



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT



HEALTHY AIR LIVING™

OCT 04 2011

Mr. Ken Bork
Plains Exploration & Production Company
1200 Discovery Drive, Suite 500
Bakersfield, CA 93309

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-1327 1372
Project # 1111509

Dear Mr. Bork:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. The applicant is requesting that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project authorizes a 6.6 MMBtu/hr standby flare with air assist and continuous propane pilot.

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

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

DW: RE/cm

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
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Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
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San Joaquin Valley

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OCT 04 2011

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

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-1327-1372
Project # 1111509

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authority to Construct for Plains Exploration & Production Company within the heavy oil production stationary source in western Kern County fields, which has been issued a Title V permit. Plains Exploration & Production Company is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. The project authorizes a 6.6 MMBtu/hr standby flare with air assist and continuous propane pilot.

Enclosed is the engineering evaluation of this application with a copy of the current Title V permit and proposed Authority to Construct # S-1372-408-0 with Certificate of Conformity. After demonstrating compliance with the Authority to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

DW: RE/cm

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OCT 04 2011

Mike Tollstrup, Chief
Project Assessment Branch
Air Resources Board
P O Box 2815
Sacramento, CA 95812-2815

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-1327 1372
Project # 1111509

Dear Mr. Tollstrup:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. The applicant is requesting that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project authorizes a 6.6 MMBtu/hr standby flare with air assist and continuous propane pilot.

Enclosed is the engineering evaluation of this application with a copy of the current Title V permit and proposed Authority to Construct # S-1372-408-0 with Certificate of Conformity. After demonstrating compliance with the Authority to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 30-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

DW: RE/cm

Enclosures

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

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed modification of Plains Exploration & Production Company for its heavy oil production stationary source within the heavy oil production stationary source in western Kern County fields, California. The project authorizes a 6.6 MMBtu/hr standby flare with air assist and continuous propane pilot.

The District's analysis of the legal and factual basis for this proposed action, project #1111509, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. This will be the public's only opportunity to comment on the specific conditions of the modification. If requested by the public, the District will hold a public hearing regarding issuance of this modification. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed initial permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CA 93726-0244.

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Reauthorized Uncontrolled Crude Oil Storage Tank

Facility Name: Plains Exploration & Production Company Date: September 29, 2011
Mailing Address: 1200 Discovery Drive, Suite 500 Engineer: Richard Edgehill
Bakersfield, CA 93309 Lead Engineer: Richard Karrs
Contact Person: Ken Bork and Charlotte Campbell
Telephone: (661) 395-5458 (KB), (661) 330-0428 (KB cell)
Fax: (661) 395-5298
E-Mail: kbork@pxp.com
Application #(s): S-1372-408-0
Project #: 1111509
Deemed Complete: August 10, 2011

I. Proposal

Plains Exploration & Production Company (PXP) is requesting an Authority to Construct to authorize a 6.6 MMBtu/hr standby flare. The flare will be used to combust vapors from recently authorized vapor control system S-1372-405 (ATC S-1372-405-0, project 1104732) when disposal wells and compressors are undergoing planned maintenance, downhole well maintenance, power outages, upsets, etc. Applicant proposes a permit condition limiting the flare's use to a total of 45 calendar days per year.

The project is a Federal Major Modification and therefore public notice is required. Offsets and BACT are not required.

PXP is a major stationary source with a Title V permit. The project is a Federal Major Modification and therefore it is classified as a Title V Significant Modification pursuant to Rule 2520, Section 3.20, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. PXP must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC(s) issued with this project.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 4102	Nuisance (12/17/92)
Rule 4311	Flares (06/15/2006)
Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

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

III. Project Location

The proposed flare will be located at the PXP 19 Z Lease, NW Section 19, T30S, R22E within PXP's heavy production stationary source in the western Kern County fields.

The proposed location is not within 1,000 feet of a school.

A location map for the PXP 19 Z lease is included in **Attachment I**.

IV. Process Description

Project 1104732 authorized the installation of up to 49 TEOR wells (S-1372-404) with liquid and entrained gas from the wells piped to a gas/liquid separator and 2 new emulsion tanks (S-1372-405 and '-406). Collected vapors from the 2-phase separator and new tanks will be collected by a new vapor control system consisting of sulfur removal system(s), liquid knockout drum(s), heat exchanger (s), and compressor(s). The gas will be injected into one of two DOGGR-approved injection wells (one primary and one backup). The sulfur removal system is designed to process up to 1 MMscf/day gas with a H₂S content up to 25,000 ppmv.

Proposed Modifications

The flare will be used to incinerate TEOR and tank vapors when one, or more of the injection wells is not operating. The flare will operate 24 hr/day and no more than 45 days/yr. A facility plot plan and block flow diagram are included in **Attachment II**.

V. Equipment Listing

Post-Project Equipment Description:

S-1372-408-0: FLARE INDUSTRIES MODEL SF-VP-0616 (OR EQUIVALENT) 6.6
MMBTU/HR AIR ASSIST STANDBY FLARE WITH AUTOIGNITION PROPANE
PILOT

As per District policy 1035 Flexibility in Equipment Descriptions in ATCs, some flexibility in the final specifications of the equipment will be allowed stated in the following ATC conditions:

The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] N

The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] N

Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] N

No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] N

VI. Emission Control Technology Evaluation

Flares typically achieve greater than 99% destruction efficiency of VOCs. The proposed flare operates with an auto-ignition propane pilot and is air assist to prevent smoking.

VII. General Calculations

A. Assumptions

- Operational time: 24 hours per day, 45 days per year
- Maximum flared gas volume: 300 mscf/day (applicant proposed in 8-1-11 email)
- Flared gas higher heating value: 526 Btu/scf (Supplemental application form)
- Flare gas H₂S content: 1,250 ppmv (applicant email 8-1-11)
- Pilot Gas: PUC quality propane (Supplemental application form)
- Pilot gas flow rate: 32 scf/hr (Supplemental application form)
- Emissions from pilot gas combustion are assumed to be negligible
- Flared gas pressure is < 5 psig (Supplemental application form)

B. Emission Factors

Pollutant	Emission Factor (lb/MMBtu)	Source
NO _x	0.068	AP-42/FYI-83
SO _x *	0.4 lb/MMBtu	Sulfur mass balance (per applicant)
PM ₁₀	0.008	AP-42/FYI-83-BACT
CO	0.37	AP-42/FYI-83
VOC	0.063	AP-42/FYI-83

$$\frac{1250 \text{ scf } H_2S}{1 \text{ MM scf gas}} \times \frac{\text{MMscf gas}}{526 \text{ MMBtu}} \times \frac{\text{lb.mol}}{379.4 \text{ scf } H_2S} \times \frac{64 \text{ lb } SO_x}{\text{lb mol } H_2S} = 0.4 \frac{\text{lb}}{\text{MM Btu}}$$

C. Calculations

1. Pre-Project Potential to Emit (PE1)

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

2. Post Project Potential to Emit (PE2)

S-1372-408-0:

Flared gas heat input = 300 mscf/day x 0.526 MMBtu/mscf = 157.8 MMBtu/day
x day/24 hr (6.575 MMBtu/hr), x 45 = 7101 MMBtu/yr

