



MAY 04 2015

Mr. Rolando Trevino
Pacific Gas & Electric Company
P O Box 7640
San Francisco, CA 94120

**Re: Proposed Authority to Construct/Certificate of Conformity (Minor Mod)
District Facility # N-608
Project # N-1143830**

Dear Mr. Trevino:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This project is to divert natural gas pipeline condensate liquid prior to an oil-water separator system(s) into a 2,000 gallon aboveground storage tank.

After addressing all comments made during the 45-day EPA comment period, the District intends to issue the Authority to Construct 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. Nick Peirce, Permit Services Manager, at (209) 557-6400.

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Enclosures

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

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

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

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

**San Joaquin Valley Air Pollution Control District
Authority to Construct
Application Review**

Facility Name: Pacific Gas and Electric Company
Date: May 4, 2015
Mailing Address: P. O. Box 7640
San Francisco, CA 94120
Engineer: Jag Kahlon
Lead Engineer: Nick Peirce
Contact Person: Dan Zernickow, Consultant
Telephone: (510) 285-6351
Application #(s): N-608-32-0
Project #: N-1143830
Deemed Complete: January 8, 2015

I. PROPOSAL

PG&E has proposed to divert natural gas pipeline condensate liquid prior to an oil-water separator system(s) into a 2,000 gallon aboveground storage tank. The collected liquid will be loaded into a tanker truck for processing at an offsite facility.

The facility is operating under a Title V permit and proposed to receive the ATC with Certificate of Conformity (COC). Therefore, the required 45-day EPA notice will be conducted prior to the issuance of the ATC.

II. APPLICABLE RULES

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410 Prevention of Significant Deterioration (11/26/12)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 4001 New Source Performance Standards (4/14/99)
Rule 4002 National Emission Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101 Visible Emissions (02/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4623 Storage of Organic Liquids (5/19/05)
Rule 4624 Transfer of Organic Liquid (12/20/07)
California Health & Safety Code 41700 (Public Nuisance)
California Health & Safety Code 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 facility is located at McDonald Island, Holt, California. There is no K-12 school within 1,000 feet of this location. Therefore, school notice is not required under California Health & Safety Code 42301.6.

IV. PROCESS DESCRIPTION

The proposed project includes pipeline liquid condensate transfer, storage and loadout operation that will occur at PG&E's natural gas compression yard. During natural gas compression, various hydrocarbons condense and accumulate in the pipeline. Currently, the captured liquids are separated into aqueous and hydrocarbon streams via oil-water separator systems, and subsequently routed to appropriate storage vessels. The proposed project will allow PG&E to by-pass the oil water separator systems, and re-route the condensate liquid directly into a 2,000 gallon tank. The condensate will be loaded out into a tanker truck and will be shipped to an offsite facility for processing.

V. EQUIPMENT LISTING

PIPELINE LIQUID TRANSFER, STORAGE, AND LOADOUT OPERATION
CONSISTING OF A 2,000 GALLON CONVAULT ABOVEGROUND FIXED ROOF
STORAGE TANK (D-10) EQUIPPED WITH A PRESSURE VACUUM RELIEF
VALVE, AND TANKER TRUCK LOADOUT EQUIPMENT

VI. EMISSION CONTROL TECHNOLOGY EVALUATION

To reduce VOC emissions, PG&E has proposed to equip the tank with a pressure-vacuum relief valve.

VII. GENERAL CALCULATIONS

A. Assumptions

- VOC is the only pollutant of concern related to this project.
- The pipeline liquid stored in the tank is a mixture several VOC including gasoline range organics (C5-C12), diesel range organics (C10-C28), motor oil range organics (C24-C36), and several other organic compounds. The physical and chemical properties of this liquid are assumed to be similar to crude oil. Therefore, available data for crude oil will be used in the EPA's TANKS program (i.e., liquid molecular weight = 207 lb/lb-mol, vapor molecular weight = 50 lb/lb-mol, and density = 7.1 lb/gal @ 60°F) to estimate the tank emissions.
- Other assumptions will be stated as they are made during this evaluation.

B. Emission Factors (EF)

1. Pre-Project Emission Factors (EF1)

The proposed operation is a new operation. Therefore, EF1 is not available at this time.

2. Post-Project Emission Factors (EF2)

The proposed operation is expected to have emissions from the following activities:

Tank emissions

The potential emissions will be estimated using EPA's TANKS 4.0.d program. Therefore, EF2 is not listed here.

Truck loadout process

Truck loading emissions:

EPA's AP-42, Section 5.2, lists the following equation to estimate the emissions from loading petroleum liquids:

EF2 = 12.46 SPM/T, where

S = Saturation factor (0.5, submerged loading of a clean cargo tank, AP-42, Table 5.2-1)

P = True vapor pressure of liquid loaded, psia (1.5 psia¹)

M = Molecular weight of vapors (50 lb/lb-mol)

T = Temperature of bulk liquid loaded, °R (61.57 + 460 = 521.57°R)

EF2 = 0.9 lb-VOC/1,000 gal of liquid loaded

Connect/disconnect hoses during truck loading:

The liquid drainage is presumed to be 10 mL per disconnect. The entire amount of liquid drained is assumed to be emitted as VOC. Therefore,

$$\begin{aligned} \text{EF2} &= (10 \text{ mL/disconnect})(7.1 \text{ lb-product/gal})(2.6417 \times 10^{-4} \text{ gal/mL}) \\ &= 0.019 \text{ lb-VOC/disconnect} \end{aligned}$$

¹TVP is calculated using the method explained in Appendix B of Rule 4623 and using the proposed RVP of 3.3 psia and liquid storage temperature of 61.57°F from TANKS program.

$$\text{Calculated TVP} = (\text{RVP}) e^{[C_p(\text{RTEMP} - \text{TEMP})]} = (3.3) e^{[-8.212.1(1/(61.57+459.69) - 1/559.69)]} = 1.456 \text{ psia};$$

$$C_f = C_F = e^{[(2.3452061 \log(\text{RVP})) - 4.132622]} = e^{[(2.3452061 \log(3.3)) - 4.132622]} = 0.054 \text{ psia}$$

$$\text{Corrected TVP} = \text{Calculated TVP} + C_f;$$

$$\text{Corrected TVP} = 1.456 \text{ psia} + 0.054 \text{ psia} = 1.5 \text{ psia}$$

Fugitive emissions from equipment leaks:

The proposed installation will require additional valves and connectors to divert the condensate liquid. The emission factors for these components are summarized in the following table. These factors are taken from Table 2-1 of EPA's "Protocol for Equipment Leak Emissions Estimates (EPA-453/R-95-017 (November 1995))" document.

Component Type	Source Type	VOC Emission Factor
		lb/hr/source
Valves	Gas	0.01316
	Light Liquid	0.00889
	Heavy Liquid	0.00051
Connectors	Gas	0.00403
	Light Liquid	0.00403
	Heavy Liquid	0.00403

C. Calculations

1. Pre-Project Potential to Emit (PE1)

$$PE1 = 0 \text{ lb/day (0 lb/yr)}$$

2. Post Project Potential to Emit (PE2)

Tank emissions

EPA's TANKS 4.0.d program is used to determine daily and annual VOC emissions. A custom chemical data is made for pipeline liquid using the following information:

Product: Pipeline Liquid
 Liquid molecular weight: 207 g/mol
 Vapor molecular weight: 50 g/mol
 RVP = 3.3 (per applicant)

Per applicant, maximum filling rate will be limited to 900 gal/day and 16,000 gal/yr. This information along with the chemical data (above) will be used in the TANKS program to estimate the potential emissions.

