air pollution control district
SANTA BARBARA COUNTY

DRAFT

PERMIT TO OPERATE 16213

and

PART 70 OPERATING PERMIT 16213

PACIFIC COAST ENERGY ACQUISITIONS, LLC

ORCUTT HILL AND CASMALIA OIL FIELDS STATIONARY SOURCE

MORGANTI LEASE

CASMALIA OILFIELD
SANTA BARBARA COUNTY, CALIFORNIA

OPERATOR

Pacific Coast Energy Company LP

OWNERSHIP

Pacific Coast Energy Acquisitions, LLC

Santa Barbara County
Air Pollution Control District

(District Permit to Operate)
(Part 70 Operating Permit)

April 2025

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ABBREVIATIONS/ACRONYMS

AP-42	USEPA's *Compilation of Emission Factors*
District	Santa Barbara County Air Pollution Control District
API	American Petroleum Institute
ASTM	American Society for Testing Materials
BACT	Best Available Control Technology
bpd	barrels per day (1 barrel = 42 gallons)
CAM	compliance assurance monitoring
CEMS	continuous emissions monitoring
dscf	dry standard cubic foot
EU	emission unit
°F	degree Fahrenheit
gal	gallon
gr	grain
HAP	hazardous air pollutant (as defined by CAAA, Section 112(b))
H_2S	hydrogen sulfide
I&M	inspection & maintenance
k	kilo (thousand)
l	liter
lb	pound
lbs/day	pounds per day
lbs/hr	pounds per hour
LACT	Lease Automatic Custody Transfer
LPG	liquid petroleum gas
M	thousand
MACT	Maximum Achievable Control Technology
MM	million
MW	molecular weight
NG	natural gas
NSPS	New Source Performance Standards
O_2	oxygen
OCS	outer continental shelf
PM	particulate matter
PM_{10}	particulate matter less than 10 µm in size
$PM_{2.5}$	particulate matter less than 2.5 µm in size
ppm (vd or w)	parts per million (volume dry or weight)
psia	pounds per square inch absolute
psig	pounds per square inch gauge
PRD	pressure relief device
PTO	Permit to Operate
RACT	Reasonably Available Control Technology
ROC	reactive organic compounds, same as "VOC" as used in this permit
RVP	Reid vapor pressure
scf	standard cubic foot
scfd (or scfm)	standard cubic feet per day (or per minute)
SIP	State Implementation Plan
STP	standard temperature (60°F) and pressure (29.92 inches of mercury)
THC	Total hydrocarbons
tpy, TPY	tons per year
TVP	true vapor pressure
USEPA	United States Environmental Protection Agency
VE	visible emissions

1.0 Introduction

1.1 Purpose

General: The Santa Barbara County Air Pollution Control District (District) is responsible for implementing all applicable federal, state and local air pollution requirements which affect any stationary source of air pollution in Santa Barbara County. The federal requirements include regulations listed in the Code of Federal Regulations: 40 CFR Parts 50, 51, 52, 55, 61, 63, 68, 70 and 82. The State regulations may be found in the California Health & Safety Code, Division 26, Section 39000 et seq. The applicable local regulations can be found in the District's Rules and Regulations. This is a combined permitting action that covers both the Federal Part 70 and state permitting requirements. This facility was formerly permitted by the District as Permit to Operate 8096.

Santa Barbara County is designated as a non-attainment area for the state ozone and PM_{10} ambient air quality standard.

Part 70 Permitting. The Orcutt Hill Oil Field was developed in the 1920s by Union Oil Company and consisted of sixteen facilities originally permitted by the District as the Pacific Coast Energy Company Orcutt Hill Stationary Source. These facilities are listed below in Section 1.2.1. This stationary source was subsequently determined to be subject to the Part 70 permitting program and Part 70 permits were issued for these facilities. In February 2024, Pacific Coast Energy Company purchased the leases associated with the Casmalia Stationary Source (N.R. Bonetti, Arellanes, Morganti, Casmalia ICEs, Musico and Righetti) which thereby became incorporated into this stationary source which was renamed the Pacific Coast Energy Company - Orcutt Hill and Casmalia Oil Fields Stationary Source. The Escolle, Escolle (Amrich) and Careaga leases were also purchased at this time and incorporated into this stationary source. This is the initial Part 70 permit for this facility while operated by PCEC and is being issued in accordance with the requirements of the District's Part 70 operating permit program.

This Part 70 permit may include additional applicable requirements and associated compliance assurance conditions. The Pacific Coast Energy Company - Orcutt Hill and Casmalia Oil Fields Stationary Source is a major source for VOC[1], NO_X and CO. Conditions listed in this permit are based on federal, state or local rules and requirements. Sections 9.A, 9.B and 9.C of this permit are enforceable by the District, the USEPA and the public since these sections are federally-enforceable under Part 70. Where any reference contained in Sections 9.A, 9.B or 9.C refers to any other part of this permit, that part of the permit referred to is federally-enforceable. Conditions listed in Section 9.D are "District-only" enforceable.

Pursuant to the stated aims of Title V of the CAAA of 1990 (i.e., the Part 70 operating permit program), this Part 70 permit has been designed to meet two objectives. First, compliance with all conditions in this permit would ensure compliance with all federally-enforceable requirements for the facility. Second, the permit would be a comprehensive document to be used as a reference by the permittee, the regulatory agencies and the public to assess compliance.

[1] VOC as defined in Regulation XIII has the same meaning as reactive organic compounds as defined in Rule 102. The term ROC shall be used throughout the remainder of this document, but where used in the context of the Part 70 regulation, the reader shall interpret the term as VOC.

This reevaluation incorporates greenhouse gas emission calculations for the stationary source. On January 20, 2011, the District revised Rule 1301 to include greenhouse gases (GHGs) that are "subject to regulation" in the definition of "Regulated Air Pollutants". District Part 70 operating permits incorporate the revised definition.

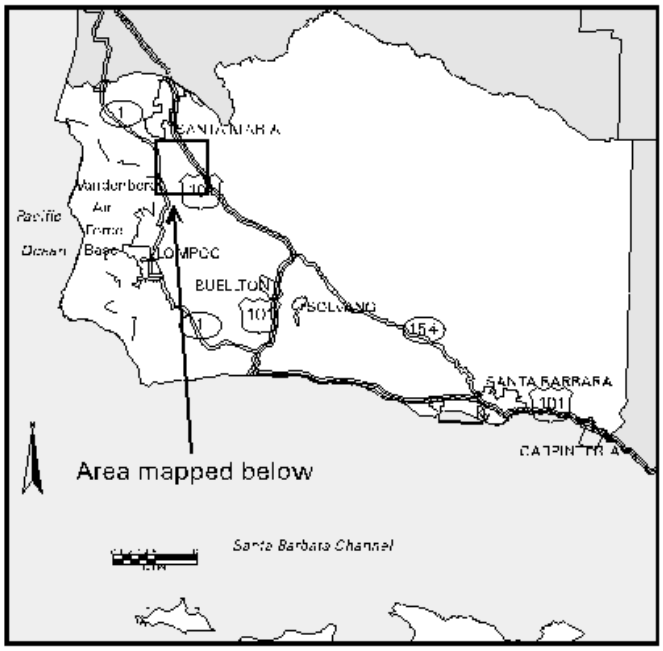
1.2 Facility Overview

1.2.1 General Overview: The Morganti Lease is located in the Casmalia Oil Field [*Reference:* CA DOG Map 311: Section 24, T9N, R35W], approximately two miles north of the of the town of Casmalia in Santa Barbara County. Several transfers of ownership/operator have since taken place and are listed below. The most recent change was an owner/operator change from Team Operating Co. to Pacific Coast Energy Company (PCEC) which occurred in February 2024.

Date of Transfer	Former Owner/Operator	New Owner/Operator
June 1993	UNOCAL	Saba Petroleum Corp.
January 2000	Saba Petroleum Corp.	Greka SMV
March 2021	Greka HVI Cat Canyon	Team Operating Co.
February 2024	Team Operating Co.	Pacific Energy Acquisitions Company/ Pacific Coast Energy Company

Figure 1.1 shows the relative location of the facility within the county. For District regulatory purposes, the facility is located in the Northern Zone of Santa Barbara County[2].

[2] District Rule 102, Definition: "Northern Zone"



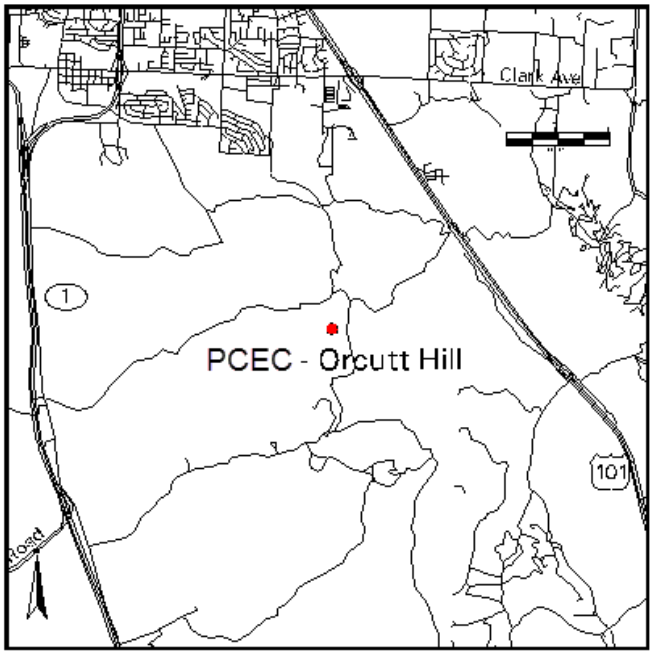


Figure 1.1 Location Map for the Morganti Lease

The *Pacific Coast Energy Company - Orcutt Hill and Casmalia Oil Fields Stationary Source* (SSID 2667), consists of the following facilities:

- California Coast Lease (FID 3206)
- Fox Lease (FID 3313)
- Dome Lease (FID 3314)
- Folsom Lease (FID 3316)
- Graciosa Lease (FID 3318)
- Hartnell Lease (FID 3319)
- Hobbs Lease (FID 3320)
- Newlove Lease (FID 3321)
- Pinal Lease (FID 3322)
- Rice Ranch Lease (FID 3323)
- Squires Lease (FID 3324)
- Getty-Hobbs Lease (FID 3495)
- Orcutt Hill Compressor Plant (FID 4104)
- Orcutt Hill & Casmalia IC Engines (FID 4214)
- Orcutt Hill Steam Generators (FID 10482)
- Orcutt Hill Field (MVFF) (FID 1904)
- Careaga Lease (FID 1517)
- Casmalia ICEs (FID 4216)
- N.R. Bonetti Lease (FID 4501)
- Escolle Lease (Amrich) (FID 11593)
- Escolle Lease (FID 3315)
- Arellanes Lease (FID 3212)
- Morganti Lease (FID 3303)
- MuscioLease (FID 3304)
- Righetti Lease (FID 3948)

The Morganti Lease consists of the following oil and gas production systems:

- Oil & gas wells
- Crude Oil Storage Tanks
- Diluent Tank
- Flare
- Glycol Reboiler
- Loading Rack
- Fugitive Hydrocarbons

Oil and gas wells located at the Morganti Lease, as well as, production from wells from various other Casmalia Oil Field leases are produced to separation facilities located at the Morganti Lease. The separated crude is transferred offsite by loading rack. Produced gas is flared.

1.2.2 Facility New Source Review Overview: The equipment on the Morganti Lease was in place and operating before a permit to operate was required. Therefore, the equipment was not subject to New Source Review requirements and was issued a Permit to Operate without an Authority to Construct. There have been no modifications at this facility subject to NSR since issuance of the initial District permit. The only permit actions occurring at this facility since issuance of the previous permit reevaluation is the issuance of PTO 8096-R12 and the lease transfer to PCEC.