Pollutant	Daily Post-Project Potential to Emit (PE2)			
	Emission Factors	Heat input	Hours per day	Daily PE2
NO_x	0.0680 (lb-NO _x /MMBtu)	x 6.575 (MMBtu/hr)	x 24 (hr/day)	= 10.7 (lb-NO _x /day)
SO_x	0.40000 (lb-SO _x /MMBtu)	x 6.575 (MMBtu/hr)	x 24 (hr/day)	= 63.1 (lb-SO _x /day)
PM₁₀	0.0080 (lb-PM ₁₀ /MMBtu)	x 6.575 (MMBtu/hr)	x 24 (hr/day)	= 1.3 (lb-PM ₁₀ /day)
CO	0.3700 (lb-CO/MMBtu)	x 6.575 (MMBtu/hr)	x 24 (hr/day)	= 58.4 (lb-CO/day)
VOC	0.0630 (lb-VOC/MMBtu)	x 6.575 (MMBtu/hr)	x 24 (hr/day)	= 9.9 (lb-VOC/day)

Pollutant	Annual Post-Project Potential to Emit (PE2)		
	Emission Factors	Annual Max Heat input	Annual PE2
NO_x	0.0680 (lb-NO _x /MMBtu)	x 7.101 (billion Btu/year)	= 483 (lb-NO _x /year)
SO_x	0.40000 (lb-SO _x /MMBtu)	x 7.101 (billion Btu/year)	= 2,840 (lb-SO _x /year)
PM₁₀	0.0080 (lb-PM ₁₀ /MMBtu)	x 7.101 (billion Btu/year)	= 57 (lb-PM ₁₀ /year)
CO	0.3700 (lb-CO/MMBtu)	x 7.101 (billion Btu/year)	= 2,627 (lb-CO/year)
VOC	0.0630 (lb-VOC/MMBtu)	x 7.101 (billion Btu/year)	= 447 (lb-VOC/year)

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

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

Pursuant to Section 4.9 of District Rule 2201, the Pre-project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

PXP stipulates that the facility is a major stationary source for all air pollutants; therefore, tabulation of the SSPE1 is not required for this project.

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

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

PXP stipulates that the facility is a major stationary source for all air pollutants; therefore, tabulation of the SSPE2 is not required for this project.

5. Major Source Determination

Pursuant to Section 3.23 of District Rule 2201, a Major Source is a stationary source with post-project emissions or a Post Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the following threshold values. However, Section 3.23.2 states, “for the purposes of determining major source status, the SSPE2 shall not include the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.”

Major Source Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
Pre-Project SSPE (SSPE1)	>20,000	>140,000	>140,000	>200,000	>20,000
Post Project SSPE (SSPE2)	>20,000	>140,000	>140,000	>200,000	>20,000
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	yes	yes	yes	yes	yes

6. Baseline Emissions (BE)

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

Pursuant to Section 3.7 of District Rule 2201, BE = Pre-project Potential to Emit 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 Section 3.22 of District Rule 2201.

S-1372-408:

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

7. SB 288 Major Modification

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

Since this facility is a major source for NO_x, SO_x, PM₁₀, and VOCs, the project's PE2s is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO _x	483	50,000	No
SO _x	2,840	80,000	No
PM ₁₀	57	30,000	No
VOC	447	50,000	No

8. Federal Major Modification

District Rule 2201, Section 3.17 states that Federal Major Modifications are the same as "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA. SB 288 Major Modifications are not Federal Major Modifications if they meet the criteria of the "Less-Than-Significant Emissions Increase" exclusion.

A Less-Than-Significant Emissions Increase exclusion is for an emissions increase for the project, or a Net Emissions Increase for the project (as defined in 40 CFR 51.165 (a)(2)(ii)(B) through (D), and (F)), that is not significant for a given regulated NSR pollutant, and therefore is not a Federal Major Modification for that pollutant.

- To determine the post-project projected actual emissions from existing units, the provisions of 40 CFR 51.165 (a)(1)(xxviii) shall be used.
- To determine the pre-project baseline actual emissions, the provisions of 40 CFR 51.165 (a)(1)(xxxv)(A) through (D) shall be used.
- If the project is determined not to be a Federal Major Modification pursuant to the provisions of 40 CFR 51.165 (a)(2)(ii)(B), but there is a reasonable possibility that the project may result in a significant emissions increase, the owner or operator shall comply with all of the provisions of 40 CFR 51.165 (a)(6) and (a)(7).
- Emissions increases calculated pursuant to this section are significant if they exceed the significance thresholds specified in the table below.

Pollutant	Threshold (lb/year)
VOC	0
NOx	0
PM10	30,000
SOx	80,000

The Net Emissions Increases (NEIs) for purposes of determination of a “Less-Than-Significant Emissions Increase” exclusion will be calculated below to determine if this project qualifies for such an exclusion.

Net Emission Increase for New Unit (NEI)

Per 40 CFR 51.165 (a)(2)(ii)(D) for new emissions unit in this project,

NEI = PE2 - BAE

BAE = 0 for the new emissions unit; therefore,

NEI = PE2

Unit S-1372-408 is a new unit, and baseline actual emissions are equal to zero, and therefore, pursuant to 40 CFR 51.165 (a)(2)(ii)(D), the Net Emissions Increases are equal to the post-project potential to emit.

NEI = PE2 = 483 lb/yr NOx and 447 lb/yr VOCs > 0 lb/yr

Therefore the project is a Federal Major Modification.

9. Quarterly Net Emissions Change (QNEC)

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

Quarterly NEC for Unit S-1372-408			
Pollutant	PE2 (lb/yr)	BE (lb/yr)	QNEC (lb/qtr)
NO _x	483	0	121
SO _x	2,840	0	710
PM ₁₀	57	0	14
CO	2,627	0	657
VOC	447	0	112

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

Rule 1020, Section 3.46 excludes air pollution abatement operation from the definition of “source operation”. Since the standby flare is designed to control the VOC and H₂S emissions from tank vapor control system S-1372-405, the flare is considered an air pollution abatement operation and is not an emissions unit. Therefore, BACT is not required for the flare.

B. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post Project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

As discussed above, this facility is a Major Source for NO_x, SO_x, PM₁₀, CO, and VOC emissions and will remain a Major Source for NO_x, SO_x, PM₁₀, CO, and VOC; therefore, any increases in NO_x, SO_x, PM₁₀, CO, and VOC emissions will be required to be offset.