Daily emissions:

To estimate daily emissions, it is assumed that 16,000 gallons of organic liquid is loaded into the tank in a month of July, which is considered to be the hottest month in the San Joaquin Valley. The TANKS results are:

$$\text{PE2 (working loss)} = 30.07 \text{ lb-VOC/month}$$

$$\text{PE2 (breathing loss)} = 6.14 \text{ lb-VOC/month}$$

The maximum tank filling rate is limited to 900 gal/day. Therefore, the working loss would be:

$$\begin{aligned} \text{PE2 (working loss)} &= (30.07 \text{ lb-VOC/month})(\text{month}/16,000 \text{ gal})(900 \text{ gal/day}) \\ &= 1.7 \text{ lb-VOC/day} \end{aligned}$$

$$\begin{aligned} \text{PE2 (breathing loss)} &= (6.14 \text{ lb-VOC/month})(\text{month}/31 \text{ days}) \\ &= 0.2 \text{ lb-VOC/day} \end{aligned}$$

$$\begin{aligned} \text{Total PE2} &= \text{PE2 (working loss)} + \text{PE2 (breathing loss)} \\ &= 1.7 \text{ lb-VOC/day} + 0.2 \text{ lb-VOC/day} \\ &= 1.9 \text{ lb-VOC/day} \end{aligned}$$

Annual emissions:

To estimate the annual emissions, it is assumed that 16,000 gallons of organic liquid is loaded into a tank over 12 months. The TANKS results are:

$$\text{PE2} = 58 \text{ lb-VOC/yr}$$

Note that printouts from TANKS program are included in Appendix II of this document.

Truck loadout process

Truck loading emissions:

Per applicant, the maximum loadout rates would be 2,000 gallons/day and 16,000 gallons/year. Thus,

$$\begin{aligned} \text{PE2} &= (0.9 \text{ lb-VOC}/1,000 \text{ gal of liquid loaded})(2,000 \text{ gal/day}) \\ &= 1.8 \text{ lb-VOC/day} \end{aligned}$$

$$\begin{aligned} \text{PE2} &= (0.9 \text{ lb-VOC}/1,000 \text{ gal of liquid loaded})(16,000 \text{ gal/yr}) \\ &= 14 \text{ lb-VOC/yr} \end{aligned}$$

Connect/disconnect hoses during truck loading:

Per applicant, loading hose will be disconnected from the tank and tanker truck after completing the liquid transfer. So, there will be two disconnects per loading event. The maximum loadout events would be 1 event/day and 12 events/yr. Thus,

$$\begin{aligned} \text{PE2} &= (0.019 \text{ lb-VOC/disconnect})(2 \text{ disconnect/event})(1 \text{ event/day}) \\ &= 0.04 \text{ lb-VOC/day} \\ &\approx 0.0 \text{ lb-VOC/day} \end{aligned}$$

$$\begin{aligned} \text{PE2} &= (0.019 \text{ lb-VOC/disconnect})(2 \text{ disconnect/event})(12 \text{ events/yr}) \\ &= 0.5 \text{ lb-VOC/yr} \\ &\approx 1 \text{ lb-VOC/yr} \end{aligned}$$

Fugitive emissions from equipment leaks:

The potential emissions from the new components will be estimated using the following equations.

$$\begin{aligned} \text{PE2} &= \text{VOC (lb/hr/source)} \times \text{component count} \times 24 \text{ hr/day} \\ &= \text{VOC (lb/hr/source)} \times \text{component count} \times 8,760 \text{ hr/yr} \end{aligned}$$

Component Type	Source Type	VOC	Component Count	PE2	
		lb/hr/source		lb/day	lb/yr
Valves	Gas	0.01316	0	0.0	0
	Light Liquid	0.00889	7	1.5	545
	Heavy Liquid	0.00051	0	0.0	0
Connectors	Gas	0.00403	0	0.0	0
	Light Liquid	0.00403	43	4.2	1,518
	Heavy Liquid	0.00403	0	0.0	0
Total:				5.7	2,063

Summary:

Operation/Process	PE2 (lb/day)	PE2 (lb/yr)
Tank emissions	1.9	58
Truck loadout process	1.8	14
Equipment leaks	5.7	2,063
Total:	9.4	2,135

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 ATCs or PTOs at the Stationary Source and the quantity of Emission Reduction Credits (ERCs) 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.

Except for permit units N-608-18 through '-21, the potential emissions are taken from the application review under project N-1140284. The potential emissions for permit units N-608-18 through '-21 are taken from the application review under project N-1133496.

Permit#	Pollutants (lb/yr)				
	NO _x	SO _x	PM ₁₀	CO	VOC
N-608-1-5	2,315	1	9	95	147
N-608-2-5	2,315	1	9	95	147
N-608-3-5	2,315	1	9	95	147
N-608-4-5	2,315	1	9	95	147
N-608-7-5	9,837	280	748	8,263	17,082
N-608-24-4					
N-608-8-3	0	0	0	0	479
N-608-13-5	830	0	59	178	67
N-608-14-5	830	0	59	178	67
N-608-15-2	297	0	3	489	4
N-608-16-3	0	0	0	0	1
N-608-17-3	0	0	0	0	1
N-608-18-4	15,672	44	2,183	51,808	15,599
N-608-19-4	15,672	44	2,183	51,808	15,599
N-608-20-4	12,186	33	1,673	40,284	12,129
N-608-21-4	12,186	33	1,673	40,284	12,129
N-608-25-5	10,021	286	762	8,418	17,082
N-608-26-5					
N-608-27-1	1,711	269	489	11,611	2,958
N-608-28-1	1,711	269	489	11,611	2,958
N-608-29-1	1,711	269	489	11,611	2,958
N-608-30-1	0	0	0	0	160
N-608-31-1	0	0	0	0	160
Total without ERCs	91,924	1,531	10,846	236,923	100,021
ERC N-126-3	0	0	0	60,300	0
ERCN-868-1	0	0	0	0	12,402
Total with ERCs	91,924	1,531	10,846	297,223	112,423

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 ATCs or PTOs, except for emissions units proposed to be shut down as part of the Stationary Project, at the Stationary Source and the quantity of Emission Reduction Credits (ERCs) 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.

Permit#	Pollutants (lb/yr)				
	NO _x	SO _x	PM ₁₀	CO	VOC
N-608-1-5	2,315	1	9	95	147
N-608-2-5	2,315	1	9	95	147
N-608-3-5	2,315	1	9	95	147
N-608-4-5	2,315	1	9	95	147
N-608-7-5	9,837	280	748	8,263	17,082
N-608-24-4					
N-608-8-3	0	0	0	0	479
N-608-13-5	830	0	59	178	67
N-608-14-5	830	0	59	178	67
N-608-15-2	297	0	3	489	4
N-608-16-3	0	0	0	0	1
N-608-17-3	0	0	0	0	1
N-608-18-4	15,672	44	2,183	51,808	15,599
N-608-19-4	15,672	44	2,183	51,808	15,599
N-608-20-4	12,186	33	1,673	40,284	12,129
N-608-21-4	12,186	33	1,673	40,284	12,129
N-608-25-5	10,021	286	762	8,418	17,082
N-608-26-5					
N-608-27-1	1,711	269	489	11,611	2,958
N-608-28-1	1,711	269	489	11,611	2,958
N-608-29-1	1,711	269	489	11,611	2,958
N-608-30-1	0	0	0	0	160
N-608-31-1	0	0	0	0	160
N-608-32-0	0	0	0	0	2,135
Total without ERCs	91,924	1,531	10,846	236,923	102,156
ERC N-126-3	0	0	0	60,300	0
ERC N-868-1	0	0	0	0	12,402
Total with ERCs	91,924	1,531	10,846	297,223	114,558

5. Major Source Determination

Rule 2201 Major Source Determination

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- Any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)

- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165.

Rule 2201 Major Source Determination (lb/year)					
Category	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE1	91,924	1,531	10,846	236,923	100,021
SSPE2	91,924	1,531	10,846	236,923	102,156
Major Source Thresholds	20,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	Yes	Yes

From the above table, the facility is a Major Source for NO_x, CO and VOC emissions.

Rule 2410 Major Source Determination

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore, the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)						
Category	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Estimated Facility PE before Project Increase	46	50	1	118	5	5
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	No	No	No	No	No

From the above table, the facility is not an existing Major Source under PSD.

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE is equal to pre-project Potential to Emit (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.