1.3 Emission Sources

Emissions from the Morganti Lease are those associated with the equipment listed below. Section 4 of the permit provides the District's engineering analysis of these emission sources. Section 5 of the permit describes the allowable emissions from each permitted emissions unit.

The emission sources include:

- Twenty-four oil and gas wells and associated well cellars
- Crude Oil Storage Tanks
- Flare
- Glycol reboiler
- Crude oil loading Rack
- Fugitive emission components

1.4 Emission Control Overview

Air quality emission controls are utilized at the Morganti Lease. Emission controls employed at this facility include:

→ A Fugitive Hydrocarbon Inspection & Maintenance program for detecting and repairing leaks of hydrocarbons from piping components, i.e., valves, flanges and seals, consistent with the requirements of the District Rule 331 to reduce ROC emissions by approximately 80-percent.
→ Vapor Recovery Unit
→ A program to keep well cellars pumped out consistent with the requirements of District Rule 344.
→ H_2S Scrubbers to reduced H_2S of the produced gas.

1.5 Offsets/Emission Reduction Credit Overview

The Pacific Coast Energy Company - Orcutt Hill and Casmalia Oil Fields Stationary Source triggers offsets for NOx and ROC emissions. See section 7.3 for details.

1.6 Part 70 Operating Permit Overview

1.6.1 Federally-enforceable Requirements: All federally-enforceable requirements are listed in 40 CFR Part 70.2 (*Definitions*) under "applicable requirements". These include all SIP-approved District Rules, all conditions in the District-issued Authority to Construct permits, and all conditions applicable to major sources under federally promulgated rules and regulations. These requirements are enforceable by the public under CAAA. (*see Tables 3.1 and 3.2 for a list of federally-enforceable requirements)*

1.6.2 Insignificant Emissions Units: Insignificant emission units are defined under District Rule 1301 as any regulated air pollutant emitted from the unit, excluding HAPs, that are less than 2 tons per year based on the unit's potential to emit and any HAP regulated under section 112(g) of the Clean Air Act that does not exceed 0.5 ton per year based on the unit's potential to emit. Insignificant activities must be listed in the Part 70 application with supporting calculations. Applicable requirements may apply to insignificant units.

1.6.3 Federal Potential to Emit: The federal potential to emit (PTE) of a stationary source does not include fugitive emissions of any pollutant, unless the source is: (1) subject to a federal NSPS/NESHAP requirement which was in effect as of August 7, 1980, or (2) included in the 29-category source list specified in 40 CFR 70.2. The federal PTE does include all emissions

from any insignificant emissions units. There is no equipment at this facility subject to a federal NSPS/NESHAP requirement, nor is it included in the 29-category list, therefore the federal PTE does not include fugitive emissions. (*See Section 5.4 for the federal PTE for this source)*

1.6.4 Permit Shield: The operator of a major source may be granted a shield: (a) specifically stipulating any federally-enforceable conditions that are no longer applicable to the source and (b) stating the reasons for such non-applicability. The permit shield must be based on a request from the source and its detailed review by the District. Permit shields cannot be indiscriminately granted with respect to all federal requirements. The permittee has not made a request for a permit shield.

1.6.5 Alternate Operating Scenarios: A major source may be permitted to operate under different operating scenarios, if appropriate descriptions of such scenarios are included in its Part 70 permit application and if such operations are allowed under federally-enforceable rules. The permittee made no request for permitted alternative operating scenarios.

1.6.6 Compliance Certification: Part 70 permit holders must certify compliance with all applicable federally-enforceable requirements including permit conditions. Such certification must accompany each Part 70 permit application and be re-submitted annually on the anniversary date of the permit or on a more frequent schedule specified in the permit. A "responsible official" of the owner/operator company whose name and address is listed prominently in the Part 70 permit signs each certification. *(see Section 1.6.9 below)*

1.6.7 Permit Reopening: Part 70 permits are re-opened and revised if the source becomes subject to a new rule or new permit conditions are necessary to ensure compliance with existing rules. The permits are also re-opened if they contain a material mistake or the emission limitations or other conditions are based on inaccurate permit application data.

1.6.8 Hazardous Air Pollutants (HAPs): Part 70 permits regulate emissions of HAPs from major sources by requiring maximum achievable control technology (MACT), where applicable. The federal PTE for HAP emissions from a source is computed to determine MACT or any other rule applicability.

1.6.9 Responsible Official: The designated responsible official and his mailing address is:

Phil Brown Vice President of Operations
Pacific Coast Energy Company LLC
1555 Orcutt Hill Rd.
Orcutt, CA 93455

2.0 Process Description

2.1 Process Summary

2.1.1 Production: Oil, water, and gas are produced from twenty-four wells on the Morganti Lease and multiple wells located on various leased in the Casmalia Oil Field. Each well is equipped with a well cellar. Electric motors or internal combustion engines provide power to the well pump units. Produced fluids are separated, transferred to crude oil storage tanks and shipped offsite by loading rack. A glycol reboiler dehydrates produced gas which was then treated for H_2S removal and used as fuel for two boilers and a heater treater. The heater treater and boilers are currently non-operational however they remain on permit. The H_2S scrubbing equipment is idle. Any gas used as fuel at this facility is provided by an incoming gas line from the Escolle Lease. Produced gas is currently flared.

2.2 Support Systems

There are no additional support systems on the Morganti Lease.

2.3 Maintenance/Degreasing Activities

2.3.1 Paints and Coatings: Intermittent surface coating operations are conducted throughout the facility for occasional structural and equipment maintenance needs, including architectural coating. Normally only touch-up and equipment labeling or tagging is performed. All architectural coatings used are in compliance with District Rule 323.I, as verified through the rule-required recordkeeping.

2.3.2 Solvent Usage: Solvents not used for surface coating thinning may be used on the Morganti Lease for daily operations. Usage includes cold solvent degreasing and wipe cleaning with rags.

2.4 Planned Process Turnarounds

Maintenance of critical components is carried out according to the requirements of Rule 331 (*Fugitive Emissions Inspection and Maintenance*) during turnarounds. The permittee has not listed any emissions from planned process turnarounds that should be permitted.

2.5 Other Processes

2.5.1 Pits and Sumps: There are pits and sumps on the Morganti Lease.

2.5.2 Unplanned Activities/Emissions: The permittee does not anticipate or foresee any circumstances that would require special equipment use and result in excess emissions.

2.6 Detailed Process Equipment Listing

Refer to Attachment 10.5 for a complete listing of all permitted equipment.

3.0 Regulatory Review

This Section identifies the federal, state and local rules and regulations applicable to the Morganti Lease.

3.1 Rule Exemptions Claimed

📖 District Rule 202 (*Exemptions to Rule 201*): The following exemptions apply to this facility. An exemption from permit, however, does not necessarily grant relief from any applicable prohibitory rule.

- **Section D.6 De Minimis Exemptions:** This section requires Pacific Coast Energy to maintain a record of each de minimis change, which shall include emission calculations demonstrating that each physical change meets the criteria listed in the Rule. This exemption applies to a project in the broadest sense. Such records shall be made available to the District upon request. As of January 2023, the de minimis total at the Pacific Coast Energy Company - Orcutt Hill and Casmalia Oil Fields Stationary Source is 20.94 lbs ROC/day. This total does not include the previously claimed emissions from the Sx Sands project (ATC 13140).

- **Section D.8 Routine Repair and Maintenance:** A permit shall not be required for routine repair or main*tenance of* permitted equipment, not involving structural changes.

- **Section D.14 Architectural Coatings:** Application of architectural coating in the repair and maintenance of a stationary structure is exempt from permit requirements.

- **Section U.2 Degreasing Equipment:** Single pieces of degreasing equipment, which use unheated solvent, and which: a) have a liquid surface *area* of less than 1.0 square foot unless the aggregate liquid surface area of all degreasers at a stationary source, covered by this exemption is greater than 10 square feet; and b) use only organic solvents with an initial boiling point of 302^{O} F or greater; or c) use materials with a volatile organic compound content of two-percent or less by weight as determined by EPA Method 24.

- **Section U.3 Wipe Cleaning:** Equipment used in wipe cleaning operations provided that the solvents used do not exceed 55 gallons per year. The permittee shall maintain records of the amount of solvents used for each calendar year. These records shall be kept for a minimum of 3 years and be made available to the District on request.

In addition, the following two Rule 202 permit exemptions may apply:

- **Section F.1.c Internal Combustion Engines:** Engines used to propel vehicles, as defined in Section 670 of the California Vehicle Code, but not including any engine mounted on such vehicles that would otherwise require a permit under the provisions of District Rules and Regulations.

- **Section F.2 Portable Internal Combustion Engines:** Portable ICEs eligible for statewide registration pursuant to Title 13, Section 2450 *et seq*., and not integral to the stationary source operations.

The following Rule exemptions have been approved by the District:

📖 District Rule 321 (*Solvent Cleaning Operations*): Section D.4 exempts solvent wipe cleaning operations from the requirements of this rule.

📖 District Rule 331 (*Fugitive Emission Inspection and Maintenance*): The following exemptions were applied for in the permittee's Inspection and Maintenance Plan and approved by the District:

- Section B.2.b for components buried below the ground.
- Section B.2.c for stainless steel tube fittings.

📖 District Rule 344 (*Petroleum Sumps, Pits and Well Cellars*): The well cellars on the Morganti Lease are subject to Section D.3 of this rule. Compliance with this rule reduces well cellar emissions by 70-percent. For future modifications, compliance with District Regulation VIII (*New Source Review*), ensures that future modifications to the facility will comply with these regulations.

3.2 Compliance with Applicable Federal Rules and Regulations

3.2.1 40 CFR Parts 51/52 {*New Source Review (Nonattainment Area Review and Prevention of Significant Deterioration*)}: The Morganti Lease was constructed and permitted prior to the applicability of these regulations. All modifications are subject to the District's New Source Review regulation. Compliance with the regulation assures compliance with 40 CFR 51/52.

3.2.2 40 CFR Part 60 *{New Source Performance Standards}*: This facility is not currently subject to the provisions of this Subpart.

3.2.3 40 CFR Part 61 *{NESHAP}*: This facility is not currently subject to the provisions of this Subpart.

3.2.4 40 CFR Part 63 *{MACT}:* On June 17, 1999, EPA promulgated Subpart HH, National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Oil and Natural Gas Production and Natural Gas Transmission and Storage. The Morganti Lease is currently not subject to the provisions of this Subpart. Pursuant to issuance, a previous facility operator submitted information in June 2000 and supporting information in July 2000 indicating the Casmalia stationary source to be exempt from the requirements of this MACT based on its 'black oil' production.

3.2.5 40 CFR Part 64 *{Compliance Assurance Monitoring}:* This rule affects emission units at the source subject to a federally-enforceable emission limit or standard that uses a control device to comply with the emission standard, and either pre-control or post-control emissions exceed the Part 70 source emission thresholds. Compliance with this rule was evaluated and it was determined that no emission units at this facility are currently subject to CAM. All emission units at this facility have a pre-control emission potential less than 100 tons/year.

3.2.6 40 CFR Part 70 *{Operating Permits}:* This Subpart is applicable to the Morganti Lease. Table 3.1 lists the federally-enforceable District promulgated rules that are "generic" and apply to the Morganti Lease. Table 3.2 lists the federally-enforceable District promulgated rules that are "unit-specific" that apply to the Morganti Lease. These tables are based on data available from the District's administrative files and from the permittee's Part 70 Operating permit application. Table 3.4 includes the adoption dates of these rules.

In its Part 70 permit application, the permittee certified compliance with all existing District rules and permit conditions. This certification is also required of the permittee semi-annually.

3.3 Compliance with Applicable State Rules and Regulations

3.3.1 Division 26. Air Resources {California Health & Safety Code}: The administrative provisions of the Health & Safety Code apply to this facility and will be enforced by the District. These provisions are District-enforceable only.

3.3.2 California Administrative Code Title 17: These sections specify the standards by which abrasive blasting activities are governed throughout the State. All abrasive blasting activities at the Morganti Lease are required to conform to these standards. Compliance will be assessed through onsite inspections. These standards are District-enforceable only. However, CAC Title 17 does not preempt enforcement of any SIP-approved rule that may be applicable to abrasive blasting activities.