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for NO_x, SO_x, PM₁₀, CO, and VOC emissions; therefore offset calculations will be required for this project. Per Sections 4.7.1 and 4.7.3, the quantity of offsets in pounds per year for NO_x 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

BE = Pre-project Potential to Emit 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)

The facility is proposing to install a new emissions unit; therefore Baseline Emissions are equal to zero. There are no increases in cargo carrier emissions; therefore offsets can be determined as follows:

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

BE = 0 (new emissions unit)

NOx:

PE2 = 483 lb NOx/yr

The DOR = 1.5 (Federal Major Modification), the amount of NOx ERCs that need to be withdrawn is:

$$\begin{aligned} \text{Offsets Required (lb/year)} &= 483 \times 1.5 \\ &= 725 \text{ lb-NOX/year} \end{aligned}$$

The quarterly ERC required is as follows:

DOR = 1.0

<u>Pollutant</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
NOx	121	121	121	121

DOR = 1.5

<u>Pollutant</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
NOx	182 (182)	182 (182)	182 (182)	182 (182)

* quantities in parentheses are reserved in PAS

The applicant has stated that the facility plans to use ERC certificates S-3227-2 to offset the increases in NOx emissions associated with this project. The ERC certificates has available quarterly NOx credits as follows:

<u>Certificate</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
ERC #S-3227-2	4812	4814	4815	4815

As seen above, the facility has proposed sufficient credits to fully offset the quarterly NOx emission increases associated with this project.

SOx:

PE2 = 2840 lb/yr

Assuming DOR = 1.5, the amount of SOx ERCs that need to be withdrawn is:

$$\begin{aligned} \text{Offsets Required (lb/year)} &= 2840 \times 1.5 \\ &= 4260 \text{ lb-SO}_x/\text{year} \end{aligned}$$

The quarterly ERC required is as follows:

DOR = 1.0

<u>Pollutant</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
SOx	710	710	710	710

DOR = 1.5

<u>Pollutant</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
SOx	1065	1065	1065	1065

The applicant has stated that the facility plans to use ERC certificates S-2800-5 (Kern Oil Refinery, DOR 1.5) and S-3165-5 (CUSA HOWSS S-1141, DOR 1.3) offset the increases in SOx emissions associated with this project. The ERC certificates* have available quarterly SOx credits as follows:

<u>Certificate</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
ERC #S-3165-5	779 (779)*	779 (779)*	781 (781)*	781 (781)*
<u>Certificate</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
ERC #S-2800-5	840 (166)	516 (166)	192 (164)	192 (164)

$$\begin{aligned} \text{S-2800-5 reserved quantities: } &779/1.3 + X/1.5 = 710, X = 166 \text{ (qtr 1)} \\ &779/1.3 + X/1.5 = 710, X = 166 \text{ (qtr 2)} \\ &781/1.3 + X/1.5 = 710, X = 164 \text{ (qtr 3)} \\ &781/1.3 + X/1.5 = 710, X = 164 \text{ (qtr 3)} \end{aligned}$$

* quantities in parentheses are reserved in PAS

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

PM10:

PE2 = 57 lb/yr

Assuming DOR = 1.5, the amount of PM10 ERCs that need to be withdrawn is:

$$\text{Offsets Required (lb/year)} = 57 \times 1.5$$

= 86 lb-NOX/year

The quarterly ERC required is as follows:

DOR = 1.0

<u>Pollutant</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
PM10	14	14	14	14

DOR = 1.5

<u>Pollutant</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
PM10	21 (21)	21 (21)	21 (21)	21 (21)

The applicant has stated that the facility plans to use ERC certificate C-950-4 to offset the increases in PM10 emissions associated with this project which has the following available credits:

<u>Pollutant</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
PM10	127* (42)	0**	396 (21)	350 (21)

* quantities in parentheses are reserved in PAS

**Rule 2201 Section 4.13.7 states that AER for PM that occurred 1st and 4th qtrs (October through March), inclusive, may be used to offset increases in PM during any period of the year.

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

VOC:

447 lb VOC/yr

Assuming DOR = 1.5 (Federal Major Modification), the amount of VOC ERCs that need to be withdrawn is:

$$\begin{aligned} \text{Offsets Required (lb/year)} &= 447 \times 1.5 \\ &= 671 \end{aligned}$$

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

DOR = 1.0

<u>Pollutant</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
VOC	112	112	112	112

DOR = 1.5

<u>Pollutant</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
VOC	168	168	168	168

* quantities in parentheses are reserved in PAS

The applicant has stated that the facility plans to use ERC certificate C-1029-1 to offset the increases in VOC emissions associated with this project. The above certificate* have available quarterly VOC credits as follows:

<u>Certificate</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
ERC #C-1029-1	2467* (168)	2439 (168)	2410 (168)	2411 (168)

As seen above, the facility has sufficient credits to fully offset the quarterly NO_x, SO_x, PM₁₀ and VOC emissions increases associated with this project.

CO:

PE2 = 2,627 lb/yr

Notwithstanding the above, Section 4.6.1 of Rule 2201 states that emissions offsets are not required for increases in carbon monoxide in attainment areas provided the applicant demonstrates to the satisfaction of the APCO that the Ambient Air Quality Standards are not violated in the areas to be affected, and such emissions will be consistent with Reasonable Further Progress, and will not cause or contribute to a violation of Ambient Air Quality Standards. The District performed an Ambient Air Quality Analysis (discussed later) and determined that this project will not result in or contribute to a violation of an Ambient Air Quality Standard for CO (see **Attachment VI**). Therefore, CO offsets are not required for this project.

Proposed Rule 2201 (offset) Conditions:

NO_x, PM₁₀, and VOC

Prior to operating under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: NO_x: 182 lb/quarter; PM₁₀: 21 lb/quarter, and VOC: 167 lb/quarter. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Y

ERC Certificate Numbers S-3227-2, C-950-4, and C-1029-1 (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] Y

SO_x

Prior to operating under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: SO_x: 28 lb/quarter. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/2011). [District Rule 2201] Y

ERC Certificate Numbers S-2800-5 and S-3165-5 (or certificates split from these certificates) 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] Y

C. Public Notification

1. Applicability

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed, and/or
- d. Any project with an SSPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications

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

As demonstrated in VII.C.7, this project is a Federal Major Modification; therefore, public noticing for Federal Major Modification purposes.

b. PE > 100 lb/day

As seen in Section VII.C.2 above, this project does not include new emissions units which have daily emissions greater than 100 lb/day for any pollutant; therefore, public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

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

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

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. $SSIPE = SSPE2 - SSPE1$. The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and 4.10, respectively. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	>20,000 lb/year	>20,000 lb/year	483	20,000 lb/year	No
SO _x	>54,750 lb/year	>54,750 lb/year	2,840	20,000 lb/year	No
PM ₁₀	>29,200 lb/year	>29,200 lb/year	57	20,000 lb/year	No
CO	>200,000 lb/year	>200,000 lb/year	2,627	20,000 lb/year	No
VOC	>20,000 lb/year	>20,000 lb/year	447	20,000 lb/year	No

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

2. Public Notice Action

As discussed above, this project will result in a Federal Major Modification. Therefore, public notice will be required for this project.