N-608-32-0

BE = 0 lb-VOC/yr for each emission unit

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."

Per section VII.C.5 of this document, this facility is a Major Source for NO_x, CO and VOC emissions. However, this project involves VOC emissions only; therefore, the analysis is limited to VOC emissions only.

To determine if the proposed project triggers an SB-288 major modification, net emission increase (NEI) is calculated by determining the sum of the difference of PE2 and historical emissions (HE) of all the units involved in the project. This NEI value is then compared with the SB 288 Major Modification threshold of 50,000 lb-VOC/year.

$$NEI = \sum(PE2 - HE)$$

HE = 0, therefore,

$$NEI = \sum PE2 \\ = 2,135 \text{ lb-VOC/yr} < 50,000 \text{ lb-VOC/yr}$$

The total VOC emissions from the units involved in the project are less than the SB 288 Major Modification threshold. Therefore, this project is not an SB 288 Major Modification.

8. Federal Major Modification

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

Per section VII.C.5 of this document, this facility is a Major Source for NO_x, CO and VOC emissions. This project results increase in VOC emissions; therefore, the analysis is limited to VOC emissions only.

Page 5 of the District's draft policy "Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/10) for SB288 Major Modifications and Federal Major Modifications" states, "...*calculated emission increases using the procedures below from new or modified emission units that are less than or equal to 0.5 lb/day are rounded to 0 (consistent with District Policy APR-1130 Increases Maximum Daily Permitted Emissions Less Than or Equal to 0.5 lb/day). This calculation is performed on an emission unit by emission unit basis. New or modified emission units with emission increases that round to 0 shall not constitute a Federal Major Modification.*"

Tank emissions:

The average emissions increase is determined to be 0.2 lb-VOC/day (58 lb-VOC/yr + 365 days/yr), which is below the 0.5 lb/day threshold. Thus, this increase is equated to zero.

Tank loadout process:

Truck loading emissions:

The average emissions increase is determined to be 0.04 lb-VOC/day (14 lb-VOC/yr + 365 days/yr), which is below the 0.5 lb/day threshold. Thus, this increase is equated to zero.

Connect/disconnect hoses during truck loading:

The average emissions increase is determined to be 0.003 lb-VOC/day (1 lb-VOC/yr + 365 days/yr), which is below the 0.5 lb/day threshold. Thus, this increase is equated to zero.

Fugitive emissions from equipment leaks:

Page 7 of the District's draft policy "Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/10) for SB288 Major Modifications and Federal Major Modifications" states that "...*increases in fugitive emissions are only included for the source categories specified in 40 CFR 51.165*".

Natural gas processing facilities are not included as one of the source categories in 40 CFR 51.165. Therefore, the fugitive emissions increase from equipment leaks will not be counted.

Summary:

Since the total emissions increase does not exceed 0 lb/yr threshold for Federal Major Modification, this project is not a Federal Major Modification.

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 are: (See 52.21 (b) (23) definition of significant)

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM
- PM₁₀

Step 1:

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not.

Per section VII.D.3 of this document, this facility is not an existing Major Source under PSD.

Step2:

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

I. Potential to Emit for New or Modified Emission Units vs PSD Major Source Thresholds

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

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)(i). Therefore, the following PSD Major Source thresholds are applicable.

Note that fugitive emissions are not included here, as natural gas processing was not one of the source categories listed in 40 CFR 51.165.

Category	Potential to Emit (tons/year)					
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Total PE N-608-32-0	0.0	1.1	0.0	0.0	0.0	0.0
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	No	No	No	No	No	No

As shown in the table above, the project potential to emit, by itself, does not exceed any of the PSD major source thresholds. Therefore, Rule 2410 is not applicable and no further discussion is required.

10. Quarterly Net Emissions Change (QNEC)

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

VIII. COMPLIANCE

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements shall be triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless exempted pursuant to Section 4.2, BACT shall be required for the following actions²:

- a. Any new emissions unit or relocation from one Stationary Source to another of an existing emissions unit with a Potential to Emit (PE2) exceeding 2.0 pounds in any one 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 in any one day;
- 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 in this rule.

Tank emissions:

The potential emissions are not greater than 2.0 lb/day for VOC emissions. Furthermore, the emissions increase from this unit does not trigger an SB-288 or Federal major modification. Therefore, this operation did not trigger BACT for VOC emissions.

²Except 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

Tank loadout process:

Truck loading emissions:

Connect/disconnect hoses during truck loading:

For each operation, the potential emissions are not greater than 2.0 lb/day for VOC emissions. Furthermore, the emissions increase from each process operation does not trigger an SB-288 or Federal major modification. Therefore, these operations did not trigger BACT for VOC emissions.

Fugitive emissions from equipment leaks:

The potential emissions from each valve or connector are not greater than 2.0 lb/day for VOC emissions. Furthermore, the emissions increase from these units does not trigger an SB-288 or Federal major modification. Therefore, BACT is not triggered for VOC emissions.

Note that the discussion in sections VII.C.2, VII.C.7 and VII.C.8 were reviewed to arrive at the conclusion for each of the above operations.

B. Offsets

1. Offset Applicability

Offsets are examined on pollutant-by-pollutant basis. The following table summarizes SSPE2, offset thresholds, and whether or not offsets are triggered.

Category	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2 (lb/yr)	91,924	1,531	10,846	236,923	102,156
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	Yes	No	No	Yes	Yes

As seen in the table above, offsets are triggered for NO_x, CO and VOC emissions. However, this project only involves VOC emissions. Therefore, the discussion in the following section will be limited to VOC emissions.

2. Quantity of Offsets Required

Section 4.7.1 of Rule 2201 states that for pollutants with SSPE1 greater than the emission offset threshold levels, emission offsets shall be provided for all increases in Stationary Source emissions, calculated as the differences of post-project Potential to Emit (PE2) and the Baseline Emissions (BE) of all new and modified emissions units, plus all increases in Cargo Carrier emissions. Thus,

$$EOQ = \Sigma(PE2 - BE) + ICCE, \text{ where}$$

PE2 = Post-Project Potential to Emit (lb/yr)
BE = Baseline Emissions (lb/yr)
ICCE = Increase in Cargo Carrier emissions (lb/yr)

There is no increase in Cargo Carrier emissions from this project. Thus,

$$EOQ = \Sigma(PE2 - BE)$$

Per section VII.C.6 of this document, BE = 0. Thus,

$$\begin{aligned} EOQ &= \Sigma PE2 \\ &= (58 + 14 + 2,063) \text{ lb-VOC/yr} \\ &= 2,135 \text{ lb-VOC/yr (533.75 lb-VOC/qtr)} \end{aligned}$$

PG&E has proposed to use an Emission Reduction Credit (ERC) certificate N-868-1 to offset the emissions increase from this project. This certificate has enough credits to overcome the proposed emissions increase.

C. Public Notification

1. Applicability

Public noticing is required for:

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

Per calculations in section VII of this document, this project does not exceed thresholds in any of the above listed items. Thus, public notice is not required for this project.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions to a level at or below the emissions associated with the maximum design capacity. The following DELs are being established for the proposed tank:

Tank emissions:

- The Reid vapor pressure (RVP) of the organic stored in the tank shall not exceed 3.3 psia. [District Rules 2201 and 4623]

- The organic liquid transfer into the tank shall not exceed any of the following limits: 900 gallons/day and 16,000 gallons/year (12-month rolling basis). [District Rule 2201]
- VOC emissions from transferring and storage of organic liquid in the tank shall not any of the following limits: 1.9 lb/day and 58 lb/year. [District Rule 2201]

Tank loadout process:

Truck loading emissions:

- VOC emissions from tanker truck loading operation shall not exceed 0.9 lb/1,000 gallons of pipeline condensate liquid loaded. [District Rule 2201]
- The organic liquid loading into tanker truck(s) shall not exceed any of the following limits: 2,000 gallons/day and 16,000 gallons/yr (12-month rolling basis). [District Rule 2201]

Connect/disconnect hoses during truck loading:

- The organic liquid drainage from disconnections associated with the tanker truck loadout equipment shall not exceed 10 mL per disconnect. [District Rule 2201]
- The total number of disconnects shall not exceed any of the following limits: 2 disconnects/day and 24 disconnects/year (12-month rolling basis). [District Rule 2201]

Fugitive emissions from equipment leaks:

- Fugitive VOC emissions from components (i.e., valves and connectors located within 60 feet of piping to the D-10 tank) used to route the organic liquid into the tank shall not exceed any of the following limits: 5.7 lb/day and 2,063 lb/year. [District Rule 2201]
- Fugitive VOC emissions shall be calculated using the EPA "Protocol for Equipment Leak Emissions Estimates (EPA-453/R-95-017 (November 1995), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

Tank emissions:

PG&E will be required to determine RVP and then TVP at the actual temperature of the liquid within 60-days of initial startup and at least once every 24 months thereafter. This testing is consistent with the applicable requirements from District Rule 4623.