3.3.3 Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities (CCR Title 17, Section 95665 *et. Seq.*): On October 1, 2017, the California Air Resources Board (CARB) finalized this regulation, which establishes greenhouse gas emission standards for onshore and offshore crude oil and natural gas production facilities. This facility is subject to the provisions of this regulation. This facility is exempt from the leak detection and repair (LDAR) requirements of the CARB regulation per Section 95669(b)(1), which exempts components, including components found on tanks, separators, wells and pressure vessels, that are subject to District Rule 331 LDAR requirements prior to January 1, 2018. This facility does not utilize circulation tanks for well stimulation treatments, centrifugal natural gas compressors, natural gas powered pneumatic devices or pumps, natural gas only wells, or well casing vents, and is therefore not subject to the CARB regulation standards and requirements for these equipment and processes.

3.4 Compliance with Applicable Local Rules and Regulations

3.4.1 Applicability Tables: Tables 3.1 and 3.2 list the federally enforceable District rules that apply to the facility. Table 3.3 lists the non-federally-enforceable District rules that apply to the facility. Table 3.4 lists the adoption date of all rules that apply to the facility.

3.4.2 Rules Requiring Further Discussion: This section provides a more detailed discussion regarding the applicability and compliance of certain rules.

The following is a rule-by-rule evaluation of compliance for this facility:

Rule 201 - Permits Required: This rule applies to any person who builds, erects, alters, replaces, operates or uses any article, machine, equipment, or other contrivance that may cause the issuance of air contaminants. The equipment included in this permit is listed in Attachment 10.5. An Authority to Construct is required to return any de-permitted equipment to service and may be subject to New Source Review.

Rule 210 - Fees: Pursuant to Rule 201.G, District permits are reevaluated every three years. This includes the re-issuance of the underlying permit to operate. Also included are the PTO fees. The fees for this facility are based on District Rule 210, Fee Schedule A; however Part 70 specific costs are based on cost reimbursement provisions (Rule 210.C). Attachment 10.3 provides the fee calculations for the reevaluated permit.

Rule 301 - Circumvention: This rule prohibits the concealment of any activity that would otherwise constitute a violation of Division 26 (Air Resources) of the California H&SC and District rules and regulations. To the best of the District's knowledge, the permittee is operating in compliance with this rule.

Rule 302 - Visible Emissions: This rule prohibits the discharge from any single source any air contaminants for which a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade than a reading of 1 on the Ringelmann Chart or of such opacity to obscure an observer's view to a degree equal to or greater than a reading of 1 on the Ringelmann Chart. Sources subject to this rule include all internal combustion engines at the facility. Improperly maintained diesel engines have the potential to violate this rule. Compliance is assured by requiring all engines to be maintained according to manufacturer maintenance schedules and by requiring visible emissions inspections of the diesel engines.

Rule 303 (Nuisance): Rule 303 prohibits any source from discharging such quantities of air contaminants or other material in violation of Section 41700 of the Health and Safety Code which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety or any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property. Compliance with this rule is assessed through the District's enforcement staff's complaint response program. Based on the source's location, the potential for public nuisance is small.

Rule 304 (Particulate Matter - Northern Zone): A person shall not discharge into the atmosphere from any source particulate matter in excess of 0.3 grain per cubic foot of gas at standard conditions.

Rule 309 - Specific Contaminants: Under Section "A", no source may discharge sulfur compounds and combustion contaminants (particulate matter) in excess of 0.2 percent as SO_2 (by volume) and 0.3 gr/scf (at 12% CO_2) respectively.

Rule 310 - Odorous Organic Compounds: This rule prohibits the discharge of H_2S and organic sulfides that result in a ground level impact beyond the property boundary in excess of either 0.06 ppmv averaged over 3 minutes and 0.03 ppmv averaged over 1 hour. No measured data exists to confirm compliance with this rule.

Rule 311 - Sulfur Content of Fuels: This rule limits the sulfur content of fuels combusted on the Morganti Lease to 0.5 percent (by weight) for liquids fuels and 50 gr/100 scf (calculated as H_2S) {or 796 ppmvd} for gaseous fuels. All piston IC engines on the lease are expected to be in compliance with the fuel limit as determined by fuel analysis documentation.

Rule 317 - Organic Solvents: This rule sets specific prohibitions against the discharge of emissions of both photochemically and non-photochemically reactive organic solvents (40 lb/day and 3,000 lb/day respectively). Solvents may be used on the lease during normal operations for degreasing by wipe cleaning and for use in paints and coatings in maintenance operations. There is the potential to exceed the limits under Section B.2 during significant surface coating activities. The permittee is required to maintain records to ensure compliance with this rule.

Rule 321 Solvent Cleaning Operations: This rule contains solvent reactive organic compounds (ROCs) content limits, revised requirements for solvent cleaning machines, and sanctioned solvent cleaning devices and methods. These rule provisions apply to solvent cleaning machines and wipe cleaning.

Rule 322 - Metal Surface Coating Thinner and Reducer: This rule prohibits the use of photochemically reactive solvents for use as thinners or reducers in metal surface coatings. The permittee is required to maintain records during maintenance operations to ensure compliance with this rule.

Rule 323.1 (Architectural Coatings): This rule sets the standards for any architectural coating that is supplied, sold, offered for sale, or manufactured for use within the District.

Rule 324 - Disposal and Evaporation of Solvents: This rule prohibits any source from disposing more than one and a half gallons of any photochemically reactive solvent per day by means that will allow the evaporation of the solvent into the atmosphere. The permittee is required to maintain records to ensure compliance with this rule.

Rule 325 - Crude Oil Production and Separation: This rule applies to equipment used in the production, gathering, storage, processing and separation of crude oil and gas prior to custody transfer. The primary requirements of this rule are under Sections D and E. Section D requires the use of vapor recovery systems on all tanks and vessels, including wastewater tanks, oil/water separators and sumps. Section E requires that all produced gas be controlled at all times, except for wells undergoing routine maintenance. Compliance with Section E is met by directing all produced gas to a sales compressor, injection well or to a flare relief system.

Rule 330 - Surface Coating of Metal Parts and Products: This rule sets standards for many types of coatings applied to metal parts and products. In addition to the ROC standards, this rule sets operating standards for application of the coatings, labeling and recordkeeping. Compliance with this rule is demonstrated through inspections and recordkeeping.

Rule 331 - Fugitive Emissions Inspection and Maintenance: This rule applies to components in liquid and gaseous hydrocarbon service at oil and gas production fields. Ongoing compliance with the provisions of this rule will be assessed via inspection by the operator and District personnel using an organic vapor analyzer and through analysis of operator records. The Morganti Lease does not perform any routine venting of hydrocarbons to the atmosphere. All gases routinely vented are directed to the gas gathering system.

Rule 344 - Sumps, Pits and Well Cellars: Rule 344 requires controls on sumps and pits subject to the rule and an inspection and maintenance plan for well cellars. The permittee has instituted a program to monitor well cellars and pump them out if the thickness of the oil/petroleum products exceeds 2 inches or the cellar is over 50-percent full of any liquid. Compliance is determined through required recordkeeping and District inspection.

Rule 352 - Natural Gas-Fired Fan-Type Central Furnaces and Small Water Heaters: This rule applies to new water heaters rated less than 75,000 Btu/hr and new fan-type central furnaces. It requires the certification of newly installed units.

Rule 353 - Adhesives and Sealants: This rule applies to the use of adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primers. Compliance is based on site inspections.

Rule 505 - Breakdown Conditions: This rule describes the procedures that the permittee must follow when a breakdown condition occurs to any emissions unit associated with the Morganti Lease. A breakdown condition is defined as an unforeseeable failure or malfunction of (1) any air pollution control equipment or related operating equipment that causes a violation of an emission limitation or restriction prescribed in the District Rules and Regulations, or by State law, or (2) any in-stack continuous monitoring equipment, provided such failure or malfunction:

a. Is not the result of neglect or disregard of any air pollution control law or rule or regulation;

b. Is not the result of an intentional or negligent act or omission on the part of the owner or operator;

c. Is not the result of improper maintenance;

d. Does not constitute a nuisance as defined in Section 41700 of the Health and Safety Code;

e. Is not a recurrent breakdown of the same equipment.

Rule 810 - Federal Prevention of Significant Deterioration: This rule incorporates the federal Prevention of Significant Deterioration rule requirements into the District's rules and regulations. Future projects at the facility will be evaluated to determine whether they constitute a new major stationary source or a major modification.

3.5 Compliance History

This section contains a summary of the compliance history for this facility and was obtained from documentation contained in the District's administrative file.

3.5.1 Facility Inspections: There has been one District inspections of this facility since issuance of the previous permit renewal which occurred on February 28, 2024. Multiple enforcement actions were issued as a result of this inspection. These, as well as, two occurring in 2023, are listed below.

3.5.2 Violations: The following enforcement action was issued to this facility since issuance of the previous permit renewal. Compliance for these violations has either been achieved or circumstances are such that compliance cannot be achieved. In both cases, the source is no longer in violation.

NOV NO.	Date Issued	Description
#13596	03/20/2024	Failing to repair a major leak within required Rule 331 timeline.
#13597	03/20/2024	Failure to control emissions of produced gas.
#13599	03/20/2024	Installation of a wastewater tank without an ATC permit.
#13600	03/20/2024	Exceedance of Rule 331 leak threshold for 'other' components.
#13455	07/10/2023	Failure to submit transfer of owner/operator documents.
#13321	05/12/2023	Failure to submit annual 'Out-of-Service' Equipment Compliance Report.

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3.5.2 Variances: During the last three years, the operator has not applied for any variances.

Table 3.1 - Generic Federally-Enforceable District Rules

Generic Requirements	Affected Emission Units	Basis for Applicability
RULE 101: Compliance by Existing Installations	All emission units	Emission of pollutants
RULE 102: Definitions	All emission units	Emission of pollutants
RULE 103: Severability	All emission units	Emission of pollutants
RULE 201: Permits Required	All emission units	Emission of pollutants
RULE 202: Exemptions to Rule 201	Applicable emission units, as listed in form 1302-H of the Part 70 application.	Insignificant activities/emissions, per size/rating/function
RULE 203: Transfer	All emission units	Change of ownership
RULE 204: Applications	All emission units	Addition of new equipment of modification to existing equipment.
RULE 205: Standards for Granting Permits	All emission units	Emission of pollutants
RULE 206: Conditional Approval of Authority to Construct or Permit to Operate	All emission units	Applicability of relevant Rules
RULE 207: Denial of Applications	All emission units	Applicability of relevant Rules
RULE 208: Action on Applications - Time Limits	All emission units. Not applicable to Part 70 permit applications.	Addition of new equipment of modification to existing equipment.
RULE 212: Emission Statements	All emission units	Administrative
RULE 301: Circumvention	All emission units	Any pollutant emission
RULE 302 : Visible Emissions	All emission units	Particulate matter emissions
RULE 303: Nuisance	All emission units	Emissions that can injure, damage or offend.
RULE 304: Particulate matter - Northern Zone	Each PM Source	Emission of PM in effluent gas
RULE 309: Specific Contaminants	All emission units	Combustion contaminant emission
RULE 311: Sulfur Content of Fuel	All combustion units	Use of fuel containing sulfur