D. Daily Emission Limits (DELs)

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

Proposed Rule 2201 (DEL) Conditions:

S-1372-408:

Maximum amount of gas combusted shall not exceed 157.8 MMBtu/day nor 7101 MMBtu/yr. [District Rule 2201] Y

H₂S content of flared gas shall not exceed 1250 ppmv. [District Rule 2201] Y

Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NO_x (as NO₂): 0.068 lb/MMBtu; PM₁₀: 0.008 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [District Rule 2201] N

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201. However at startup under the proposed ATC the flare will be subject to the following requirements:

To show compliance with sulfur emission limits, the gas being flared shall be tested weekly for sulfur content. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for the flared gas, then the compliance testing frequency shall be semi-annually. If the semi-annual sulfur content test fails to show compliance, weekly testing shall resume. [District Rule 2201] Y

2. Monitoring

The following monitoring conditions will be included on the ATC:

Using a trained observer as defined in EPA Method 22, operator shall check for visible emissions for a period of 15 minutes each time the flare is brought from standby to active service and at least once every two weeks thereafter as long as the flare is in active service. If visible emissions are detected at any time during this period, the operator shall make the necessary adjustments to eliminate the visible emissions. If the observed visible emissions cannot be eliminated within 24 hours, the operator shall demonstrate compliance with the visible emissions limit of this permit using EPA Method 22 and an observation period of two hours. A record containing the results of these observations shall be maintained, which also includes company name, process unit, observer's name and affiliation, date, estimated wind speed and direction, sky condition, and the observer's location relative to the source and sun. [District Rule 2520, 9.4.2] Y

The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)] Y

Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201] Y

3. Recordkeeping

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

Permittee shall maintain accurate records of flared gas higher heating value, daily and annual quantities of produced gas, pilot gas, and sweep gas combusted in the flare, and flared gas concentration of H2S. [District Rules 2201 and Rules 2520, 9.3.2] Y

{3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Y

4. Reporting

There are no reporting requirements for Rule 2201.

F. Ambient Air Quality Analysis

Section 4.14.1 of this Rule requires that an ambient air quality analysis (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 Technical Services Division of the SJVAPCD conducted the required analysis. Refer to **Attachment VI** of this document for the AAQA summary sheet.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

Diesel ICE	1 Hour	3 Hours	8 Hours.	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO _x	Pass	X	X	X	Pass
SO _x	Pass	Pass	X	Pass	Pass
PM ₁₀	X	X	X	Pass	Pass ²
PM _{2.5}	X	X	X	Pass	Pass ²

*Results were taken from the attached PSD spreadsheet.

²The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

As shown, the calculated results indicate that this project is not expected to cause or make worse a violation of an air quality standard.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a 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 above, the project is a Federal Major Modification, therefore this requirement is applicable. Included in **Attachment IV** is PXP's Statewide Compliance Certification document.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to reauthorize a tank. Since the project is at the current facility 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.

District Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. Section 3.29 defines a significant permit modification as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

The project is Federal Major Modification and therefore is also a Title V Significant Modification. As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Included in **Attachment V** is PXP's Title V Compliance Certification form. Continued compliance with this rule is expected.

District Rule 4102 Nuisance

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

California Health & Safety Code 41700 (Health Risk Assessment)

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

California Health & Safety Code 41700 (Health Risk Assessment)

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (**Attachment VI**), the total facility prioritization score including this project was greater than one. However the cancer risk is less than 1 per million and therefore the project is approvable without TBACT.

District Rule 4201 Particulate Matter Concentration

This rule requires that the release or discharge of dust, fumes, or total suspended particulate matter emissions into the atmosphere from any single source operation not exceed 0.1 grain per cubic foot of gas at dry standard conditions.

Based on the observed past operation of this flare and the requirement that it operate with visible emissions not exceeding 5% in opacity, compliance with this rule is expected.

District Rule 4311 Flares

Section 5.1 states that flares that are permitted to operate only during an emergency are not subject to the requirements of Sections 5.6 and 5.7. Section 5.6 states that open flares with flare gas pressure less than 5 psig shall comply with 40 CFR 60.18. Section 5.7 lists requirement for ground level enclosed flares. The flare is not an emergency flare and operates with a flare gas pressure less than 5 psig and so is subject to Section 5.6. Note Rule 4311 defines enclosed flares as follows:

“a flare composed of multiple gas burners that are grouped in an enclosure, and are staged to operate at a wide range of flow rates”

The subject flare is not enclosed. Section 5.7 is not applicable.

Section 5.2 The flame shall be present at all times when combustible gases are vented through the flare. The following condition is included on the ATC to ensure compliance:

Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Y

Section 5.3 The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. The flare is equipped with a continuous propane pilot and not an automatic ignition system. The following condition is included on the ATC:

The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare. The pilot need not be present when the flare is isolated for required flare maintenance. [40 CFR 60.18(c)(2), District Rule 4311, 5.3] Y

Section 5.4: Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an alternative equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. The following condition is included on the ATC:

Flare shall be equipped with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present. The flame detection device shall be kept operational at all times except during flare maintenance and unforeseen or necessary planned power outages. [District Rule 4311, 5.4] Y

Section 5.5 Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. This section is not applicable as the flare has a continuous pilot.

Section 5.6 Open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. The requirements of this section shall not apply to Coanda effect flares.

The flare is not an emergency flare and operates with a flare gas pressure less than 5 psig and therefore is subject to Section 5.6.

Operational Standards Subpart CFR 40 Subpart 60.18

Per 40 CFR 60.112b(a)(3)(ii) and 40 CFR 60.113b(d), the flare will be required to meet the standards contained in 40 CFR 60.18, as this flare is air assisted and the flare gas pressure may be less than 5 psig.

1. 60.18 (c)(1): Flare shall be designed for and operated with no visible emissions as determined by EPA Method 22, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Visible emissions testing will be required by ATC condition.
2. 60.18 (c)(2): Flare shall be operated with a flame present at all times. Presence of a flame shall be monitored using a thermocouple or equivalent device to detect the presence of a flame. The flare is equipped with a pilot flame monitoring device.

The following condition included on the ATC requires a continuous pilot flame and smokeless combustion:

The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare. The pilot need not be present when the flare is isolated for required flare maintenance. [40 CFR 60.18(c)(2), District Rule 4311, 5.3] Y

{649} Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)] Y

{650} Demonstration of compliance with the visible emissions limit of this permit shall be conducted at least annually, using EPA Method 22. The observation period shall be 2 hours. [40 CFR 60.18(f)(1)] Y

1. 60.18 (c)(3)(ii): Net heating value of the gas being combusted shall be 300 Btu/scf or greater for air-assisted flares.
2. 60.18 (c)(5): Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max} , which shall be determined as follows:

$$V_{max} = 8.706 + 0.7084 (HT)$$

Where:

$$V_{max} = \text{Maximum permitted velocity (m/s)}$$

$$HT = \text{Net heating value (MJ/scm)}$$

The results of the laboratory gas analysis submitted with the application show that the heating value 526 Btu/scf, which is equivalent to:

$$526 \text{ Btu/ft}^3 \times 1055.06 \text{ J/Btu} \times \text{MJ}/10^6 \text{ J} \times (3.281 \text{ ft/M})^3 = 19.6 \text{ MJ/M}^3$$

The heating value is used in the above equation to calculate the maximum exit velocity as follows:

$$\begin{aligned} V_{\max} &= 8.706 + 0.7084 (19.6) \\ &= 22.6 \text{ m/s or } 74.1 \text{ ft/s} \end{aligned}$$

The proposed flare has a tip opening cross sectional area of 0.183 ft² (Supplemental Application Form).