Tank loadout process:

Truck loading emissions:

The truck loading emissions are estimated using EPA's AP-42 calculation methodology. Therefore, no initial or periodic testing is considered.

Connect/disconnect hoses during truck loading:

PG&E will also be required to measure the average organic liquid drainage (mL) from three consecutive disconnects within 60-days of initial startup. This measurement will verify compliance 10 mL drainage proposed by PG&E. Periodic testing is not considered for this process since the annual emissions are insignificant from this process.

Equipment leak emissions (valves, connectors, etc.):

The potential emissions from valves and connectors are determined using generally accepted emission factors. Therefore, initial and annual testing is not considered.

2. Monitoring

Tank emissions:

Tank loadout process:

No monitoring is required.

Equipment leak emissions (valves, connectors, etc.):

PG&E is required to monitor the components for leaks within 60-days of initial startup and at least once every 12 months thereafter. Leaking components are required to be repaired or replaced within 72 hours of leak detection.

3. Recordkeeping

Tank emissions:

PG&E will be required to keep records of liquid transfer rate (gal/day, gal/yr), RVP, TVP and the temperature of the liquid.

Tank loadout process:

Truck loading emissions:

PG&E will be required to keep records of the liquid loaded (gal/day, gal/yr) into the tanker trucks.

Connect/disconnect hoses during truck loading:

PG&E will be required to keep records of the drainage measurements.

Equipment leak emissions (valves, connectors, etc.):

PG&E will be required to keep records of the date, name of component and its location, and measured ppmv value, name of the operator and the company conducting the leak inspection.

Each record is required to be kept for a periodic of at least five years from the date such record is entered in a log book.

4. Reporting

Tank emissions:

Tank loadout process:

Equipment leak emissions (valves, connectors, etc.):

No reports are required.

Compliance is expected with this Rule.

Rule 2410 Prevention of Significant Deterioration

As discussed in section VII.C.9 of this document, this project is not subject to the requirements of this rule.

Rule 2520 Federally Mandated Operating Permits

PG&E is a Major Source for NO_x, CO and VOC emissions. Therefore, this facility is subject to the requirements of this rule. The proposed project is a "minor modification" to the Title V permit, as the project is not an SB-288 or Federal Major Modification. PG&E has proposed to process this project with COC. The following conditions will be included in the permit:

- This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201]
- 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]

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs and
- The source's suggested draft permit (Appendix I of this document) and

- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used (Appendix IV of this document).

Section 5.3.4 of this rule requires the permittee shall file an application for administrative permit amendments prior to implementing the requested change except when allowed by the operational flexibility provisions of section 6.4 of this rule. The facility is expected to notify the District by filing TV Form-008 upon implementing the ATC. The District Compliance Division is expected to submit a change order to implement ATC into Permit to Operate (PTO).

Compliance is expected with this Rule.

Rule 4001 New Sources Performance Standards

40 CFR Part 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced After July 23, 1984

§60.110b: Applicability

This subpart applies to each storage vessel with a capacity greater than 75 m³ (19,813 gal) that is used to store a volatile organic liquid for which construction, reconstruction, or modification is commenced after July 23, 1984. A storage vessel may be exempt from the requirements of this subpart as long as it qualifies §60.110b(b) or §60.110b(d), or meet alternate means of compliance in §60.110b(e).

The proposed operation contains a 2,000 gallon tank. Since the capacity of this tank is below the threshold of 19,813 gallons (as mentioned in the above paragraph), this tank is not subject to the requirements of this subpart.

40 CFR Part 60 Subpart OOOO—Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution

§60.5365: Applicability

This subpart applies to the owner or operator of one or more of the onshore affected facilities listed in paragraphs (a) through (g) of this section for which you commence construction, modification or reconstruction after August 23, 2011.

§60.5365(e) states each storage vessel affected facility, which is a single storage vessel located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment, and has the potential for VOC emissions equal to or greater than 6 tpy as determined according to this section by October 15, 2013 for Group 1 storage vessels and by April 15, 2014, or 30 days after startup (whichever is later) for Group 2 storage vessels, except as provided in paragraphs (e)(1) through (4) of this section. The potential for VOC emissions must be calculated using a generally accepted model or calculation methodology, based on the maximum average daily throughput determined for a 30-day period of

production prior to the applicable emission determination deadline specified in this section. The determination may take into account requirements under a legally and practically enforceable limit in an operating permit or other requirement established under a Federal, State, local or tribal authority.

The proposed operations contain a tank that meets the definition of "storage vessel" under this subpart. However, the potential VOC emissions from the tank are 0.03 tons/year, which are below the threshold of 6 tons/year (as mentioned in the above paragraph). Therefore, this tank is not subject to the requirements of this subpart.

Rule 4002 National Emission Standards for Hazardous Air Pollutants

40 CFR Part 63 Subpart HH—National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities **§63.760: Applicability and designation of affected source**

- (a) This subpart applies to the owners and operators of the emission points, specified in paragraph (b) of this section that are located at oil and natural gas production facilities that meet the specified criteria in paragraphs (a)(1) and either (a)(2) or (a)(3) of this section.
- (1) Facilities that are major or area sources of hazardous air pollutants (HAP) as defined in §63.761. Emissions for major source determination purposes can be estimated using the maximum natural gas or hydrocarbon liquid throughput, as appropriate, calculated in paragraphs (a)(1)(i) through (iii) of this section. As an alternative to calculating the maximum natural gas or hydrocarbon liquid throughput, the owner or operator of a new or existing source may use the facility's design maximum natural gas or hydrocarbon liquid throughput to estimate the maximum potential emissions. Other means to determine the facility's major source status are allowed, provided the information is documented and recorded to the Administrator's satisfaction in accordance with §63.10(b)(3). A facility that is determined to be an area source, but subsequently increases its emissions or its potential to emit above the major source levels, and becomes a major source, must comply thereafter with all provisions of this subpart applicable to a major source starting on the applicable compliance date specified in paragraph (f) of this section. Nothing in this paragraph is intended to preclude a source from limiting its potential to emit through other appropriate mechanisms that may be available through the permitting authority.
- (2) Facilities that process, upgrade, or store hydrocarbon liquids.
- (3) Facilities that process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. For the purposes of this subpart, natural gas enters the natural gas transmission and storage source category after the

natural gas processing plant, when present. If no natural gas processing plant is present, natural gas enters the natural gas transmission and storage source category after the point of custody transfer.

PG&E (N-608) is an area source of HAP emissions (see Appendix V for HAP calculations), and the facility stores hydrocarbon liquids. Therefore, this subpart applies to this facility.

(b) The affected sources for major sources are listed in paragraph (b)(1) of this section and for area sources in paragraph (b)(2) of this section.

This facility is an area source; therefore, the affected sources are mentioned in paragraph (b)(2) of this section.

Section (b)(2) states that for area sources, the affected source includes each triethylene glycol (TEG) dehydration unit located at a facility that meets the criteria specified in paragraph (a) of this section.

The proposed project involves pipeline condensate liquid transfer, storage and loadout operations which are not affected sources under the above section. The glycol dehydration units are covered under separate permits. Therefore, no further discussion is required.