Generic Requirements	Affected Emission Units	Basis for Applicability
RULE 317: Organic Solvents	Emission units using solvents	Solvent used in process operations.
RULE 321: Solvent Cleaning Operations	Emission units using solvents	Solvent used in process operations.
RULE 322: Metal Surface Coating Thinner and Reducer	Emission units using solvents	Solvent used in process operations.
RULE 323.I: Architectural Coatings	Paints used in maintenance and surface coating activities	Application of architectural coatings.
RULE 324: Disposal and Evaporation of Solvents	Emission units using solvents	Solvent used in process operations.
RULE 353: Adhesives and Sealants	Emission units using adhesives and solvents.	Adhesives and sealants used in process operations.
RULE 505.A, B1, D: Breakdown Conditions	All emission units	Breakdowns where permit limits are exceeded or rule requirements are not complied with.
RULE 603: Emergency Episode Plans	Stationary sources with PTE greater than 100 tpy	PCEC Orcutt Hill and Casmalia Oil Field is a major source.
REGULATION VIII: New Source Review	All emission units	Addition of new equipment of modification to existing equipment. Applications to generate ERC Certificates.
RULE 810: Federal Prevention of Significant Deterioration	New or modified emission units	Major modifications
RULE 901: New Source Performance Standards (NSPS)	All emission units	Applicability standards are specified in each NSPS.
RULE 1001: National Emission Standards for Hazardous Air Pollutants (NESHAPS)	All emission units	Applicability standards are specified in each NESHAP
REGULATION XIII (RULES 1301-1305): Part 70 Operating Permits	All emission units	This stationary source is a major source
REGULATION XIII (RULES 1302-1305): Part 70 Operating Permits	All emission units	This stationary source is a major source

Table 3.2 - Unit-Specific Federally-Enforceable District Rules

Unit-Specific Requirements	Affected Emission Units	Basis for Applicability
RULE 331: Fugitive Emissions Inspection & Maintenance	All components (valves, flanges, seals, etc.) used to handle oil and gas.	Components emit fugitive ROCs.
RULE 344: Petroleum Wells, Sumps and Cellars	Well cellar	Compliance with the rule provides a 70% reduction in well cellar emissions.
RULE 360: Boilers, Water Heaters, and Process Heaters (0.075 - 2 MMBtu/hr)	Any new small boiler installed at the facility.	New units rated from 75,000 Btu/hr to 2.000 MMBtu/hr

Table 3.3 - Non-Federally-Enforceable District Rules

Requirement	Affected Emission Units	Basis for Applicability
RULE 210: Fees	All emission units	Administrative
RULE 310: Odorous Org. Sulfides	All emission units	Emission of organic sulfides
RULE 352: Natural Gas-Fired Fan-Type Central Furnaces and Small Water Heaters	New water heaters and furnaces	Upon installation
RULES 501-504: Variance Rules	All emission units	Administrative
RULE 505.B2, B3, C, E, F, G: Breakdown Conditions	All emission units	Breakdowns where permit limits are exceeded or rule requirements are not complied with.
RULES 506-519: Variance Rules	All emission units	Administrative

Table 3.4 - Adoption Dates of District Rules Applicable at Issuance of Permit

Rule No.	Rule Name	Adoption Date
Rule 101	Compliance by Existing Installations: Conflicts	June 21, 2012
Rule 102	Definitions	August 25, 2016
Rule 103	Severability	October 23, 1978
Rule 201	Permits Required	June 21, 2012
Rule 202	Exemptions to Rule 201	August 25, 2016
Rule 203	Transfer	April 17, 1997
Rule 204	Applications	April 17, 1997
Rule 205	Standards for Granting Permits	April 17, 1997
Rule 206	Conditional Approval of Authority to Construct or Permit to Operate	October 15, 1991
Rule 208	Action on Applications - Time Limits	April 17, 1997
Rule 212	Emission Statements	October 20, 1992
Rule 301	Circumvention	October 23, 1978
Rule 302	Visible Emissions	June 1981
Rule 303	Nuisance	June 1981
Rule 304	Particulate Matter – Northern Zone	October 23, 1978
Rule 309	Specific Contaminants	October 23, 1978
Rule 310	Odorous Organic Sulfides	October 23, 1978
Rule 311	Sulfur Content of Fuels	October 23, 1978
Rule 317	Organic Solvents	October 23, 1978
Rule 321	Solvent Cleaning Operations	June 12, 2012
Rule 322	Metal Surface Coating Thinner and Reducer	October 23, 1978
Rule 323.I	Architectural Coatings	June 19, 2014
Rule 324	Disposal and Evaporation of Solvents	October 23, 1978
Rule 325	Crude Oil Production and Separation	July 19, 2001
Rule 326	Storage of Reactive Organic Compound Liquids	July 19, 2001
Rule 328	Continuous Emissions Monitoring	October 23, 1978

Rule No.	Rule Name	Adoption Date
Rule 330	Surface Coating of Metal Parts and Products	June 12, 2012
Rule 331	Fugitive Emissions Inspection and Maintenance	December 10, 1991
Rule 333	Control of Emissions from Reciprocating Internal Combustion Engines	June 19, 2008
Rule 342	Boilers, Steam Generators and Process Heaters (5 MMBtu/hr or greater)	June 20, 2019
Rule 344	Petroleum Sumps, Pits and Well Cellars	November 10, 1994
Rule 352	Natural Gas-Fired Fan-Type Central Furnaces and Small Water Heaters	October 20, 2011
Rule 353	Adhesives and Sealants	June 21, 2012
Rule 360	Boilers, Water Heaters, and Process Heaters (0.075 - 2 MMBtu/hr)	March 15, 2018
Rule 361	Boilers, Steam Generators and Process Heaters (Between 2-5 MMBtu/hr)	June 20, 2019
Rule 505	Breakdown Conditions (Section A, B1 and D)	October 23, 1978
Rule 603	Emergency Episode Plans	June 15, 1981
Rule 801	New Source Review	August 25, 2016
Rule 802	Nonattainment Review	August 25, 2016
Rule 803	Prevention of Significant Deterioration	August 25, 2016
Rule 804	Emission Offsets	August 25, 2016
Rule 805	Air Quality Impact and Modeling	August 25, 2016
Rule 806	Emission Reduction Credits	August 25, 2016
Rule 808	New Source Review for Major Sources of Hazardous Air Pollutants	May 20, 1999
Rule 810	Federal Prevention of Significant Deterioration (PSD)	June 20, 2013
Rule 901	New Source Performance Standards (NSPS)	September 20, 2010
Rule 1001	National Emission Standards for Hazardous Air Pollutants (NESHAPS)	October 23, 1993
Rule 1301	General Information	August 25, 2016
Rule 1302	Permit Application	November 9, 1993
Rule 1303	Permits	November 9, 1993

Rule No.	Rule Name	Adoption Date
Rule 1304	Issuance, Renewal, Modification and Reopening	November 9, 1993
Rule 1305	Enforcement	November 9, 1993

4.0 Engineering Analysis

4.1 General

The engineering analyses performed for this permit were limited to the review of:

- → facility process flow diagrams
- → emission factors and calculation methods for each emissions unit
- → emission control equipment (including RACT, BACT, NSPS, NESHAP, MACT)
- → emission source testing, sampling, CEMS, CAM
- → process monitors needed to ensure compliance

Unless noted otherwise, default ROC/THC reactivity profiles from the District's document titled "*VOC/ROC Emission Factors and Reactivities for Common Source Types*" dated July 13, 1998 (ver 1.1) was used to determine non-methane, non-ethane fraction of THC.

4.2 Stationary Combustion Sources

The stationary combustion sources associated with Morganti Lease facility consist of gas-fired piston internal combustion (IC) engines, one gas-fired glycol reboiler and a flare. The IC engine operations are addressed in PTO 8035 and are omitted from any review in this permit. The heater treater and two boilers are out of service but remain on permit.

Gas-fired External Combustion Units: One field gas-fired glycol reboiler rated at 0.10 MMBtu/hour heat input operates at this facility. This unit is exempt from Rule 342 emission standards. The calculation methodology for this unit is:

$$ER = [(EF \times SCFPP \times HHV) \div 10^6]$$

where: ER = emission rate (lb/period)
EF = pollutant specific emission factor (lb/MMBtu)
SCFPP = gas flow rate per operating period (scf/period)
HHV = gas higher heating value (Btu/scf)

The glycol reboiler NO_x emission factor is 0.092 lb/MMBtu based on the District's uncontrolled emission factor for a 0.100 MMBtu/hr unit. The glycol reboiler CO emission factor is 0.0393 lb/MMBtu based on the District's uncontrolled emission factor for a 0.100 MMBtu/hr unit. The ROC emission factor and PM emission factors are based on AP-42, Section 1.4. The glycol reboiler SO_x emission factor is based on mass balance calculations.

Field Gas-fired Flare Unit: A flare, field manufactured and rated at 5.625 MMBtu/hour is used to combust processed waste gases at the facility. The flare is fired by field gas with heat content not exceeding 900 Btu/scf and is unassisted. It is equipped with a continuously burning pilot. Since the flare is rated at less than 15 MMBtu/hour, it is not subject to the emission limitations of Rule 359. However, it is subject to all the operating requirements specified in Rule 359,

except the flare minimization plan implementation. The calculation methodology for the flare unit is:

$$ER = [(EF \times SCFPP \times HHV) \div 10^6]$$

where: ER = emission rate (lb/period)
EF = pollutant specific emission factor (lb/MMBtu)
SCFPP = gas flow rate per operating period (scf/period)
HHV = gas higher heating value (Btu/scf)

The NOx and CO emission factors are based on AP-42, Table 13.5-1. The ROC emission factor is based on the District's 2016 Flare Study. The Sox emission factor is based on mass balance. The sulfur content of the field gas fuel is assumed to be the Rule 311 applicable limit of 796 ppmv S (measured as hydrogen sulfide). The PM emission factors are based on AP-42 Chapter 1.4.

4.3 Fugitive Hydrocarbon Sources

Emissions of reactive organic compounds from piping components (e.g., valves and connections), pumps, compressors and pressure relief devices have been quantified using two methods:

4.3.1 Calculation of Fugitive Hydrocarbon Emissions at Oil and Gas Facilities by the CARB/KVB Method. For fugitive emission sources lacking a detailed component count inventory, the District uses statistical models developed by the CARB/KVB to quantify emissions of fugitive ROC; District Policy and Procedure 6100.060.1996 (*Calculation of Fugitive Hydrocarbon Emissions at Oil and Gas Facilities by the CARB/KVB Method*, July 1996). The CARB/KVB Method uses statistical models based on the facility's gas/oil ratio and the number of active wells to determine emission factors.

4.3.2 Determination of Fugitive Hydrocarbon Emissions at Oil and Gas Facilities Through the Use of Facility Component Counts - Modified for Revised ROC Definition: For sources that have specific component leakpath counts, emissions of reactive organic compounds from piping components such as valves, flanges and connections are computed based on emission factors for component leak path categories listed in District P&P 6100.061 (*Determination of Fugitive Hydrocarbon Emissions at Oil and Gas Facilities Through the Use of Facility Component Counts - Modified for Revised ROC Definition*). Emission factors have been assigned to each component based on component type and service.

An emission control efficiency of 80-percent is credited to all components due to the implementation of a District-approved I&M program for leak detection and repair consistent with Rule 331 requirements. Ongoing compliance is determined in the field by inspection with an organic vapor analyzer and verification of operator records. Permitted fugitive ROC emissions from fugitive components reflect the elimination of ethane from the list of ROCs.

4.4 Tanks

4.4.1 *Tanks*: The Morganti Lease facility operates one (1) 2,000 barrel, steam heated crude oil storage tanks, two (2) 1,000 barrel waste water tanks and one (1) 750 diluent tank. With the exception of the diluent tank, each tank is connected to the vapor recovery unit operating at the Morganti Lease site. The ROC control efficiency of the VRU unit is assumed to be 95 percent. The detailed tank calculations for compliance are performed using the methods presented in USEPA

AP-42, Chapter 7. These results are shown in Attachment 10.2.