Therefore the velocity is

300,000 ft³/day \times 1/0.183 ft² \times day/24 hr \times hr/3600 sec = 19.0 ft/sec, which is less than the maximum allowable velocity calculated above.

The following conditions is included on the ATC:

{656} Air-assisted flares shall be operated with an exit velocity less than V_{max}, as determined by the equation specified in paragraph 40 CFR 60.18 (f)(6). [40 CFR 60.18 (c)(5)] Y

{660} The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] Y

Flares shall only be used with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] Y

The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)] Y

1. 60.18 (e): This section requires that the flare be operational when emissions may be vented to the flare. The presence of a continuous pilot flame will ensure that the flare is operational.

The following condition is included on the ATC:

Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Y

Record-keeping Requirements Subparts 60.115b(d)(2), 60.115b(d)(3):

Applicant has proposed the following record-keeping provisions:

1. 60.115b(d)(2): Records shall be maintained of all periods when the flare pilot flame is absent.

2. 60.115b(d)(3): Semi-annual reports of all periods without the presence of a flare pilot flame shall be furnished to the Administrator.

The ATC includes the following conditions:

Semi-annual reports of all periods without the presence of a flare pilot flame shall be furnished to the District Compliance Division and EPA. [District Rule 4001 40CFR 60.115b(d)(3)] N

Records shall be maintained of all periods when the flare pilot flame is absent. [District Rule 40CFR 60.115(d)(2)] N

Section 5.8 Flare Minimization Plan

Effective on and after July 1, 2011, flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5, and all commitments listed in that plan have been met. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere.

Effective on and after July 1, 2011, flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5 of Rule 4311, and all commitments listed in that plan have been met. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 of Rule 4311 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311]

Section 5.9 Petroleum Refinery SO₂ Performance Targets – not applicable – facility is not a petroleum refinery

Section 5.10 Effective on and after July 1, 2011, the operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records pursuant to Section 6.1.7. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 shall not be required to monitor vent gas flow to the flare.

Effective on and after July 1, 2011, the operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records pursuant to Section 6.1.7 of Rule 4311. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 of Rule 4311 shall not be required to monitor vent gas flow to the flare. [District Rule 4311]

6.0 Administrative Requirements

Section 6.1 Recordkeeping

The following records shall be maintained, retained on-site for a minimum of five years, and made available to the APCO, ARB, and EPA upon request:

6.1.1 Copy of the compliance determination conducted pursuant to Section 6.4.1 (40 CFR 60.18).

Copies of compliance determination pursuant to 40 CFR 60.18 shall be made readily available to the APCO, ARB, and EPA upon request for a minimum of 5 years. [40 CFR 60.18, District Rule 4311, Section 6.1]

6.1.2 Copy of the source testing result conducted pursuant to Section 6.4.2 (for ground level enclosed flares – not applicable).

6.1.3 For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation – not applicable.

6.1.4 Operators claiming an exemption pursuant to Section 4.3 shall record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section - not applicable

6.1.5 Effective on and after July 1, 2011, a copy of the approved flare minimization plan pursuant to Section 6.5. The following ATC condition is included:

On and after July 1, 2011, permittee shall keep a copy of flare minimization plan onsite for District inspection upon request. [40 CFR 60.18, Rule 4311]

6.1.6 Effective on and after July 1, 2012, where applicable, a copy of annual reports submitted to the APCO pursuant to Section 6.2.

Copies of compliance determination pursuant to 40 CFR 60.18 shall be made readily available to the APCO, ARB, and EPA upon request for a minimum of 5 years. [40 CFR 60.18, District Rule 4311, Section 6.1]

Section 6.1.7 Effective on and after July 1, 2011, where applicable, monitoring data collected pursuant to Sections 5.10 (flare minimization vent gas flow rate), 6.6 (Petroleum Refinery flare – not applicable), 6.7 (Petroleum Refinery flare – not applicable), 6.8 (Petroleum Refinery flare – not applicable), 6.9 (Petroleum Refinery flare – not applicable), and 6.10 (Petroleum Refinery flare – not applicable).

Section 6.2 includes record-keeping requirements for flares subject to Section 5.6, ground level flares, emergency flares, and Section 4.3. The subject flare is subject to Section 5.6. The requirement is stated in the following condition:

On and after July 1, 2011, permittee shall keep a copy of flare minimization plan onsite for District inspection upon request. [40 CFR 60.18, Rule 4311]

Section 6.4 Compliance Determination

6.4.1 Upon request, the operator of flares that are subject to Section 5.6 shall make available, to the APCO, the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18, (c)(3) through (c)(5).

6.4.2 The operator of ground-level enclosed flares shall conduct source testing at least once every 12 months to demonstrate compliance with Section 5.7. The operator shall submit a copy of the testing protocol to the APCO at least 30 days in advance of the scheduled testing. The operator shall submit the source test results not later than 45 days after completion of the source testing. – not applicable

Section 6.5 Flare Minimization Plan

6.5.1 By July 1, 2010, the operator of a petroleum refinery flare or any flare that has a flaring capacity of greater than or equal to 5.0 MMBtu per hour shall submit a flare minimization plan (FMP) to the APCO for approval. The project flare has a rating of 135 MMBtu/day (5.62 MMBtu/hr) and therefore is subject to this section. The FMP shall include, but not be limited to:

6.5.1.1 A description and technical specifications for each flare and associated knock-out pots, surge drums, water seals and flare gas recovery systems.

6.5.1.2 Detailed process flow diagrams of all upstream equipment and process units venting to each flare, identifying the type and location of all control equipment.

6.5.1.3 A description of equipment, processes, or procedures the operator plans to install or implement to eliminate or minimize flaring and planned date of installation or implementation.

6.5.1.4 An evaluation of prevention measures to reduce flaring that has occurred or may be expected to occur during planned major maintenance activities, including startup and shutdown.

6.5.1.5 An evaluation of preventative measures to reduce flaring that may be expected to occur due to issues of gas quantity and quality. The evaluation shall include an audit of the vent gas recovery capacity of each flare system, the storage capacity available for excess vent gases, and the scrubbing capacity available for vent gases including any limitations associated with scrubbing vent gases for use as a fuel; and shall determine the feasibility of reducing flaring through the recovery, treatment and use of the gas or other means.

6.5.1.6 An evaluation of preventative measures to reduce flaring caused by the recurrent failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. The evaluation shall determine the adequacy of existing maintenance schedules and protocols for such equipment. For purposes of this section, a failure is recurrent if it occurs more than twice during any five year period as a result of the same cause as identified in accordance with Section 6.2.2.

6.5.1.7 Any other information requested by the APCO as necessary for determination of compliance with applicable provisions of this rule.

6.5.2 Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan.

6.5.3 An updated FMP shall be submitted by the operator pursuant to Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated FMP submittals are only required if:

6.5.3.1 The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and

6.5.3.2 The ATC is deemed complete after June 18, 2009, and

6.5.3.3 The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions.

6.5.4 When submitting the initial FMP, or updated FMP, the operator shall designate as confidential any information claimed to be exempt from public disclosure under the California Public Records Act, Government Code Section 6250 et seq. If a document is submitted that contains information designated confidential, the operator shall provide a justification for this designation and shall submit a separate copy of the document with the information designated confidential redacted.