40 CFR Part 63 Subpart HHH—National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities

§63.1270: Applicability

§63.1270(a) states that this subpart applies to owners and operators of natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user (if there is no local distribution company), and that are major sources of hazardous air pollutants (HAP) emissions as defined in §63.1271.

Section 63.1270(b) states that the affected source is each new and existing glycol dehydration unit specified in paragraphs (b)(1) through (3) of this section.

PG&E (N-608) is not a major source of HAP emissions (see Appendix V for HAP calculations). Further, this project does not involve glycol dehydration unit. Therefore, they are not subject to the requirements in this subpart.

Rule 4102 Nuisance

Section 4.0 prohibits discharge of air contaminants, which could cause injury, detriment, nuisance or annoyance to the public. The following condition will be placed on each permit:

- No air contaminant shall be released into the atmosphere, which causes a public nuisance. [District Rule 4102]

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. Risk Management Review summary results are summarized in the following table:

Risk Management Review Summary			
Categories	Unit 32-0	Project Totals	Facility Totals
Prioritization Score	0.0	0.0	>1
Acute Hazard Index	0.01	0.01	0.61
Chronic Hazard Index	0.00	0.00	0.00
Maximum Individual Cancer Risk (10^{-6})	0.6	0.6	4.1
T-BACT Required?	No		
Special Permit Conditions?	No		

The acute and chronic hazard indices were below 1.0; and the cancer risk is less than or equal to 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).

Compliance is expected with this Rule.

Rule 4623 Storage of Organic Liquids

Section 2.0 - Applicability

This rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored.

The proposed tank can hold up to 2,000 gallons of organic liquid. Therefore, this tank is subject to the requirements of this rule.

Section 5.1 - VOC Control System Requirements

Except for small producers who are required to comply with the VOC control system requirements in Section 5.1.2, an operator shall not place, hold, or store organic liquid in any tank unless such tank is equipped with a VOC control system identified in Table 1.

The specifications for the VOC control system are described in Sections 5.2, 5.3, 5.4, 5.5, and 5.6. Section 5.1.1 identifies the following VOC control systems.

Tank Design Capacity (TDC) (gallon)	True Vapor Pressure (TVP) of Organic Liquid		
	0.5 psia < TVP <1.5 psia	1.5 psia < TVP <11 psia	TVP ≥ 11 psia
1,100 ≤ TDC ≤ 19,800	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System
19,800 < TDC ≤ 39,600	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System
TDC > 39,600	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System

RVP of the liquid stored in a 2,000 gallon tank is 3.3 psi which is estimated to be 1.5 psia. Based on this information, the rule requires PG&E to install a pressure vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system. PG&E has elected to install pressure vacuum relief valve. Thus, compliance is expected with this section. The following condition will be included in the permit:

- The Reid vapor pressure (RVP) of the organic stored in the tank shall not exceed 3.3 psia. [District Rules 2201 and 4623]

Note that equip description will state that the tank is equipped with a pressure vacuum relief valve. Therefore, no additional condition is necessary.

Section 5.2 - Specifications for Pressure-Vacuum Relief Valve

The pressure-vacuum relief valve shall be set to within 10 percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure.

The following condition will be included in the permit:

- The pressure-vacuum relief valve shall be set to within 10 percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall

remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623]

Section 6.2, Administrative Requirements: TVP and API Gravity Testing of Stored Organic Liquid in Uncontrolled Fixed Roof Tanks

Section 6.2.1.1 states that an operator shall conduct an initial TVP testing of each uncontrolled fixed roof tank.

Section 6.2.2.2 states that the TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. If the tank stores crude oil or petroleum distillates, the operator shall also conduct an API gravity testing.

Section 6.2.2 requires an operator to conduct a TVP testing of each uncontrolled fixed roof tank at least once every 24 months during summer (July – September), and/or whenever there is a change in the source or type of organic liquid stored in each tank. The operator shall submit the records of TVP and/or API gravity testing to the APCO as specified in Section 6.3.6.

The following conditions will be included in the permit:

- The owner or operator shall determine TVP within 60 days of initial startup and at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in the tank. The records of TVP testing shall be submitted within 45 days after the date of testing. The records shall include the tank identification number, permit number, type of stored organic liquid, TVP of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
- TVP shall be determined at actual storage temperature of the organic liquid in the tank. [District Rule 4623]

Section 6.3, Administrative Requirements: Recordkeeping

Section 6.3.1 requires an operator to keep an accurate record of each organic liquid stored in each tank, including its storage temperature, TVP, and API gravity (crude oil or petroleum distillate) for a period of at least five years. The following conditions will be included in the permit:

- The owner or operator shall keep records of the date, name of the organic liquid stored, organic liquid RVP, TVP and its storage temperature. [District Rules 2201 and 4623]
- All records shall be retained for a minimum of five years and shall be made available to the District, ARB, or EPA during normal business hours and submitted upon request. [District Rules 2201, 4623 and 4624]

Section 6.4, Administrative Requirements: Test Methods

Section 6.4.3 states that the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323-94 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "ARB Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989.

The following condition will be included in the permit:

- TVP of the organic liquid shall be determined by measuring the RVP using ASTM D 323-94 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "ARB Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. Should the permittee want to use different methodology, then that methodology should be first approved by the District and or the EPA. [District Rules 2201 and 4623]

Section 7.1, Compliance Schedule

Section 7.1 states that any tank subject to the requirements of this rule that is installed or constructed on and after May 19, 2005, shall be in full compliance with this rule upon initial operation, and thereafter.

The proposed tank is expected to be operated in full compliance with this rule upon initial operation and thereafter.

Compliance is expected with this section.

Rule 4624 Transfer of Organic Liquid

Section 4.1 of this rule states that the requirements of Section 5.0 of this rule shall not apply to organic liquid transfer facilities which transfer less than 4,000 gallons of organic liquids in any one day. The operator shall meet the applicable recordkeeping requirements of Section 6.1.1.

Section 6.1.1 states that an operator claiming exemption under Section 4.1 shall keep records of daily liquid throughput.

PG&E will be limited to transfer 2,000 gal/day of liquid condensate into a tanker truck. They will be required to keep record of daily loadout rate. The following conditions will be included in the permit:

- The organic liquid loading into tanker truck(s) shall not exceed any of the following limits: 2,000 gallons/day and 16,000 gallons/yr (12-month rolling basis). [District Rules 2201 and 4624]
- The owner or operator shall keep records of: a.) date, b.) amount of organic liquid loaded into a tanker truck (gallons/day), c.) amount of organic liquid loaded into a tanker truck (gallons/month), and d.) cumulative total amount of organic liquid loaded into a tanker truck in a consecutive 12-month rolling period. [District Rules 2201 and 4624]

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 proposed changes did not trigger Best Available Control Technology (BACT) requirements. Furthermore, the District concludes that potential health impacts are less than significant from the proposed changes. Therefore, this project does not require discretionary judgment or deliberation. Consequently, this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts CEQA for those projects over which a public agency exercises only ministerial approval; therefore, the District finds that this project to be exempt from the provisions of CEQA.

IX. RECOMMENDATION

Compliance with all applicable regulations is expected. Therefore, issuance of the ATCs is recommended after addressing comments from the applicant and the EPA.