4.4.2 *Well Cellars*: Well cellars are used at Morganti Lease for collecting oil spills at various locations such as the well head stuffing boxes and test sites. Fugitive emissions from well cellars are credited a 70 percent control efficiency for maintaining the cellars per the requirements of Rule 344. Emissions from all these devices are estimated based on District P&P 6100.060 (*Calculation of Fugitive Hydrocarbon Emissions at Oil and Gas Facilities by the CARB/KVB Method - Modified for the Revised ROC Definition*). These emissions units are classified as being in secondary service. The calculation methodology is:

$$ER = [(EF \times SAREA \div 24) \times (1 - CE) \times (HPP)]$$

where:	ER =	emission rate (lb./period)
	EF =	ROC emission factor (lb./ft^2-day)
	SAREA =	unit surface area (ft^2)
	CE =	control efficiency
	HPP =	operating hours per time period(hrs./period)

See attachment 10.2 spreadsheet for detailed calculations.

4.5 Other Emission Sources

4.5.1 *Pigging*: Pipeline pigging operations, namely, pig launching, occur at the Morganti Lease. Emissions occur during the depressurization of the launching unit, since a few ounces of back pressure remain in the pig chamber, and ROC is emitted when the chamber is opened to the atmosphere. The APCD has assumed that the remaining pressure in the pig chamber does not exceed 0.5 psig. The calculation per period is:

where:

$$ER = [V_1 \times \rho \times wt\ \% \times EPP]$$

ER =	emission rate (lb./period)
V_1 =	volume of vessel (ft^3)
ρ =	density of vapor at actual conditions (lb/ft^3)
wt % =	weight percent ROC-TOC

EPP = pigging events per time period (events/period)

4.5.2 *Loading Rack*: The grade level loading rack, connected to the VRU, is used to load crude oil into tanker trucks. Controlled ROC emissions from tanker truck crude oil loading are estimated from emission equations and factors listed in USEPA, AP-42, (Section 5). The calculations are shown in Attachment 10.2

4.5.3 *General Solvent Cleaning/Degreasing*: Solvent usage (not used as thinners for surface coating) may occur at the facility as part of normal daily operations. The usage includes cold solvent degreasing. Mass balance emission calculations are used assuming all the solvent used evaporates to the atmosphere.

4.5.4 *Surface Coating*: Surface coating operations typically include normal touch up activities. Entire facility painting programs may also be performed. Emissions are determined based on mass balance calculations assuming all solvents evaporate into the atmosphere. Emissions of PM,

PM_{10}, and $PM_{2.5}$ from paint overspray are not calculated due to the lack of established calculation techniques.

4.5.3 Abrasive Blasting: Abrasive blasting with CARB certified sands may be performed as a preparation step prior to surface coating. The engines used to power the compressor may be electric or diesel-fired. If diesel-fired, permits will be required unless the engine is registered with CARB. Particulate matter is emitted during this process. A general emission factor of 0.01 pound PM per pound of abrasive is used (SCAQMD - Permit Processing Manual, 1989) to estimate emissions of PM, PM_{10} and $PM_{2.5}$ when needed for compliance verifications. A $PM/PM_{10}/PM_{2.5}$ ratio of 1.0 is assumed.

4.6 BACT/NSPS/NESHAP/MACT

To date, this facility has not triggered Best Available Control Technology (BACT), New Source Performance Standards (NSPS) National Emission Standards for Hazardous Air Pollutants (NESHAP) or Maximum Available Control Technology (MACT).

4.8 CEMS/Process Monitoring/CAM

4.8.1 CEMS: There are no CEMS at this facility.

4.8.2 Process Monitoring: In many instances, ongoing compliance beyond a single (snap shot) source test is assessed by the use of process monitoring systems. Examples of these monitors include engine hour meters, fuel usage meters, water injection mass flow meters, flare gas flow meters and hydrogen sulfide analyzers. Once these process monitors are in place, it is important that they be well maintained and calibrated to ensure that the required accuracy and precision of the devices are within specifications. At a minimum, the following process monitors will be required to be calibrated and maintained in good working order:

- Processed Crude Oil Volume Flow Meter(s) at the Storage Tanks and Loading Rack
- Produced Fuel Gas Volume Flow Meter(s) at the Lease inlet(s)
- Boiler, Glycol Regenerator and Flare Fuel Flow Meters

To implement the above calibration and maintenance requirements, a *Process Monitor Calibration and Maintenance Plan* is required. This Plan shall take into consideration manufacturer recommended maintenance and calibration schedules. Where manufacturer guidance is not available, the recommendations of comparable equipment manufacturers and good engineering judgment is to be utilized.

4.8.3 CAM: The Pacific Coast Energy Company - Orcutt Hill and Casmalia Oil Fields Stationary Source is a major source that is subject to USEPA's Compliance Assurance Monitoring (CAM) rule (40 CFR 64). Any emissions unit at the facility with uncontrolled emissions potential exceeding major source emission thresholds (100 tpy) for any pollutant is subject to CAM provisions. It was determined that CAM was not applicable to any equipment units at this facility.

4.9 Source Testing/Sampling

Source testing and sampling are required in order to ensure compliance with permitted emission limits, prohibitory rules, control measures and the assumptions that form the basis for issuing operating permits. The following sampling is required:

Crude Oil: Sampling of the crude oil for TVP and API gravity.

Produced Gas: Sample taken at production separator outlet. Analysis for total sulfur, hydrogen sulfide, composition. Samples to be taken on an *annual* basis. Also, fuel analysis for HHV to be performed *quarterly* with quarterly sampling.

Gaseous Fuel for Flare: Fuel HHV and total S content. Samples to be taken *annually* at the gaseous fuel inlet to the flare pipe.

All sampling and analyses are required to be performed according to APCD approved procedures and methodologies. Typically, the appropriate ASTM methods are acceptable. However, TVP sampling methods for liquids with an API gravity under 20^{O} require specialized procedures. It is important that all sampling and analysis be traceable by chain of custody procedures

4.10 Part 70 Engineering Review: Hazardous Air Pollutant Emissions

Total emissions of hazardous air pollutants (HAP) are computed for each emissions unit. The HAP emission factors and references are listed in Table 5.4-1. Potential HAP emissions from the facility, based on the worst-case operational scenario, are computed and listed in Table 5.4-2. The stationary source HAP emission totals are summarized in Table 5.4-3. The HAP emissions have been included in the Part 70 permit solely for the purpose of any future MACT applicability determination. They do not constitute any emissions or operations limit.

5.0 Emissions

5.1 General

The facility was analyzed to determine all air-related emission sources. Emissions calculations are divided into "permitted" and "exempt" categories. District Rule 202 determines permit exempt equipment. The permitted emissions for each emissions unit is based on the equipment's potential-to-emit (as defined by Rule 102).

Section 5.3 details the permitted emissions for each emissions unit. Section 5.3 details the overall permitted emissions for the facility based on reasonable worst-case scenarios using the potential-to-emit for each emissions unit. Section 5.4 provides the federal potential to emit calculation using the definition of potential to emit used in Rule 1301. Section 5.5 provides the estimated HAP emissions from the facility. Section 5.6 (if applicable) provides the estimated emissions from permit exempt equipment and also serves as the Part 70 list of insignificant emissions. The District uses a computer database to accurately track the emissions from a facility. Attachment 10.4 contains the District's documentation for the information entered into that database.

5.2 Permitted Emission Limits - Emission Units

Each emissions unit associated with the facility was analyzed to determine the potential-to-emit for the following pollutants:

⇒ Nitrogen Oxides (NO_x) [3]
⇒ Reactive Organic Compounds (ROC)
⇒ Carbon Monoxide (CO)

[3] Calculated and reported as nitrogen dioxide (NO_2)

⇒ Sulfur Oxides (SO_x) [4]
⇒ Particulate Matter (PM) [5]
⇒ Particulate Matter smaller than 10 microns (PM_{10})
⇒ Particulate Matter smaller than 2.5 microns ($PM_{2.5}$)

Permitted emissions are calculated for both short term (daily) and long term (annual) time periods. Section 4.0 (Engineering Analysis) provides a general discussion of the basic calculation methodologies and emission factors used. The reference documentation for the specific emission calculations, as well as detailed calculation spreadsheets, may be found in Section 4 and Attachments 10.1 and 10.2 respectively. Table 5.1-1 provides the basic operating characteristics. Table 5.1-2 provides the specific emission factors. Tables 5.1-3 and 5.1-4 show the permitted short-term and permitted long-term emissions for each unit or operation. In the table, the last column indicates whether the emission limits are federally-enforceable. Those emissions limits that are federally-enforceable are indicated by the symbol "FE". Those emissions limits that are District-only enforceable are indicated by the symbol "A".

5.3 Permitted Emission Limits - Facility Totals

The total potential-to-emit for all emission units associated with this facility were analyzed. This analysis assessed the reasonable worst-case operating scenarios for each operating period. The equipment operating in each of the scenarios are presented below. Unless otherwise specified, the operating characteristics defined in Table 5.1-1 for each emission unit are assumed. Table 5.2 shows the total permitted emissions for the facility. *There has been no change to the permitted emission totals since issuance of the previous permit renewal.*

5.4 Part 70: Federal Potential to Emit for the Facility

Table 5.3 lists the federal Part 70 potential to emit. Coating emissions, although exempt from permit requirements, are included in the federal potential to emit calculation. This facility does not belong to one of the categories listed in 40 CFR 70.2, therefore fugitive emissions do not contribute to the federal PTE.

5.5 Part 70: Hazardous Air Pollutant Emissions for the Facility

Hazardous air pollutants (HAP) emission factors, for each type of emissions unit, are listed in Table 5.4-1. Potential HAP emissions, based on the worst-case scenario, are shown in Table 5.4-2.

5.6 Exempt Emission Sources/Part 70 Insignificant Emissions

Equipment/activities exempt pursuant to District Rule 202 include maintenance operations involving surface coating. In addition, *insignificant activities* such as maintenance operations using paints and coatings, contribute to the facility emissions.

[4] Calculated and reported as sulfur dioxide (SO_2)

[5] Calculated and reported as all particulate matter smaller than 100 μm

Table 5.1-1
PCEC Morganti Lease - Pt70 PTO 16213
Operating Equipment Description

			Device Specifications				Usage Data			Maximum Operating Schedule				
Equipment Category	**Description**	**Device ID#**	**Fuel**	**% S**	**Size**	**Units**	**Capacity**	**Units**	**Load**	**hr**	**day**	**qtr**	**year**	**References***
Combustion - External	Glycol Regenerator	002830	FG	0.0796	--	--	0.100	MMBtu/hr	--	1.0	24	2190	8760	A
Combustion - External	Flare	008428	FG	0.0796	--	--	5.625	MMBtu/hr	--	1.0	24	2190	8760	B
Fugitive Components	Valves & fittings	87520	--	--	65	clp's	--	--	--	1.0	24	2190	8760	C
(Gas/Light Liquid Service)	Connectors	87520	--	--	256	clp's	--	--	--	1.0	24	2190	8760	
	Compressors	87520	--	--	1	clp's	--	--	--	1.0	24	2190	8760	
	PSV's	87520	--	--	2	clp's	--	--	--	1.0	24	2190	8760	
Fugitive Components	Valves	87520	--	--	45	clp's	--	--	--	1.0	24	2190	8760	C
(Oil Service)	Connectors	87520	--	--	130	clp's	--	--	--	1.0	24	2190	8760	
	Pump Seals	87520	--	--	3	clp's	--	--	--	1.0	24	2190	8760	
Pigging Equipment	Gas Launcher	100959	--	--	4	cf	0.5	psig	--	1	1	1	4	D
Oil Storage Tanks	Crude, 1000 bbl. tank	387518	--	--	21.5' x 12'	ft.	1000	bbl.	--	1	24	2190	8760	E
	Crude, 2000 bbl. tank	002828	--	--	29.8' x 16'	ft.	2000	bbl.	--	1	24	2190	8760	
	Wash tank, 5,000 bbl.	002827	--	--	37.6' x 24'	ft.	5000	bbl.	--	1	24	2190	8760	
	Wastewater Tank, 1000 bbl. tank	002860	--	--	21.5' x 16'	ft.	1000	bbl.	--	1	24	2190	8760	
	Produced Water Tank, 1000 bbl. tank	114581	--	--	21.5' x 16'	ft.	1000	bbl.	--	1	24	2190	8760	
	Diluent Tank , 750 bbl.	002826	--	--	15.5' x 24'	ft.	750	bbl.	--	1	24	2190	8760	
Sumps/Cellars/Pits	Sump, 5' diameter	100963	--	--	20	ft2	--	--	--	1.0	24	2190	8760	F
	Sump, 5' diameter	100963	--	--	20	ft2	--	--	--	1.0	24	720	720	
	Loading Rack Sump	100962	--	--	10	ft2	--	--	--	1.0	24	2190	8760	
	Emergency pit-tert.	002831	--	--	2608	ft2	--	--	--	1.0	24	720	720	
	Well cellars- 30 in no.	002862	--	--	1080	ft2	--	--	--	1.0	24	2190	8760	
Loading Racks	Crude oil Loading Rack	109722	--	--	6.72	1000 gal./hr	--	--	--	1.0	24	456	1825	G
Fugitive Components	Valves & fittings	002864	--	--	24.00	well units	--	--	--	1.0	24	2190	8760	C
(Well Operations)	Wellheads	002864	--	--	24.00	well units	--	--	0.00	1.0	24	2190	8760	
	Compressors	002864	--	--	24.00	well units	--	--	--	1.0	24	2190	8760	