The following condition is included on the ATC:

By July 1, 2010 permittee shall submit a flare minimization plan (FMP) to the APCO for approval consistent with the requirements of Section 5.5 of Rule 4311. [Rule 4311]

Sections 6.6, 6.7, 6.8, and 6.9 are applicable to flares with an hourly heat input exceeding 50 MMBtu/hr and therefore is not applicable.

Section 6.10 is not applicable as it addresses petroleum refinery flares.

Section 7.0 Compliance Schedule

Operators of flares, that are exempt under Section 4.0 and that lose exemption status, shall not operate flares until in full compliance with all applicable requirements of this rule effective on the date the exemption status is lost – not applicable.

Compliance with the rule is expected.

Rule 4801 Sulfur Compounds

Rule 4801 requires that a person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the

point of discharge: two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO₂), on a dry basis averaged over 15 consecutive minutes.

Emission calculations were calculated using a fuel with a 1250 maximum H₂S concentration which corresponds to 0.4 lb SO_x/MMBtu.

$$\frac{0.4 \text{ lb} - \text{SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}} \times \frac{520^\circ\text{R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 277 \frac{\text{parts}}{\text{million}}$$

$$\text{Sulfur Concentration} = 277 \frac{\text{parts}}{\text{million}} < 2,000 \text{ ppmv (or 0.2\%)}$$

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

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

The District performed an Engineering Evaluation (this document) for the proposed project and determined that the potential to emit of this unit is less than two pounds in any one day for each criteria pollutant. Thus, Best Available Control Technology (BACT) requirements do not apply. Furthermore, the District conducted a Risk Management Review and concludes that potential health impacts are less than significant.

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

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue Authority to Construct S-1372-408-0 subject to the permit conditions on the attached draft Authority to Construct in **Attachment VII**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1372-408	3020-02G	6.6 MMBtu/hr	\$815.00

Attachments

- I: Location Map
- II: Facility Plot Plan and Block Flow Diagram
- III: Emissions Profiles
- IV: Statewide Compliance Certification
- V: Title V Compliance Certification Form
- VI: HRA/AAQA Summary
- VII: Draft ATC

ATTACHMENT I
Location Map

ATTACHMENT II
Facility Plot Plan and Block Flow Diagram

ATTACHMENT III Emissions Profiles

ATTACHMENT IV
Statewide Compliance Certification

ATTACHMENT V
Compliance Certification Form

**ATTACHMENT VI
HRA/AAQA**

ATTACHMENT VII
Draft ATC

ATTACHMENT I
Location Map

LOCATION MAP OF PXP 19Z LEASE

119°40.000' W

119°39.000' W

119°38.000' W

WGS84 119°37.000' W



35°20.000' N

35°20.000' N

35°19.000' N

35°19.000' N

35°18.000' N

35°18.000' N

35°17.000' N

35°17.000' N

119°40.000' W

119°39.000' W

119°38.000' W

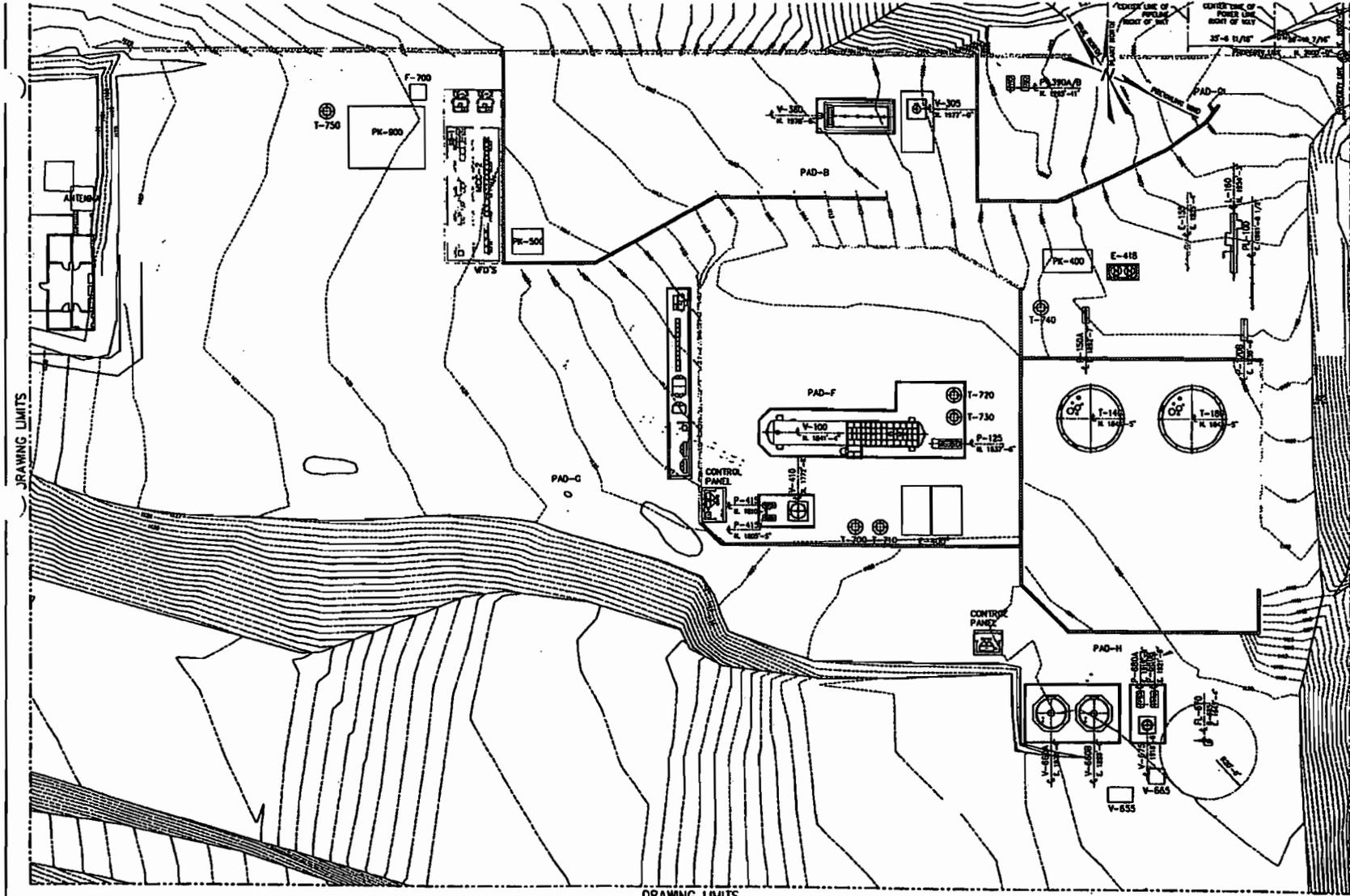
WGS84 119°37.000' W

TN/MN
14°

0 1000 FEET 500 2000 METERS

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ATTACHMENT II
Facility Plot Plan and Block Flow Diagram



