parents/guardians of all students of the affected school, and will be sent to all residents within 1,000 ft of the site.

[If there is no school w/in ¼ mile of the emissions increase, include the following discussion, otherwise delete]:
The District has verified that there are no additional schools within ¼ mile of the emission source.

[If there is a school w/in ¼ mile of the emissions increase, include the following discussion, otherwise delete]:
Since a school notice has been triggered (due to the above-listed school within 1,000 of the emission source), notices will also be provided to the parents/guardians of all students from all school sites within ¼ mile of the emission source. The following schools(s) are within ¼ mile of the emission source.

School Name: [Name]
Address: [Address]
(add additional schools if necessary)

California Environmental Quality Act (CEQA)

For oil and gas projects located in Kern County, projects with potentially significant environmental impacts, or for projects of public concern, please coordinate with the CEQA supervisor, otherwise utilize the following:

As demonstrated in this evaluation, the project will not result in any significant impacts; therefore, the project is exempt per the common sense exemption that CEQA applies only to projects that have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), an indemnification agreement (IA) and/or a letter of credit (LOC) may be required. The decision to require an IA and/or an LOC is based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

Example (a): Use the following paragraph for ATC projects that are subject to CEQA, but are not expected to be of public concern. For instance, projects that meet BOTH of the following criteria:

1) **Not** a facility/operation of potential concern as described in FYI-141, and
2) The SSIPE is below **all** CEQA significance thresholds (10 tons-NOx, 10 tons-VOC, 15 tons-PM10 or PM2.5, 27 tons-SOx, or 100 tons-CO)

The criteria pollutant emissions and toxic air contaminant emissions associated with the proposed project are not significant, and there is minimal potential for public concern for this particular type of facility/operation. Therefore, an IA and/or an LOC will not be required for this project.

If not covered above, discuss and obtain the appropriate IA/LOC language from Technical Services which will address the reasons for requiring or not requiring an IA/LOC.

IX. Recommendation

Recommend that the project will be approved or denied and reference the attached Authority(s) to Construct.

Example (a): (For a project where noticing (public, school, or EPA) is not required.)
Compliance with all applicable rules and regulations is expected. Issue ATC X-XXXX-X-X subject to the permit conditions on the attached draft ATC in Appendix XXX**.**

Example (b): (For a project where public noticing is triggered.)
Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC X-XXXX-X-X subject to the permit conditions on the attached draft ATC in Appendix XXX.

Example (c): (For a project where school noticing is triggered.)
Compliance with all applicable rules and regulations is expected. Pending a successful School Noticing period, issue ATC X-XXXX-X-X subject to the permit conditions on the attached draft ATC in Appendix XXX**.**

X. Billing Information

Reference Rule 3020 and list the specific fee schedule for each permit unit for the project.

Note: Include all necessary calculations. If extensive lists are required to determine the electric motor horsepower, then include them in a table in the appendix or under the equipment description in Section V of this evaluation.)

Annual Permit Fees			
Permit Number	**Fee Schedule**	**Fee Description**	**Annual Fee**
C-XXXX-X-X	3020-02-H	5.0 MMBtu/hr boiler	$XXX
C-XXXX-X-X	3020-10-F	1,529 bhp IC engine	$XXX

XI. Appendices

Reference, attach, and label all supporting documentation referenced in the EE. Do not reference or include the Emission Profile(s) if a Public Notice project.

For example
A: Draft ATC
B: Current PTO(s)
C: BACT Guideline
D: BACT Analysis
E: HRA Summary
F: SSPE1 Calculations *(delete if not necessary)*
G: SSPE2 Calculations *(delete if not necessary)*
H: CEQA GHG: Project specific Analysis *(delete if not necessary)*
I: Quarterly Net Emissions Change
J: Emission Profile(s) *(see note below)*
K: Compliance Certification
L: ERC Withdrawal Calculations *(delete if offsets are not required)*

(Note: For public notice projects, the Emission Profiles are not included as a part of the Engineering Evaluation package; remove them as an appendix and put in project file.)

APPENDIX A
Draft ATC

APPENDIX B
Current PTO(s)

APPENDIX I
Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

The QNEC is entered into PAS database and subsequently reported to CARB. For seasonal sources, or where the emissions differ quarter to quarter, then evaluate each pollutant for each quarter separately. The QNEC is calculated for each pollutant, for each unit, as the difference between the post-project quarterly potential to emit (PE2) and the pre-project quarterly potential to emit (PE1).