* -- Please refer to Attachment 10.1 for References A - H

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Table 5.1-2
PCEC Morganti Lease - Pt70 PTO 16213
Equipment Emission Factors

Equipment Category	Description	Device ID#	NOx	ROC	CO	SOx	PM	PM10	Units	References*
										A
Combustion - External	Glycol Regenerator	002830	0.091	0.005	0.039	0.122	0.007	0.007	lb/MMBtu	
Combustion - External	Flare	008428	0.068	0.200	0.370	0.119	0.020	0.020	lb/MMBtu	B
Fugitive Components	Valves & fittings	87520	--	0.0183	--	--	--	--	lb/day-clp	C
(Gas/Light Liquid Service)	Connectors	87520	--	0.0043	--	--	--	--	lb/day-clp	
	Compressors	87520	--	0.1329	--	--	--	--	lb/day-clp	
	PSV's	87520	--	0.4135	--	--	--	--	lb/day-clp	
		87520								
Fugitive Components	Valves	87520	--	0.0005	--	--	--	--	lb/day-clp	C
(Oil Service)	Connectors	87520	--	0.0002	--	--	--	--	lb/day-clp	
Pigging Equipment	Gas Launcher	100959	--	0.019	--	--	--	--	lb/cf-event	D
Oil Storage Tanks	Crude, 2000 bbl. tank	387518	--	**Calc's are**	--	--	--	--	**AP-42, Ch.7**	E
	Crude, 2000 bbl. tank	002828	--	**based on**	--	--	--	--	**Eqn. Units** --	
	Wash tank, 5,000 bbl.	002827	--	**AP42,Ch.7**	--	--	--	--	**multiple para-**	
	Wastewater, 1000 bbl. tank	002860	--	**equations**	--	--	--	--	**meters used**	
	Wastewater, 1000 bbl. tank	114581	--	--	--	--	--	--	--	
	Diluent , 750 bbl. Tank	002826	--	--	--	--	--	--	--	
Sumps/Cellars/Pits	Sump, 5' diameter	100963	--	0.013	--	--	--	--	lb/ft2-day	F
	Sump, 5' diameter	100963	--	0.013	--	--	--	--	lb/ft2-day	
	Loading Rack Sump	100962	--	0.013	--	--	--	--	lb/ft2-day	
	Emergency pit-tert.	002831	--	0.006	--	--	--	--	lb/ft2-day	
	Well cellars- 30 in no.	002862	--	0.028	--	--	--	--	lb/ft2-day	
Loading Racks	Crude oil Loading Rack	109722	--	1.635	--	--	--	--	lbs/1000gal	G
Fugitive Components	Valves & fittings	002864	--	0.561	--	--	--	--	lb/day-well	C
(Well Operations)	Wellheads	002864	--	0.002	--	--	--	--	lb/day-well	
	Compressors	002864	--	0.014	--	--	--	--	lb/day-well	

* -- Please refer to Attachment 10.1 for References A - H

Table 5.1-3
PCEC Morganti Lease - Pt70 PTO 16213
Daily Emissions

Equipment Category	Description	Device ID#	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Combustion - External	Glycol Regenerator	002830	0.22	0.01	0.09	0.29	0.02	0.02
Combustion - External	Flare	008428	9.18	27.00	49.95	16.08	2.70	2.70
Fugitive Components	Valves & fittings	87520	--	1.19	--	--	--	--
(Gas/Light Liquid Service)	Connectors	87520	--	1.10	--	--	--	--
	Compressors	87520	--	0.13	--	--	--	--
	PSV's	87520	--	0.83	--	--	--	--
Fugitive Components	Valves	87520	--	0.02	--	--	--	--
(Oil Service)	Connectors	87520	--	0.03	--	--	--	--
Pigging Equipment	Gas Launcher	100959	--	0.07	--	--	--	--
Oil Storage Tanks	Crude, 1000 bbl. tank	387518	--	0.21	--	--	--	--
	Crude, 2000 bbl. tank	002828	--	0.33	--	--	--	--
	Wash tank, 5,000 bbl.	002827	--	0.00	--	--	--	--
	Wastewater, 1000 bbl. tank	002860	--	0.23	--	--	--	--
	Wastewater, 1000 bbl. tank	114581	--	0.23	--	--	--	--
	Diluent , 750 bbl. Tank	002826	--	3.86	--	--	--	--
Sumps/Cellars/Pits	Sump, 5' diameter	100963	--	0.25	--	--	--	--
	Sump, 5' diameter	100963	--	0.25	--	--	--	--
	Loading Rack Sump	100962	--	0.13	--	--	--	--
	Emergency pit-tert.	002831	--	15.13	--	--	--	--
	Well cellars- 30 in no.	002862	--	21.68	--	--	--	--
Loading Racks	Crude oil Loading Rack	109722	--	3.70	--	--	--	--
Fugitive Components	Valves & fittings	002864	--	13.47	--	--	--	--
(Well Operations)	Wellheads	002864	--	0.05	--	--	--	--
	Compressors	002864	--	0.33	--	--	--	--

Table 5.1-4
PCEC Morganti Lease - Pt70 PTO 16213
Annual Emissions

Equipment Category	Description	Device ID#	NOx TPY	ROC TPY	CO TPY	SOx TPY	PM TPY	PM10 TPY
Combustion - External	Glycol Regenerator	002830	0.04	0.00	0.02	0.05	0.00	0.00
Combustion - External	Flare	008428	1.68	4.93	9.12	2.93	0.49	0.49
Fugitive Components	Valves & fittings	87520	--	0.22	--	--	--	--
(Gas/Light Liquid Service)	Connectors	87520	--	0.20	--	--	--	--
	Compressors	87520	--	0.02	--	--	--	--
	PSV's	87520	--	0.15	--	--	--	--
Fugitive Components	Valves	87520	--	0.00	--	--	--	--
(Oil Service)	Connectors	87520	--	0.00	--	--	--	--
Pigging Equipment	Gas Launcher	100959	--	0.01	--	--	--	--
Oil Storage Tanks	Crude, 2000 bbl. tank	387518	--	0.04	--	--	--	--
	Crude, 2000 bbl. tank	002828	--	0.06	--	--	--	--
	Wash tank, 5,000 bbl.	002827	--	0.00	--	--	--	--
	Wastewater, 1000 bbl. tank	002860	--	0.04	--	--	--	--
	Wastewater, 1000 bbl. tank	114581	--	0.04	--	--	--	--
	Diluent , 750 bbl. Tank	002826	--	0.70	--	--	--	--
Sumps/Cellars/Pits	Sump, 5' diameter	100963	--	0.05	--	--	--	--
	Sump, 5' diameter	100963	--	0.05	--	--	--	--
	Loading Rack Sump	100962	--	0.02	--	--	--	--
	Emergency pit-tert.	002831	--	2.76	--	--	--	--
	Well cellars- 30 in no.	002862	--	3.96	--	--	--	--
Loading Racks	Crude oil Loading Rack	109722	--	0.14	--	--	--	--
Fugitive Components	Valves & fittings	002864	--	2.46	--	--	--	--
(Well Operations)	Wellheads	002864	--	0.01	--	--	--	--
	Compressors	002864	--	0.06	--	--	--	--
Solvent Usage	Solvent Process Operations	110346	--	0.10	--	--	--	--

Table 5.2
PCEC Morganti Lease - Pt70 PTO 16213
Total Permitted Facility Emissions

A. DAILY (lb/day)

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Combustion - External	9.40	27.01	50.04	16.37	2.72	2.72
Fugitive Components	--	3.30	--	--	--	--
Pigging	--	0.07	--	--	--	--
Oil Storage Tanks	--	4.86	--	--	--	--
Sumps/Cellars/Pits	--	37.43	--	--	--	--
Loading Racks	--	3.70	--	--	--	--
Fugitive Emissions-wells		13.84				
	9.4	90.2	50.0	16.4	2.7	2.7

B. ANNUAL (tpy)

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Combustion - External	1.72	4.93	9.13	2.99	0.50	0.50
Fugitive Components	--	0.60	--	--	--	--
Pigging	--	0.01	--	--	--	--
Oil Storage Tanks	--	0.89	--	--	--	--
Sumps/Cellars/Pits	--	6.83	--	--	--	--
Loading Racks	--	0.14	--	--	--	--
Fugitive Emissions-wells		2.53				
Solvents		0.10				
	1.72	15.93	9.13	2.99	0.50	0.50

Table 5.3
PCEC Morganti Lease - Pt70 PTO 16213
Federal Potential to Emit

A. PEAK Daily (lb/day)

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Combustion - External	9.40	27.01	50.04	16.37	2.72	2.72
Oil Storage Tanks		4.86				
	9.40	31.87	50.04	16.37	2.72	2.72

D. PEAK ANNUAL (tpy)

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Combustion - External	5.60	2.29	12.41	8.95	0.50	0.50
Oil Storage Tanks		2.15				
	5.60	4.44	12.41	8.95	0.50	0.50

Table 5.4-1
Orcutt Hill and Casmalia Oil Fields: Morganti Lease - Part 70 PTO 16213
Equipment Hazardous Air Pollutant Factors