B-650	FLARE AIR BLOWER
E-155	DRAINAGE IN TO GAS COOLERS
E-600	LP GAS COOLER
E-618A/B	TWR GAS COOLERS
F-700	FUEL GAS FILTER
FL-670	BURNERLESS FLARE
L-100	LACT UNIT
L-125	V-100 CHARGE DRAIN PUMP
L-150	LACT CHARGE PUMPS
P-150	LACT SHIPPING PUMPS
P-300A/B	STEAM GENERATOR BLOWDOWN VESSEL PUMP
P-615A/B	LP GAS EXHAUSTER CONDENSATE PUMPS
P-680A/B	FLARE ED DRUM PUMPS
PL-100	PRO LAMINATOR
PK-400	TWR PACKAGE
PK-500	AIR COMPRESSOR PACKAGE
PK-600	WASTE OIL RECLAIM COMPRESSOR
PK-100	SOFT WATER PUMP/PAK PG STRAP
T-140	DRAINAGE TANK #1
T-180	DRAINAGE TANK #2
T-700	SCALE INJECTION TANK
T-710	CHEMICAL INJECTION TANK
T-720	SCALE INJECTION TANK
T-730	CORROSION INHIBITOR TANK
T-740	CHEMICAL INJECTION TANK
T-750	CHEMICAL INJECTION TANK
V-100	DISTILLATE & PHASE SEPARATOR
V-305	STEAM QUALITY BOOSTER VESSEL
V-380	STEAM GENERATOR BLOWDOWN VESSEL
V-410	LP GAS EXHAUSTER
V-430	PROPANE VESSEL
V-600A/B	BAFFLE REMOVAL VESSELS
V-615	FUEL PUMP BAFFLE REMOVAL VESSEL
V-670	FLARE ED DRUM

LEGEND:

- BENCHMARK
- RETAINING WALL
- PIPE LINE RIGHT OF WAY
- POWER LINE RIGHT OF WAY

NOTES:

1. BENCHMARK COORDINATES EQUAL
 N. 2007'-0", E. 2007'-0", ELEV. 1086'-0"
 REFERENCE CONTROL POINT COORDINATES EQUAL
 N. 2,363,382.30, E. 4,670,125.50, ELEV. 0000

Scale: 1"=20'-0"

3798-05P	192Z Main Facility
3798-05P	REFERENCE DRAWINGS

PROCESSES UNLIMITED
 International, Inc.
 DCN: 6352K4G0501P

1	1/24/70	ISSUED FOR PERMITTED CAPITAL PROJECT	DR	201	21
2	10/17/70	ISSUED FOR PIA	SPN	201	21
3	1/27/71	ISSUED FOR CONSTRUCTION	MTA	201	
4	1/27/71	REVISED PUMP LOCATIONS AND RETAINING WALLS	MTA	201	
5	1/27/71	REVISED EQUIPMENT AND RETAINING WALLS	MTA	201	
6	11/27/71	ISSUED FOR PIA REVIEW	MTA	201	
7	11/27/71	ISSUED FOR EIGHT APPROVAL	MTA	201	
8	01/07/72	REVISED	DR	201	21

PXP

DRN	DR	0/15/70

PLOT PLAN
 192Z DEVELOPMENT PROJECT
 192Z MAIN FACILITY
 MCKITTRICK, KERN COUNTY, CA

Scale: 1"=20'-0" 3798-K4G-05P 1 6

3798-05P.dwg 02/07/2007 13:37 3798-K4G-05P.dwg 02/07/2007 13:37

**ATTACHMENT III
Emissions Profiles**

Permit #: S-1372-408-0	Last Updated
Facility: PLAINS EXPLORATION &	08/20/2011 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	483.0	2840.0	57.0	2627.0	447.0
Daily Emis. Limit (lb/Day)	10.7	63.1	1.3	58.4	9.9
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	120.0	710.0	14.0	656.0	111.0
Q2:	121.0	710.0	14.0	657.0	112.0
Q3:	121.0	710.0	14.0	657.0	112.0
Q4:	121.0	710.0	15.0	657.0	112.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio	1.5	1.5	1.5		1.5
Quarterly Offset Amounts (lb/Qtr)					
Q1:	81.0	1065.0	21.0		168.0
Q2:	81.0	1065.0	21.0		168.0
Q3:	81.0	1065.0	21.0		168.0
Q4:	81.0	1065.0	21.0		168.0

ATTACHMENT IV
Statewide Compliance Certification

PXP

Plains Exploration & Production Company

September 1, 2011

San Joaquin Valley
Air Pollution Control District
34946 Flyover Court
Bakersfield, CA 93308
Attention: Mr. Richard Edgehill

**RULE 2201 COMPLIANCE STATEMENT
ATC S-1372-408 FEDERAL MAJOR MODIFICATION
PROJECT 1111509**

Mr. Edgehill:

In accordance with Rule 2201, Section 4.15 "Additional Requirements for new Major Sources and Federal Major Modifications", PXP is providing this compliance statement regarding its proposed ATC for 19Z Standby Flare #S-1372-408 (APCD project 111509).

All major stationary sources in California owned and operated by PXP, or by any entity controlling, controlled by, or under common control with PXP, and which are subject to emission limitations are in compliance or on a schedule for compliance with all applicable emission limitations and standards. These sources include one or more of the following oil and gas production facilities.

1. Arroyo Grande Field
2. Inglewood Field
3. Lompoc Point Pedernales Title V Stationary Source
4. Point Arguello Stationary Source

Based on information and belief formed after reasonable inquiry, the statements and information in this letter are true, accurate, and complete. Should you have any questions concerning this matter, please contact Kenneth Bork at (661) 395-5458.

Sincerely,



Steve Rusch
Vice President of EHS and Government Affairs

Plains Exploration & Production Company

1200 Discovery Drive, Suite 500 ■ Bakersfield, CA 93309 ■ 661-322-7600 ■ Fax: 661-395-5298

ATTACHMENT V
Compliance Certification Form

RECEIVED
APR 28 2011
SJVAPCD
Southern Region

San Joaquin Valley Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE AMENDMENT
 MINOR PERMIT MODIFICATION

COMPANY NAME: Plains Exploration & Production Company	FACILITY ID: S - 1372
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Plains Exploration & Production Company	
3. Agent to the Owner: Steven P. Rusch	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:



Signature of Responsible Official

3.8.11

Date

Steven P. Rusch

Name of Responsible Official (please print)

Vice President-EH&S & Governmental Affairs

Title of Responsible Official (please print)

**ATTACHMENT VI
HRA/AAQA**

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Richard Edgehill, AQE – Permit Services
 From: Esteban Gutierrez, AQS – Technical Services
 Date: September 8, 2011
 Facility Name: Plaines Exploration & Production
 Location: NE Section 8, Township 30S, Range 22E
 Application #(s): S-1372-408-0
 Project #: S-1111509

A. RMR SUMMARY

RMR Summary			
Categories	Flare (Unit 408-0)	Project Totals	Facility Totals
Prioritization Score	0.00	>1.0	>1.0
Acute Hazard Index	0.00	0.00	0.08
Chronic Hazard Index	0.00	0.00	0.03
Maximum Individual Cancer Risk (10^{-6})	0.00	0.00	0.98
T-BACT Required?	No		
Special Permit Conditions?	No		

Proposed Permit Conditions

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

Unit # 408-0

No special conditions are required.