X. BILLING INFORMATION

Permit #	Fee Schedule	Fee Description	Previous Fee Schedule
N-608-32-0	3020-05 A	2,000 gal	None

APPENDICES

- Appendix I: Draft Authority to Construct Permit
- Appendix II: EPA's TANKS 4.0.9d Printouts
- Appendix III: Quarterly Net Emissions Change
- Appendix IV: Compliance Certification Form
- Appendix V: Major HAP Source Determination

Appendix I
Draft Authority to Construct Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-608-32-0

LEGAL OWNER OR OPERATOR: PACIFIC GAS & ELECTRIC CO.
MAILING ADDRESS: ATTN: AIR QUALITY PERMITS
P O BOX 7640
SAN FRANCISCO, CA 94120

LOCATION: MCDONALD ISLAND COMPRESSOR STATION
HOLT, CA 95234

EQUIPMENT DESCRIPTION:
PIPELINE LIQUID TRANSFER, STORAGE, AND LOADOUT OPERATION CONSISTING OF A 2,000 GALLON
CONVAULT ABOVEGROUND FIXED ROOF STORAGE TANK (D-10) EQUIPPED WITH A PRESSURE VACUUM RELIEF
VALVE, AND TANKER TRUCK LOADOUT EQUIPMENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The Reid vapor pressure (RVP) of the organic stored in the tank shall not exceed 3.3 psia. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. The organic liquid transfer into the tank shall not exceed any of the following limits: 900 gallons/day and 16,000 gallons/year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emissions from transferring and storage of organic liquid in the tank shall not any of the following limits: 1.9 lb/day and 58 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT
Arnaud Marjolle, Director of Permit Services
14-008-32-0 May 4 2010 9:26AM - KAH/LOU Joint Inspection NOT Required

7. The owner or operator shall determine TVP within 60 days of initial startup and at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in the tank. The records of TVP testing shall be submitted within 45 days after the date of testing. The records shall include the tank identification number, permit number, type of stored organic liquid, TVP of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. TVP shall be determined at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
9. TVP of the organic liquid shall be determined by measuring the RVP using ASTM D 323-94 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in Appendix B. Appendix B is an excerpt from the oil and gas section of "ARB Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. Should the permittee want to use different methodology, then that methodology should be first approved by the District and or the EPA. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. The pressure-vacuum relief valve shall be set to within 10 percent of the maximum allowable working pressure of the tank. The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings. The pressure-vacuum relief valve shall be properly installed and maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 4623] Federally Enforceable Through Title V Permit
11. The owner or operator shall keep records of the date, name of the organic liquid stored, organic liquid RVP, TVP and its storage temperature. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. The owner or operator shall keep records of: a.) date, b.) amount of organic liquid transferred into the tank (gallons/day), c.) amount of organic liquid transferred into the tank (gallons/month), and d.) cumulative total amount of organic liquid transferred into the tank in a consecutive 12-month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
13. VOC emissions from tanker truck loading operation shall not exceed 0.9 lb/1,000 gallons of pipeline condensate liquid loaded. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The organic liquid loading into tanker truck(s) shall not exceed any of the following limits: 2,000 gallons/day and 16,000 gallons/yr (12-month rolling basis). [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
15. The owner or operator shall keep records of: a.) date, b.) amount of organic liquid loaded into a tanker truck (gallons/day), c.) amount of organic liquid loaded into a tanker truck (gallons/month), and d.) cumulative total amount of organic liquid loaded into a tanker truck in a consecutive 12-month rolling period. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
16. The organic liquid drainage from disconnections associated with the tanker truck loadout equipment shall not exceed 10 mL per disconnect. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The total number of disconnects shall not exceed any of the following limits: 2 disconnects/day and 24 disconnects/year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit
18. The operator shall determine an average organic liquid drainage for three consecutive disconnects to demonstrate compliance with the permitted organic liquid drainage limit of 10 mL per disconnect. The drainage shall be determined within 60 days of initial startup of the tanker truck transfer operation and the associated records shall be submitted within 45 days after the testing. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The owner or operator shall keep records of: a.) date, b.) number of disconnects (disconnects/day), c.) number of disconnects (gallons/month), and d.) cumulative total number of disconnects in a consecutive 12-month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Fugitive VOC emissions from components (i.e., valves and connectors located within 60 feet of piping to the D-10 tank) used to route the organic liquid into the tank shall not exceed any of the following limits: 5.7 lb/day and 2,063 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. Fugitive VOC emissions shall be calculated using the EPA "Protocol for Equipment Leak Emissions Estimates (EPA-453/R-95-017 (November 1995), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
22. For the components covered under this permit, the owner or operator shall keep records of the type of component, number of components, emission factors, total daily (lb/day) and annual VOC emissions (lb/year). [District Rule 2201] Federally Enforceable Through Title V Permit
23. Except as otherwise provided in this permit, all piping, valves, and fittings under this permit shall be constructed and maintained in a leak-free condition. Leak free condition is defined as a condition without a gas leak or a liquid leak. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Gas leak is a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the test method in Section 6.4.8 of Rule 4623. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
25. Liquid Leak is dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
26. Upon detection of a leaking component covered under this permit, the operator shall affix to that component a weatherproof readily visible tag with the date and time of leak detection, the date and time of leak measurement, and for gas leaks, the leak concentration in ppmv. The tag shall remain affixed to the component until the component is repaired or replaced. [District Rule 2201] Federally Enforceable Through Title V Permit
27. All equipment that are found leaking shall be repaired or replaced within 72 hours of detection. The repaired or replaced equipment must be re-inspected. [District Rule 2201] Federally Enforceable Through Title V Permit
28. The owner or operator shall inspect the components (i.e., valves and connectors) under this permit unit within 60 days of initial startup and at least once every 12 months thereafter. The leak inspections shall be performed using a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Method 21. The instrument shall be calibrated with methane in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. [District Rule 2201] Federally Enforceable Through Title V Permit
29. For each component inspected, the owner or operator shall keep records of the date, name of component, its location, measured ppmv value, the name of the operator and the company conducting the leak inspection. [District Rule 2201] Federally Enforceable Through Title V Permit
30. All records shall be retained for a minimum of five years and shall be made available to the District, ARB, or EPA during normal business hours and submitted upon request. [District Rules 2201, 4623 and 4624] Federally Enforceable Through Title V Permit
31. Prior to operating under this permit, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 533 lb, 2nd quarter: 534 lb, 3rd quarter: 534 lb, and 4th quarter: 534 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
32. VOC ERC N-868-1 (or a certificate split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201] Federally Enforceable Through Title V Permit

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Appendix II
EPA's TANKS 4.0.9d Printouts

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification:	N-608-32-0
City:	Holt
State:	California
Company:	Pacific Gas and Electric Company
Type of Tank:	Vertical Fixed Roof Tank
Description:	2,000 gallon aboveground storage tank

Tank Dimensions

Shell Height (ft):	4.00
Diameter (ft):	9.60
Liquid Height (ft) :	4.00
Avg. Liquid Height (ft):	2.00
Volume (gallons):	2,165.84
Turnovers:	7.39
Net Throughput(gal/yr):	16,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	0.00
Slope (ft/ft) (Cone Roof)	0.00

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.50

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

N-608-32-0 - Vertical Fixed Roof Tank
Holt, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Pipeline Liquid	Jul	72.25	63.02	81.48	61.57	2.1045	1.7355	2.5354	50.0000			207.00	Option 4: RVP=3.3

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

N-608-32-0 - Vertical Fixed Roof Tank
Holt, California

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):							6.1420					
Vapor Space Volume (cu ft):							144.7646					
Vapor Density (lb/cu ft):							0.0184					
Vapor Space Expansion Factor:							0.0908					
Vented Vapor Saturation Factor:							0.8176					
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):							144.7646					
Tank Diameter (ft):							9.6000					
Vapor Space Outage (ft):							2.0000					
Tank Shell Height (ft):							4.0000					
Average Liquid Height (ft):							2.0000					
Roof Outage (ft):							0.0000					
Roof Outage (Cone Roof)												
Roof Outage (ft):							0.0000					
Roof Height (ft):							0.0000					
Roof Slope (ft/ft):							0.0000					
Shell Radius (ft):							4.8000					
Vapor Density												
Vapor Density (lb/cu ft):							0.0184					
Vapor Molecular Weight (lb/lb-mole):							50.0000					
Vapor Pressure at Daily Average Liquid												
Surface Temperature (psia):							2.1046					
Daily Avg. Liquid Surface Temp. (deg. R):							531.9229					
Daily Average Ambient Temp. (deg. F):							77.6500					
Ideal Gas Constant R												
(psia cu ft / (lb-mol-deg R)):							10.731					
Liquid Bulk Temperature (deg. R):							521.2358					
Tank Paint Solar Absorptance (Shell):							0.1700					
Tank Paint Solar Absorptance (Roof):							0.1700					
Daily Total Solar Insulation												
Factor (Btu/sq ft day):							2,688.0000					
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:							0.0908					
Daily Vapor Temperature Range (deg. R):							36.9149					
Daily Vapor Pressure Range (psia):							0.7999					
Breather Vent Press. Setting Range (psia):							0.5300					
Vapor Pressure at Daily Average Liquid												
Surface Temperature (psia):							2.1046					
Vapor Pressure at Daily Minimum Liquid												
Surface Temperature (psia):							1.7355					
Vapor Pressure at Daily Maximum Liquid												
Surface Temperature (psia):							2.5354					
Daily Avg. Liquid Surface Temp. (deg. R):							531.9229					
Daily Min. Liquid Surface Temp. (deg. R):							522.6941					
Daily Max. Liquid Surface Temp. (deg. R):							541.1518					
Daily Ambient Temp. Range (deg. R):							33.5000					
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:							0.8176					
Vapor Pressure at Daily Average Liquid												
Surface Temperature (psia):							2.1046					