Equipment Category	Description	Dev No	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium	Acetaldehyde	Acrolein	Benzene	Ethyl Benzene	Formaldehyde	n-Hexane	PAHs	Toluene	2,2,4-Trimethylpentane	Xylenes	Units	References
Combustion - External	Glycol Regenerator	002830	2.0E-04	1.2E-05	1.1E-03	1.4E-03	8.4E-05	5.0E-04	3.8E-04	2.6E-04	2.1E-03	2.4E-05	2.3E-03	0.0043	0.0027	0.0080	0.0095	0.017	0.0063	0.0004	0.0366	--	0.0272	lb/MMcf	A, B[1]
Combustion - External	Flare	008428	2.0E-04	1.2E-05	1.1E-03	1.4E-03	8.4E-05	5.0E-04	3.8E-04	2.6E-04	2.1E-03	2.4E-05	2.3E-03	0.043	0.01	0.159	1.444	1.169	0.029	0.014	0.058	--	0.029	lb/MMcf	A, B[1]
Fugitive Components	Valves & fittings	387520	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0032	--	--	0.1677	--	--	0.1484	--	lb/lb-ROC	C[2]
(Gas/Light Liquid Service)	Connectors	387520	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0032	--	--	0.1677	--	--	0.1484	--	lb/lb-ROC	C[2]
	Compressors	387520	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0032	--	--	0.1677	--	--	0.1484	--	lb/lb-ROC	C[2]
	PSV's	387520	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0032	--	--	0.1677	--	--	0.1484	--	lb/lb-ROC	C[2]
Fugitive Components	Valves	387520	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0018	--	--	0.1768	--	--	0.1554	--	lb/lb-ROC	D[3]
(Oil Service)	Connectors	387520	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0018	--	--	0.1768	--	--	0.1554	--	lb/lb-ROC	D[3]
Pigging Equipment	Gas Launcher	100959	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0032	--	--	0.1677	--	--	0.1484	--	lb/lb-ROC	C[2]
Oil Storage Tanks	Crude, 2000 bbl. tank	387518	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0271	--	--	0.0531	--	0.0158	0.0045	--	lb/lb-ROC	E[4]
	Wastewater, 1000 bbl. tank	002860	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0264	--	--	0.0528	--	0.0165	0.0050	--	lb/lb-ROC	F[5]
	Wastewater, 1000 bbl. tank	114581	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0264	--	--	0.0528	--	0.0165	0.0050	--	lb/lb-ROC	F[5]
	Diluent , 750 bbl. Tank	002826	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0271	--	--	0.0531	--	0.0158	0.0045	--	lb/lb-ROC	E[4]
Sumps/Cellars/Pits	Sump, 5' diameter	100963	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0264	--	--	0.0528	--	0.0165	0.0050	--	lb/lb-ROC	F[5]
	Sump, 5' diameter	100963	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0264	--	--	0.0528	--	0.0165	0.0050	--	lb/lb-ROC	F[5]
	Loading Rack Sump	100962	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0264	--	--	0.0528	--	0.0165	0.0050	--	lb/lb-ROC	F[5]
	Emergency pit-tert.	002831	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0264	--	--	0.0528	--	0.0165	0.0050	--	lb/lb-ROC	F[5]
	Well cellars- 30 in no.	002862	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0264	--	--	0.0528	--	0.0165	0.0050	--	lb/lb-ROC	F[5]
Loading Racks	Crude oil Loading Rack	109722	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0011	--	--	0.1119	--	--	0.0983	--	lb/lb-ROC	D[4]
Fugitive Components	Valves & fittings	002864	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0026	--	--	0.2532	--	--	0.2225	--	lb/lb-ROC	D[6]
(Well Operations)	Wellheads	002864	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0264	--	--	0.0528	--	0.0165	0.0050	--	lb/lb-ROC	F[5]
	Compressors	002864	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0038	--	--	0.3779	--	--	0.3321	--	lb/lb-ROC	D[7]
Solvent Usage	Solvent Process Operations	110346	--	--	--	--	--	--	--	--	--	--	--	--	--	0.05	--	--	--	--	0.05	--	0.05	lb/lb-ROC	G

References:
A - Ventura County Air Pollution Control District. May 2001. AB 2588 Combustion Emission Factors.Natural Gas Fired External Combustion Equipment Table.
B - USEPA. July 1998. AP-42 Chapter 1.4.Table 1.4-4: Emission Factors for Metals from Natural Gas Combustion.
C - California Air Resources Board. August 1991. Identification of Volatile Organic Compound Species Profiles. Profile #757: Oil & Gas Production Fugitives – Gas Service.
D - California Air Resources Board. August 1991. Identification of Volatile Organic Compound Species Profiles. Profile #756: Oil & Gas Production Fugitives – Liquid Service.
E - California Air Resources Board. August 1991. Identification of Volatile Organic Compound Species Profiles. Profile #297: Crude Oil Evaporation – Vapor Composite from Fixed Roof Tanks.
F - California Air Resources Board. August 1991. Identification of Volatile Organic Compound Species Profiles. Profile #532: Oil & Gas Extraction – Well Heads & Cellars/Oil & Water Separators.
G - Santa Barbara County APCD: For HAP calculations, solvents are assumed to contain 5% benzene, 5% toluene and 5% xylenes.

Notes:
1. The lead emission factor is from AP-42 Table 1.4-2: Emission Factors for Criteria Pollutants and Greenhouse Gases from Natural Gas Combustion.
2. The emission factors, originally in units of lb/lb-TOC, were converted to lb/lb-ROC using an ROC/TOC fraction of 0.31 from Table 2 of the District's P&P 6100.061.
3. The emission factors, originally in units of lb/lb-TOC, were converted to lb/lb-ROC using an ROC/TOC fraction of 0.56 from Table 2 of the District's P&P 6100.061.
4. The emission factors, originally in units of lb/lb-TOC, were converted to lb/lb-ROC using the District's default ROC/TOC fraction of 0.885 for crude oil.
5. The emission factors, originally in units of lb/lb-TOC, were converted to lb/lb-ROC using an ROC/TOC fraction of 0.606 from Table 3.2.3 of the District's P&P 6100.060.
6. The emission factors, originally in units of lb/lb-TOC, were converted to lb/lb-ROC using an ROC/TOC fraction of 0.391 from Table 3.2.3 of the District's P&P 6100.060.
7. The emission factors, originally in units of lb/lb-TOC, were converted to lb/lb-ROC using an ROC/TOC fraction of 0.262 from Table 3.2.3 of the District's P&P 6100.060.

Table 5.4-2
Orcutt Hill and Casmalia Oil Fields: Morganti Lease - Part 70 PTO 16213
Annual Hazardous Air Pollution Emissions (TPY)

Equipment Category	Description	Dev No	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium	Acetaldehyde	Acrolein	Benzene	Ethyl Benzene	Formaldehyde	n-Hexane	PAHs	Toluene	2,2,4-Trimethylpentane	Xylenes
Combustion - External	Glycol Regenerator[1]	002830	8.34E-08	5.01E-09	4.59E-07	5.84E-07	3.50E-08	2.09E-07	1.59E-07	1.08E-07	8.76E-07	1.00E-08	9.59E-07	1.79E-06	1.13E-06	3.34E-06	3.96E-06	7.09E-06	2.63E-06	1.67E-07	1.53E-05	--	1.13E-05
Combustion - External	Flare[1]	008428	4.69E-06	2.82E-07	2.58E-05	3.29E-05	1.97E-06	1.17E-05	8.92E-06	6.10E-06	4.93E-05	5.63E-07	5.40E-05	1.01E-03	2.35E-04	3.73E-03	3.39E-02	2.74E-02	6.80E-04	3.29E-04	1.36E-03	--	6.80E-04
Fugitive Components	Valves & fittings	387520	--	--	--	--	--	--	--	--	--	--	--	--	--	7.00E-04	--	--	3.64E-02	--	--	3.22E-02	--
(Gas/Light Liquid Service)	Connectors	387520	--	--	--	--	--	--	--	--	--	--	--	--	--	6.48E-04	--	--	3.37E-02	--	--	2.98E-02	--
	Compressors	387520	--	--	--	--	--	--	--	--	--	--	--	--	--	7.82E-05	--	--	4.07E-03	--	--	3.60E-03	--
	PSV's	387520	--	--	--	--	--	--	--	--	--	--	--	--	--	4.87E-04	--	--	2.53E-02	--	--	2.24E-02	--
Fugitive Components	Valves	387520	--	--	--	--	--	--	--	--	--	--	--	--	--	7.33E-06	--	--	7.26E-04	--	--	6.38E-04	--
(Oil Service)	Connectors	387520	--	--	--	--	--	--	--	--	--	--	--	--	--	8.47E-06	--	--	8.39E-04	--	--	7.37E-04	--
Pigging Equipment	Gas Launcher	100959	--	--	--	--	--	--	--	--	--	--	--	--	--	4.38E-05	--	--	2.28E-03	--	--	2.01E-03	--
Oil Storage Tanks	Crude, 2000 bbl. tank	387518	--	--	--	--	--	--	--	--	--	--	--	--	--	1.04E-03	--	--	2.04E-03	--	6.06E-04	1.73E-04	--
	Wastewater, 1000 bbl. tank	002860	--	--	--	--	--	--	--	--	--	--	--	--	--	1.11E-03	--	--	2.22E-03	--	6.93E-04	2.08E-04	--
	Wastewater, 1000 bbl. tank	114581	--	--	--	--	--	--	--	--	--	--	--	--	--	1.11E-03	--	--	2.22E-03	--	6.93E-04	2.08E-04	--
	Diluent , 750 bbl. Tank	002826	--	--	--	--	--	--	--	--	--	--	--	--	--	1.91E-02	--	--	3.74E-02	--	1.11E-02	3.18E-03	--
Sumps/Cellars/Pits	Sump, 5' diameter	100963	--	--	--	--	--	--	--	--	--	--	--	--	--	1.19E-03	--	--	2.38E-03	--	7.45E-04	2.24E-04	--
	Sump, 5' diameter	100963	--	--	--	--	--	--	--	--	--	--	--	--	--	1.19E-03	--	--	2.38E-03	--	7.45E-04	2.24E-04	--
	Loading Rack Sump	100962	--	--	--	--	--	--	--	--	--	--	--	--	--	6.07E-04	--	--	1.21E-03	--	3.79E-04	1.14E-04	--
	Emergency pit-tert.	002831	--	--	--	--	--	--	--	--	--	--	--	--	--	7.29E-02	--	--	1.46E-01	--	4.56E-02	1.37E-02	--
	Well cellars- 30 in no.	002862	--	--	--	--	--	--	--	--	--	--	--	--	--	1.04E-01	--	--	2.09E-01	--	6.53E-02	1.96E-02	--
Loading Racks	Crude oil Loading Rack	109722	--	--	--	--	--	--	--	--	--	--	--	--	--	1.58E-04	--	--	1.57E-02	--	--	1.38E-02	--
Fugitive Components	Valves & fittings	002864	--	--	--	--	--	--	--	--	--	--	--	--	--	6.29E-03	--	--	6.22E-01	--	--	5.47E-01	--
(Well Operations)	Wellheads	002864	--	--	--	--	--	--	--	--	--	--	--	--	--	2.20E-04	--	--	4.39E-04	--	1.37E-04	4.12E-05	--
	Compressors	002864	--	--	--	--	--	--	--	--	--	--	--	--	--	2.27E-04	--	--	2.25E-02	--	--	1.98E-02	--
Solvent Usage	Solvent Process Operations	110346	--	--	--	--	--	--	--	--	--	--	--	--	--	5.00E-03	--	--	--	--	5.00E-03	--	5.00E-03
	Total HAPs (TPY):		**4.78E-06**	**2.87E-07**	**2.63E-05**	**3.34E-05**	**2.01E-06**	**1.19E-05**	**9.07E-06**	**6.21E-06**	**5.02E-05**	**5.73E-07**	**5.49E-05**	**1.01E-03**	**2.36E-04**	**2.20E-01**	**3.39E-02**	**2.74E-02**	**1.17E+00**	**3.29E-04**	**1.32E-01**	**7.09E-01**	**5.69E-03**

Notes:
1. Emissions were calculated assuming an HHV of 1,050 Btu/cf.
2. These are estimates only, and are not intended to represent emission limits.
3. Based on CAAA, Section 112 (n) (4) stipulations, the HAP emissions listed above can not be aggregated at the source for any purpose, including determination of HAP major source status for MACT applicability.