B. RMR REPORT

I. Project Description

Technical Services received a request on August 10, 2011, to perform an Ambient Air Quality Analysis and a Risk Management Review for the installation of a 6.5 MMBtu waste gas standby flare.

III. Conclusion

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

To ensure that human health risks will not exceed District allowable levels; the permit conditions listed on page 1 of this report must be included for this proposed unit.

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

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

IV. Attachments

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

ATTACHMENT VII
Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1372-408-0

LEGAL OWNER OR OPERATOR: PLAINS EXPLORATION & PRODUCTION COMPANY

MAILING ADDRESS: ATTN: KENNETH BORK
1200 DISCOVERY DRIVE, SUITE 500
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: NE19 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

FLARE INDUSTRIES MODEL SF-VP-0616 (OR EQUIVALENT) 6.6 MMBTU/HR AIR ASSIST STANDBY FLARE WITH AUTOIGNITION PROPANE PILOT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. The permittee shall obtain written District approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of the equivalent equipment shall be made only after the District's determination that the submitted design and performance of the proposed alternate equipment is equivalent to the specifically authorized equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The permittee's request for approval of equivalent equipment shall include the make, model, manufacturer's maximum rating, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Alternate equipment shall be of the same class and category of source as the equipment authorized by the Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services

S-1372-408-0: Sep 29 2011 10:22AM - EDGEHILR : Joint Inspection Required with EDGEHILR

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

6. No emission factor and no emission shall be greater for the alternate equipment than for the proposed equipment. No changes in the hours of operation, operating rate, throughput, or firing rate may be authorized for any alternate equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Assist air blower shall be capable of providing at least 20% of stoichiometric combustion air requirement. [District Rule 2080] Federally Enforceable Through Title V Permit
8. The flare shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
9. Flare air-assist blower shall be maintained and operated for smokeless combustion, i.e. no visible emissions in excess of 5% opacity or 1/4 Ringelmann except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [District Rules 2201, 4001, and 4311] Federally Enforceable Through Title V Permit
10. LPG shall be used as pilot fuel. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Flare shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Federally Enforceable Through Title V Permit
12. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
13. Flare shall be equipped with recording, volumetric flow meters that shall be used to individually monitor and record the volumes of produced gas and pilot gas combusted in this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare. The pilot need not be present when the flare is isolated for required flare maintenance. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
15. Flare shall be equipped with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present. The flame detection device shall be kept operational at all times except during flare maintenance and unforeseen or necessary planned power outages. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
16. The H₂S content of gas combusted in the flare shall not exceed 1250 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Maximum amount of gas combusted shall not exceed 157.8 MMBtu/day nor 7101 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Emissions from the flare shall not exceed any of the following limits (based on total gas combusted): NO_x (as NO₂): 0.068 lb/MMBtu; PM₁₀: 0.008 lb/MMBtu; CO: 0.37 lb/MMBtu; or VOC: 0.063 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201] Federally Enforceable Through Title V Permit
20. {649} Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)] Federally Enforceable Through Title V Permit
21. Using a trained observer as defined in EPA Method 22, operator shall check for visible emissions for a period of 15 minutes each time the flare is brought from standby to active service and at least once every two weeks thereafter as long as the flare is in active service. If visible emissions are detected at any time during this period, the operator shall make the necessary adjustments to the eliminate the visible emissions. If the observed visible emissions cannot be eliminated within 24 hours, the operator shall demonstrate compliance with the visible emissions limit of this permit using EPA Method 22 and an observation period of two hours. A record containing the results of these observations shall be maintained, which also includes company name, process unit, observer's name and affiliation, date, estimated wind speed and direction, sky condition, and the observer's location relative to the source and sun. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

22. Flares shall only be used with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit
23. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)] Federally Enforceable Through Title V Permit
24. {656} Air-assisted flares shall be operated with an exit velocity less than V_{max} , as determined by the equation specified in paragraph 40 CFR 60.18 (f)(6). [40 CFR 60.18 (c)(5)] Federally Enforceable Through Title V Permit
25. {660} The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit
26. Permittee shall submit and have approved by the APCO a flare minimization plan prior to operating the flare authorized by this permit.. [District Rule 4311] Federally Enforceable Through Title V Permit
27. Flaring shall be consistent with the operator's approved flare minimization plan (FMP), pursuant to Section 6.5 of Rule 4311, and all commitments listed in that plan have been met. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 of Rule 4311 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311] Federally Enforceable Through Title V Permit
28. The operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records pursuant to Section 6.1.7 of Rule 4311. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 of Rule 4311 shall not be required to monitor vent gas flow to the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
29. Permittee shall keep a copy of flare minimization plan on site for District inspection upon request. [40 CFR 60.18, Rule 4311] Federally Enforceable Through Title V Permit
30. To show compliance with sulfur emission limits (ppmv as H₂S), the gas being flared shall be tested weekly for sulfur content. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for the flared gas, then the compliance testing frequency shall be semi-annually. If the semi-annual sulfur content test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
31. The sulfur content of the gas being flared shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
32. Net heating value of the gas being combusted by flare shall be 300 Btu/scf or greater. [District Rule 4001 and 4311] Federally Enforceable Through Title V Permit
33. Semi-annual reports of all periods without the presence of a flare pilot flame shall be furnished to the District Compliance Division and EPA. [District Rule 4001 40CFR 60.115b(d)(3)] Federally Enforceable Through Title V Permit
34. Upon request operator shall make available to the APCO the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18. [District Rule 4311, 6.1] Federally Enforceable Through Title V Permit
35. Copies of compliance determination pursuant to 40 CFR 60.18 shall be made readily available to the APCO, ARB, and EPA upon request for a minimum of 5 years. [District Rule 1070 and 4311] Federally Enforceable Through Title V Permit
36. Records shall be maintained of all periods when the flare pilot flame is absent. [District Rule 40CFR 60.115(d)(2)] Federally Enforceable Through Title V Permit
37. Permittee shall maintain accurate records of flared gas higher heating value, daily and annual quantities of produced gas, pilot gas, and sweep gas combusted in the flare, and flared gas concentration of H₂S. [District Rules 2201 and Rules 2520, 9.3.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

38. {520} The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
39. Prior to operating under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: NOx: 182 lb/quarter; PM10: 21 lb/quarter, and VOC: 167 lb/quarter. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
40. ERC Certificate Numbers S-3227-2, C-950-4, and C-1029-1 (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] Federally Enforceable Through Title V Permit
41. Prior to operating under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: SOx: 710 lb/quarter. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/2011). [District Rule 2201] Federally Enforceable Through Title V Permit
42. ERC Certificate Numbers S-2800-5 and S-3165-5 (or certificates split from these certificates) 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] Federally Enforceable Through Title V Permit

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