Vapor Space Outage (ft):	2.0000
Working Losses (lb):	30.0657
Vapor Molecular Weight (lb/lb-mole):	50.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	2.1046
Net Throughput (gal/mo.):	16,000.0000
Annual Turnovers:	7.3874
Turnover Factor:	1.0000
Maximum Liquid Volume (gal)	2,165,8358
Maximum Liquid Height (ft):	4.0000
Tank Diameter (ft):	9.6000
Working Loss Product Factor:	0.7500
Total Losses (lb):	36.2076

**TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals**

Emissions Report for: July

**N-608-32-0 - Vertical Fixed Roof Tank
Holt, California**

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Pipeline Liquid	30.07	6.14	36.21

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	N-608-32-0
City:	Holt
State:	California
Company:	Pacific Gas and Electric Company
Type of Tank:	Vertical Fixed Roof Tank
Description:	2,000 gallon aboveground storage tank

Tank Dimensions

Shell Height (ft):	4.00
Diameter (ft):	9.60
Liquid Height (ft) :	4.00
Avg. Liquid Height (ft):	2.00
Volume (gallons):	2,165.84
Turnovers:	7.54
Net Throughput(gal/yr):	16,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	0.00
Slope (ft/ft) (Cone Roof)	0.00

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.50

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

N-608-32-0 - Vertical Fixed Roof Tank
Holt, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Pipeline Liquid	All	63.76	57.19	70.34	61.57	1.7630	1.5309	2.0231	50.0000			207.00	Option 4: RVP=3.3

**TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals**

Emissions Report for: Annual

**N-608-32-0 - Vertical Fixed Roof Tank
Holt, California**

Components	Losses(lbs)		
	Working Loss	Breathing Loss	Total Emissions
Pipeline Liquid	25.19	33.06	58.25

Appendix III
Quarterly Net Emissions Change

Quarterly Net Emissions Change (QNEC)

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.

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} ÷ 4 quarters/year

PE1_{quarterly} = PE1_{annual} ÷ 4 quarters/year

Quarterly NEC [QNEC] for N-608-32-0			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO _x	0	0	0
SO _x	0	0	0
PM ₁₀	0	0	0
CO	0	0	0
VOC	533.75	0	533.75

Appendix IV
Compliance Certification Form



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
 MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: Pacific Gas & Electric Company	FACILITY ID: N- 608
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: Pacific Gas & Electric Company	
3. Agent to the Owner: Diana MW Furman	

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

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment 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:

Rolando I. Trevino
 Signature of Responsible Official

12/12/2014
 Date

Rolando I. Trevino
 Name of Responsible Official (please print)

Vice President, Engineering & Design, Gas Operations
 Title of Responsible Official (please print)

Appendix V
Major HAP Source Determination

Major Air Toxics Source Determination

To determine whether the facility is a Major Air Toxics Source, the facility-wide hazardous air pollutant (HAP) emissions will be compared to the Major Air Toxics Source thresholds. Those thresholds are 10 tons/yr of any single HAP or combined HAP emissions of 25 tons/yr. To determine the facility-wide potential to emit of HAPS, the facility-wide natural gas and diesel usage limits will be applied to the appropriate emission factor. The emission factors are from the California Air Toxics Emission Factors (CATEF) database.

Note that except for the dehydration units and condensate storage tanks, all HAP calculations were taken from the previous Title V renewal project under project N-1092120.

Natural Gas fired IC Engines (>650 bhp):

Permit #	Maximum Fuel Usage (MMScf/yr)
N-608-18-3	65.9835
N-608-19-3	65.9835
N-608-20-3	51.3084
N-608-21-3	51.3084
N-608-27-1	95.6208
N-608-28-1	95.6208
N-608-29-1	95.6208
Total	521.4462

The hourly fuel usages are from various application materials, and the annual quantities were arrived at utilizing the appropriate operating hour limits.

Toxic Emissions (natural Gas fired IC Engines > 650 bhp)		
Compound	Emission Factor (lb/MMscf)	Potential to Emit (lb/yr)
Acenaphthene	0.000217	0.113
Acenaphthylene	0.000735	0.383
Acetaldehyde	2.62	1,366
Acrolein	0.161	84.0
Anthracene	0.000171	0.0892
Benzene	0.259	135.1
Benzo(a)anthracene	0.0000992	0.0517
Benzo(a)pyrene	0.000003880	0.00202
Benzo(b)fluoranthene	0.0000798	0.0416
Benzo(g,h,i)perylene	0.0000171	0.00892
Benzo(k) fluoranthene	0.0000121	0.00631
1,3 Butadiene	0.415	216.4

Continue...

Toxic Emissions (natural Gas fired IC Engines > 650 bhp)		
Compound	Emission Factor (lb/MMscf)	Potential to Emit (lb/yr)
Chrysene	0.0000225	0.0117
Dibenz(a,h)anthracene	0.00000388	0.00202
Ethylbenzene	0.115	60.0
Fluoranthene	0.000475	0.248
Fluorene	0.000798	0.416
Formaldehyde	20.9	10,898.2
Indeno(1,2,3cd)pyrene	0.0000109	0.00568
Napthalene	0.0310	16.2
Phenanthrene	0.00275	1.43
Propylene	12.1	6,309
Pyrene	0.000326	0.170
Toluene	0.394	205.4
Xylene (total)	0.965	503.2
Total	---	19,796

Natural Gas fired IC Engines (<650 bhp):

Permit #	Maximum Fuel Usage (MMScf/yr)
N-608-1-5	0.5016
N-608-2-5	0.5016
N-608-3-5	0.5016
N-608-4-5	0.5016
N-608-15-2	0.1502
Total	2.1566

The hourly fuel usages are from various application materials, and the annual quantities were arrived at utilizing the appropriate operating hour limits.

Toxic Emissions (natural Gas fired IC Engines < 650 bhp)		
Compound	Emission Factor (lb/MMscf)	Potential to Emit (lb/yr)
Acenaphthene	0.00393	0.00848
Acenaphthylene	0.0162	0.0349
Acetaldehyde	1.82	3.93
Acrolein	1.37	2.95
Anthracene	0.00226	0.00487
Benzene	10.2	22.0
Benzo(a)anthracene	0.000339	0.000731

Continue...