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
PE2 = Post-Project Potential to Emit for each emissions unit, lb/qtr.
PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

Example (a): (For year-round sources.)
Using the values in Sections VII.C.2 and VII.C.1 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
= 4,600 lb/year ÷ 4 qtr/year
= 1,150 lb PM10/qtr

$PE1_{quarterly}$ = $PE1_{annual}$ ÷ 4 quarters/year
= 4,600 lb/year ÷ 4 qtr/year
= 1,150 lb PM10/qtr

Quarterly NEC [QNEC]			
Pollutant	**PE2 (lb/qtr)**	**PE1 (lb/qtr)**	**QNEC (lb/qtr)**
NOx	0	0	0
SOx	0	0	0
PM10	1,150	1,150	0
CO	0	0	0
VOC	0	0	0

(Note: Include a table for each permit unit, if it makes sense to do so.)

Example (b): (For seasonal sources.)
As discussed in Section VII.A, this facility is a seasonal source that only operates during the 2nd and 3rd quarters. Using the values in Sections VII.C.2 and VII.C.6 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 2 quarters/year
= 4,600 lb/year ÷ 2 qtr/year
= 2,300 lb PM10/qtr

$PE1_{quarterly}$= $PE1_{annual}$ ÷ 2 quarters/year
= 4,600 lb/year ÷ 2 qtr/year
= 2,300 lb PM10/qtr

Quarterly NEC [QNEC]					
	NOx (lb/qtr)	**SOx (lb/qtr)**	**PM10 (lb/qtr)**	**CO (lb/qtr)**	**VOC (lb/qtr)**
PE2	0	0	0	0	0
PE1	0	0	0	0	0
1st Quarter	0	0	0	0	0
PE2	0	0	2,300	0	0
PE1	0	0	2,300	0	0
2nd Quarter	0	0	0	0	0
PE2	0	0	2,300	0	0
PE1	0	0	2,300	0	0
3rd Quarter	0	0	0	0	0
PE2	0	0	0	0	0
PE1	0	0	0	0	0
4th Quarter	0	0	0	0	0

(Note: For emissions units covered by a Specific Limiting Condition (SLC) use the following:)

NEC_{SLC} = $PE2_{SLC}$ - $PE1_{SLC}$, where:

NEC_{SLC} = Quarterly Net Emissions Change for units covered by the SLC.
$PE2_{SLC}$ = PE2 for all units covered by the SLC.
$PE1_{SLC}$ = PE1 for all units covered by the SLC.

APPENDIX L
ERC Withdrawal Calculations

The purpose of this Appendix is to have the ATC permitting engineer perform the ERC withdrawal calculations under the ATC engineering evaluation. In order to streamline the ERC withdrawal process, this Appendix will be included as an attachment to the ERC Withdrawal application review.

Note: See Section 4.8 of Rule 2201 for the appropriate Distance Offset Ratio for the project.

The examples shown below are for simple ERC withdrawals where the proposed certificate has enough credits available in each quarter to fully satisfy the offset requirements of the project. Please refer to Section 4.13 of Rule 2201 for any facility proposing to utilize inter-pollutant offsets or transfer credits from one quarter to another. Adjust presentation accordingly based on the project.

If project requires offsets for other pollutants, add additional tables as appropriate. Otherwise, delete unnecessary tables.

NOx	1st Quarter (lb)	2nd Quarter (lb)	3rd Quarter (lb)	4th Quarter (lb)
ERC S-XXXX-2	45,684	47,927	46,196	44,813
Offsets Required (Includes distance offset ratio)	5,418	5,419	5,419	5,419
Amount Remaining	40,266	42,508	40,777	39,394
Credits reissued under ERC S-YYYY-2	40,266	42,508	40,777	39,394

VOC	1st Quarter (lb)	2nd Quarter (lb)	3rd Quarter (lb)	4th Quarter (lb)
ERC C-XXXX-1				
Offsets Required (Includes distance offset ratio)				
Amount Remaining				
Credits reissued under ERC C-YYYY-1				

PM10	1st Quarter (lb)	2nd Quarter (lb)	3rd Quarter (lb)	4th Quarter (lb)
ERC N-XXXX-4				
Offsets Required (Includes distance offset ratio)				
Amount Remaining				
Credits reissued under ERC N-YYYY-4				