Toxic Emissions (natural Gas fired IC Engines < 650 bhp)		
Compound	Emission Factor (lb/MMscf)	Potential to Emit (lb/yr)
Benzo(a)pyrene	0.000151	0.000326
Benzo(b)fluoranthene	0.000301	0.000649
Formaldehyde	0.14	0.30
Benzo(k) fluoranthene	0.000117	0.000252
Chrysene	0.000395	0.000851
Dibenz(a,h)anthracene	0.0000145	0.0000313
Ethylbenzene	0.0144	0.0311
Fluoranthene	11.4	24.6
Fluorene	0.00904	0.0195
Indeno(1,2,3cd)pyrene	0.000207	0.000446
Napthalene	0.0866	0.187
Phenanthrene	0.00885	0.0191
Propylene	42.0	90.6
Pyrene	0.00264	0.00569
Toluene	2.62	5.65
Xylene (total)	0.0738	0.159
Benzo(g,h,i)perylene	0.000245	0.000528
1,3 Butadiene	0.105	0.226
Total	---	151

Natural Gas Dehydration Units:

Permit #	Maximum Fuel Usage (MMBtu/yr)	Maximum Fuel Usage (MMScf/yr)
N-608-7-4	59,130	59.13
N-608-24-3		
N-608-25-5	100,214.4	100.2144
N-608-26-5		
Total		159.3

The conversion from MMBtu/yr to MMscf/yr was made assuming a natural gas heat content of 1,000 Btu/scf.

Toxic Emissions (natural Gas fired IC Engines)		
Compound	Emission Factor (lb/MMscf)	Potential to Emit (lb/yr)
Benzene	0.283	45.08
Ethylbenzene	0.00915	1.46
Formaldehyde	0.0000490	0.01
Hydrogen Sulfide	0.115	18.32
Toluene	0.192	30.59
Xylene (m)	0.0231	3.68
Xylene (o)	0.00858	1.37
Xylene (p)	0.00781	1.24
Total	---	101.75

Gasoline Dispensing Operation (N-608-8-2):

Gasoline vapors are listed on the CARB list of AB-2588 pollutants.

$$PE_{\text{Gasoline}} = 1,135 \text{ lb/yr (EE for Project N-1060086)}$$

Methanol Storage Tanks (N-608-16-2 and N-608-17-2):

As explained in the Application Review document for project N-1071202, the emissions will consist solely of natural gas, which is the blanketing gas. Natural gas does include some constituents that are VOC. The VOC emission quantities were determined during the processing of the applications for the above mentioned project to be 1 pound per year per tank.

As shown in the CARB VOC speciation manual (Code 520), natural gas includes the following fraction of these constituents:

Ethane	0.0510
Isobutane	0.0010
Methane	0.9370
N-Butane	0.0010
Propane	0.01

An examination of the Clean Air Act Amendments of 1990 List of Hazardous Air Pollutants showed that none of these items is a hazardous air pollutant. Therefore, no hazardous air pollutant emissions are expected.

Diesel Fired IC Engines:

Permit #	Maximum Fuel Usage (gallons per year)
N-608-13-5	1,450
N-608-14-5	1,450
Total	2,900 (2.900 x 10 ³)

The hourly fuel usages are from various application material, and the annual quantities were arrived at utilizing the appropriate operating hour limits.

Toxic Emissions (Emergency Diesel Fired IC Engines)		
Compound	Emission Factor (lb/10 ³ gal)	Potential to Emit (lb/yr)
Acenaphthene	0.000867	0.00251
Acenaphthylene	0.00132	0.00383
Acetaldehyde	0.00646	0.0187
Acrolein	0.00179	0.00519
Anthracene	0.000289	0.000838
Benzene	0.104	0.302
Benzo(a)anthracene	0.0000969	0.000281
Benzo(a)pyrene	0.0000477	0.000138
Dibenz(a,h)anthracene	0.000280	0.000812
ethylbenzene	0.00803	0.0233
fluoranthene	0.000330	0.000957
fluorene	0.00124	0.00360
formaldehyde	0.176	0.510
Hexane	0.00147	0.00426
Indeno(1,2,3-cd)pyrene	0.000280	0.000812
Napthalene	0.0319	0.0925
phenanthrene	0.00648	0.0188
propylene	0.345	1.00
pyrene	0.000280	0.000812
toluene	0.111	0.322
Xylene (total)	0.0206	0.0597
Total	---	2

Condensate Storage Tanks (N-608-30-1 and N-608-31-1):

Per prioritization worksheets under project N-1063164, each tank results in:

Xylene (mixed) = 0.4 lb/yr

Benzene = 0.28 lb/yr

Toluene = 0.4 lb/yr

Condensate Transfer, Storage and Loadout (N-608-32-0):
Per RMR worksheets under project N-1143830,

HAP	CAS#	Fugitives (lb/yr)	Tank emissions (lb/yr)	Truck disconnect (lb/yr)	Truck loading (lb/yr)	Total (lb/yr)
Benzene	71432	41.30	1.16	0.02	0.3	43
Ethylbenzene	100414	20.60	0.58	0.01	0.15	21
Hexane	110543	371.00	10.44	0.18	2.7	384
Toluene	108883	165.00	4.64	0.08	1.2	171
Xylenes	1330207	206.00	5.8	0.1	1.5	213

Summary of HAP Emissions (Annual Total Individual)

Compound	IC Engines (lb/yr)			Dehydration	Storage/Dispensing/Loadout (lb/yr)				Total (lb/yr)
	Natural gas fired > 650 bhp	Natural gas fired < 650 bhp	Diesel (all)	Dehydrators (lb/yr)	Condensate Storage Tanks (lb/yr)	Methanol (lb/yr)	Gasoline (lb/yr)	Condensate Transfer, Storage and loadout (lb/yr)	
Acenaphthene	0.113	0.00848	0.00251	---	---	---	---	---	0.1
Acenaphthylene	0.383	0.0349	0.00383	---	---	---	---	---	0.4
Acetaldehyde	1,366	3.93	0.0187	---	---	---	---	---	1,369.9
Acrolein	84.0	2.95	0.00519	---	---	---	---	---	87.0
Anthracene	0.0892	0.00487	0.000838	---	---	---	---	---	0.1
Benzene	135.1	22.0	0.302	45.08	0.28	---	---	43	245.8
Benzo(a)anthracene	0.0517	0.000731	0.000281	---	---	---	---	---	0.1
Benzo(a)pyrene	0.00202	0.000326	0.000138	---	---	---	---	---	0.0
Benzo(b)fluoranthene	0.0416	0.000649	---	---	---	---	---	---	0.0
Benzo(g,h,i)perylene	0.00892	0.000528	---	---	---	---	---	---	0.0
Benzo(k) fluoranthene	0.00631	0.000252	---	---	---	---	---	---	0.0
1,3 Butadiene	216.4	0.226	---	---	---	---	---	---	216.6
Chrysene	0.0117	0.000851	---	---	---	---	---	---	0.0
Dibenz(a,h)anthracene	0.00202	0.0000313	0.000812	---	---	---	---	---	0.0
Ethylbenzene	60.0	0.0311	0.0233	1.46	---	---	---	21	82.5
Fluoranthene	0.248	24.6	0.000957	---	---	---	---	---	24.8
Fluorene	0.416	0.0195	0.00360	---	---	---	---	---	0.4
Formaldehyde	10,898.2	0.30	0.510	0.01	---	---	---	---	10,899.0
Gasoline Vapor	---	---	---	---	---	---	1,135	---	1,135.0
Hexane	---	---	0.00426	---	---	---	---	384	384.0
Hydrogen Sulfide	---	---	---	18.32	---	---	---	---	18.3
Indeno(1,2,3cd)pyrene	0.00568	0.000446	0.000812	---	---	---	---	---	0.0
Methanol Vapor	---	---	---	---	---	0	---	---	0.0
Napthalene	16.2	0.187	0.0925	---	---	---	---	---	16.5
Phenanthrene	1.43	0.0191	0.0188	---	---	---	---	---	1.5
Propylene	6,309	90.6	1.00	---	---	---	---	---	6,400.6
Pyrene	0.170	0.00569	0.000812	---	---	---	---	---	0.2
Toluene	205.4	5.65	0.322	30.59	0.4	---	---	171	413.4
Xylene (total)	503.2	0.159	0.0597	6.29	0.4	---	---	213	723.1
Total:									22,019.4

As can be seen, the combined potential HAP emissions from the permitted equipment at the facility are less than 25 tons per year and the potential to emit of each single HAP is less than 10 tons per year. Therefore, the facility is not a major source of HAP emissions.