Table 5.4-3
Orcutt Hill and Casmalia Oil Fields
Stationary Source Hazardous Air Pollutant Emissions (TPY)

Facility	Permit #	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Lead	Manganese	Mercury	Nickel	Selenium	Vanadium	Acetaldehyde	Acrolein	Benzene	Biphenyl	1,3-Butadiene	Carbon Tetrachloride	Chlorobenzene	Chloroform	1,3-Dichloropropene	Ethylbenzene	Ethylene Dichloride	Formaldehyde	n-Hexane	Hydrochloric Acid	Methanol	Methylene Chloride	PAHs	Phenol	Propylene	Styrene	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	Toluene	2,2,4-Trimethylpentane	Vinyl Chloride	Xylenes	Total: all HAPs
1517 - Careaga Lease	**PTO 16633 (Part I non-thermal)**	1.18E-06	3.75E-09	1.39E-06	8.56E-07	2.63E-08	5.95E-06	2.28E-06	1.48E-06	3.38E-06	1.54E-06	7.19E-07	5.62E-04	2.68E-05	4.15E-01	--	1.52E-04	--	1.39E-07	--	--	4.59E-04	--	1.57E-03	8.12E-01	1.30E-04	--	--	4.34E-05	--	--	--	--	--	--	2.58E-03	1.52E-03	--	3.86E-05	**1.74E+00**
1904 - Orcutt Hill Field (MVFF)	**PTO 15256-R2**	--	--	--	--	--	--	--	--	--	--	--	2.79E-04	--	9.98E-04	--	--	--	--	--	1.95E-04	--	--	--	2.03E-05	--	1.55E-06	--	--	--	--	--	--	1.13E-03	--	--	9.37E-04	**3.56E-03**
3206 - Cat Coast Lease (Orcutt Hill)	**PTO 8226-R12**	--	--	--	--	--	--	--	--	--	--	--	4.54E-02	--	5.41E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.51E-02	2.75E-02	--	4.47E-02	**1.42E-01**
3212 - Arellanes Lease	**PTO 16212**	--	--	--	--	--	--	--	--	--	--	--	4.64E-02	--	2.94E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.95E-02	1.99E-01	--	5.00E-03	**5.71E-01**
3303 - Morganti Lease	**PTO 16213**	4.78E-06	2.87E-07	2.63E-05	3.34E-05	2.01E-06	1.19E-05	9.07E-06	6.21E-06	5.02E-05	5.73E-07	5.49E-05	1.01E-03	2.36E-04	2.20E-01	--	--	--	--	--	3.39E-02	--	2.74E-02	1.17E+00	--	--	--	3.29E-04	--	--	--	--	--	--	1.32E-01	7.09E-01	--	5.69E-03	**2.36E+00**
3304 - Muscio Lease	**PTO 16214**	--	--	--	--	--	--	--	--	--	--	--	1.54E-02	--	7.34E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.11E-02	4.91E-02	--	5.00E-03	**1.54E-01**
3313 - Fox Lease	**PTO 8514-R12**	--	--	--	--	--	--	--	--	--	--	--	3.03E-03	--	2.50E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.00E-04	1.47E-01	--	5.00E-04	**4.01E-01**
3314 - Dome Lease	**PTO 9000-R10**	--	--	--	--	--	--	--	--	--	--	--	2.88E-02	--	4.24E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.58E-02	2.20E-01	--	5.00E-04	**6.89E-01**
3315 - Escolle Lease	**PTO 16207**	8.34E-07	5.01E-08	4.59E-06	5.84E-06	3.50E-07	2.09E-06	1.59E-06	1.08E-06	8.76E-06	1.00E-07	9.59E-06	1.79E-05	1.13E-05	8.20E-02	--	--	--	--	--	3.96E-05	--	7.09E-05	7.79E-01	--	--	--	1.67E-06	--	--	--	--	--	--	4.88E-02	5.75E-01	--	5.11E-03	**1.49E+00**
3316 - Folsom Lease	**PTO 9026-R10**	--	--	--	--	--	--	--	--	--	--	--	3.43E-02	--	4.96E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.89E-02	2.62E-01	--	5.00E-04	**8.12E-01**
3318 - Graciosa Lease	**PTO 9028-R10**	--	--	--	--	--	--	--	--	--	--	--	6.65E-03	--	1.33E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.56E-03	7.35E-02	--	5.00E-04	**2.18E-01**
3319 - Hartnell Lease	**PTO 9029-R10**	--	--	--	--	--	--	--	--	--	--	--	3.30E-02	--	6.53E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.68E-02	3.69E-01	--	5.00E-04	**1.07E+00**
3320 - Hobbs Lease	**PTO 9027-R10**	--	--	--	--	--	--	--	--	--	--	--	3.37E-02	--	4.34E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.89E-02	2.26E-01	--	5.00E-04	**7.13E-01**
3321 - Newlove Lease	**PTO 8240-R12 (Part I non-thermal)**	--	--	--	--	--	--	--	--	--	--	--	2.39E-01	--	3.11E+00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.17E-01	2.46E+00	--	5.00E-04	**5.93E+00**
3322 - Pinal Lease	**PTO 8503-R11**	--	--	--	--	--	--	--	--	--	--	--	7.90E-02	--	7.24E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.50E-02	4.51E-01	--	5.00E-04	**1.30E+00**
3323 - Rice Ranch Lease (Orcutt Hill)	**PTO 9035-R10**	--	--	--	--	--	--	--	--	--	--	--	1.13E-03	--	6.28E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.00E-04	3.68E-02	--	5.00E-04	**1.02E-01**
3324 - Squires Lease	**PTO 8223-R12**	--	--	--	--	--	--	--	--	--	--	--	9.68E-02	--	9.87E-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.56E-02	4.97E-01	--	5.00E-04	**1.64E+00**
3495 - Getty Hobbs Lease (Orcutt Hill)	**PTO 9031-R10**	--	--	--	--	--	--	--	--	--	--	--	6.03E-03	--	7.26E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.56E-03	3.77E-02	--	5.00E-04	**1.20E-01**
3948 - Righetti Lease	**PTO 16215**	--	--	--	--	--	--	--	--	--	--	--	1.54E-02	--	7.34E-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.11E-02	4.91E-02	--	5.00E-03	**1.54E-01**
4104 - Orcutt Hill Compressor Plant	**PTO 8174-R10**	4.17E-07	2.50E-08	2.29E-06	2.92E-06	1.75E-07	--	--	--	7.93E-07	5.42E-07	4.38E-06	5.01E-08	--	8.97E-06	5.63E-06	2.36E-02	--	--	--	--	--	--	3.55E-05	4.48E-01	--	--	--	1.46E-06	--	--	--	--	--	5.76E-04	--	--	5.57E-04	**4.73E-01**
4214 - Orcutt Hill IC Engines	**PTO 8039-R12**	1.75E-04	--	1.64E-04	6.57E-05	--	9.09E-04	3.38E-04	2.19E-04	4.27E-04	2.41E-04	--	2.85E-01	1.92E-01	1.32E-01	2.17E-06	7.06E-02	1.27E-03	9.48E-04	9.84E-04	9.12E-04	2.99E-03	1.53E-03	1.65E+00	3.19E-03	2.04E-02	2.15E-01	2.99E-03	9.80E-02	2.32E-05	--	8.62E-04	1.81E-03	1.10E-03	5.11E-02	4.65E-04	5.16E-04	1.84E-02	**2.76E+00**
4216 - Casmalia IC Engines	**PTO 16216**	--	--	--	--	--	--	--	--	--	--	--	1.83E-02	1.72E-02	1.04E-02	--	4.34E-03	1.16E-04	8.45E-05	8.98E-05	8.32E-05	1.63E-04	1.40E-04	1.34E-01	--	--	2.01E-02	2.70E-04	1.56E-03	--	--	7.80E-05	1.66E-04	1.00E-04	3.66E-03	--	4.70E-05	1.28E-03	**2.12E-01**
4501 - N.R. Bonelli Lease (Casmalia)	**PTO 16217**	--	--	--	--	--	--	--	--	--	--	--	--	--	3.61E-02	--	--	--	--	--	--	--	--	--	2.20E-01	--	--	--	--	--	--	--	--	2.34E-02	1.47E-01	--	5.00E-03	**4.32E-01**
10482 - Orcutt Hill - Steam Generators	**PTO 11405-R6**	1.92E-05	1.15E-06	1.06E-04	1.34E-04	8.06E-06	--	3.65E-05	2.49E-05	2.01E-04	2.30E-06	--	2.97E-04	2.59E-04	2.49E-03	--	--	--	--	--	6.62E-04	--	1.18E-03	6.99E-02	--	--	--	6.72E-05	--	--	--	--	--	--	3.04E-03	6.19E-02	--	2.39E-03	**1.43E-01**
11593 - Escolle Lease - Amrich	**PTO 16208**	1.28E-06	7.66E-08	7.03E-06	8.94E-06	5.36E-07	3.19E-06	2.43E-06	1.66E-06	1.34E-05	1.53E-07	1.47E-05	2.75E-04	6.39E-05	2.32E-02	--	--	--	--	--	9.22E-03	--	7.47E-03	2.32E-01	--	--	--	8.94E-05	--	--	--	--	--	--	1.37E-02	1.84E-01	--	5.11E-03	**4.75E-01**
	Total Stationary Source - By Pollutant	**2.03E-04**	**1.59E-06**	**3.11E-04**	**2.52E-04**	**1.12E-05**	**9.32E-04**	**3.92E-04**	**2.55E-04**	**7.69E-04**	**2.49E-04**	**7.99E-05**	**3.06E-01**	**2.10E-01**	**6.12E+00**	**2.17E-06**	**7.51E-02**	**1.39E-03**	**1.03E-03**	**1.07E-03**	**9.95E-04**	**4.76E-02**	**1.67E-03**	**1.82E+00**	**1.22E+01**	**2.05E-02**	**2.35E-01**	**3.23E-03**	**1.00E-01**	**2.32E-05**	**1.55E-06**	**9.40E-04**	**1.97E-03**	**1.20E-03**	**5.39E+00**	**7.18E+00**	**5.63E-04**	**4.54E+00**	**3.82E+01**

Notes:
1. These are estimates only, and are not intended to represent emission limits.
2. Based on CAAA, Section 112 (n) (4) stipulations, the HAP emissions listed above can not be aggregated at the source for any purpose, including determination of HAP major source status for MACT applicability.

6.0 Air Quality Impact Analyses

6.1 Modeling

Air quality modeling has not been required for this stationary source.

6.2 Increments

An air quality increment analysis has not been required for this stationary source.

6.3 Monitoring

Air quality monitoring is not required for this stationary source.

6.4 Health Risk Assessment

The Orcutt Hill and Casmalia Oil Fields Stationary Source is subject to the Air Toxics "Hot Spots" Program (AB 2588). The entire stationary source is being assessed under AB 2588 to determine the health risk for inventory year 2024. The Air Toxics Emission Inventory Plan (ATEIP) is currently under District review.

7.0 CAP Consistency, Offset Requirements and ERCs

7.1 General

Santa Barbara County has not attained the state ozone or PM_{10} air quality standards. Therefore, emissions from all emission units at the stationary source and its constituent facilities must be consistent with the provisions of the USEPA and State approved Clean Air Plans (CAP) and must not interfere with progress toward attainment of federal and state ambient air quality standards. Under District regulations, any modifications at the source that result in an emission increase of any nonattainment pollutant exceeding 25 lbs/day must apply BACT (NAR). Increases above offset thresholds will trigger offsets at the source or elsewhere so that there is a net air quality benefit for Santa Barbara County. These offset threshold levels are 240 lbs/day for all attainment pollutants and precursors (except carbon monoxide and $PM_{2.5}$) and 25 tons/year for all non-attainment pollutants and precursors (except carbon monoxide and $PM_{2.5}$).

7.2 Clean Air Plan

The 2007 Clean Air Plan, adopted by the District Board on August 16, 2007, addressed both federal and state requirements, serving as the maintenance plan for the federal eight-hour ozone standard and as the state triennial update required by the Health and Safety Code to demonstrate how the District will expedite attainment of the state eight-hour ozone standard. The plan was developed for Santa Barbara County as required by both the 1998 California Clean Air Act and the 1990 Federal Clean Air Act Amendments.

December 2022 the District Board adopted the 2022 Ozone Plan which satisfies all state triennial planning requirements.

7.3 Offset Requirements

The Pacific Coast Energy Company - Orcutt Hill and Casmalia Oil Fields Stationary Source triggers emission offsets for NOx and ROCs. Tables 7.3(a) and 7.3(b) summarize the emissions and offset totals for this stationary source.

Table 7.3(a) - Offset Liability Table for PCEC Orcutt Hill Source
Updated: January 30, 2024

Item	Permit	Facility	Issue Date	ERC Returned?	Project	Offset Liability ---- tons/year ---- NO_X	ROC	ERC Source	Notes
1	Prior Offset Liabilities	Various	pre-8/2016	n/a	See Archive Offset Tables	11.357	18.348	Various	(a)
2	ATC 14921	Pinal Lease	03/09/17	No	Wash Tank Replacement	0.000	0.440	ERC 301	(b)
3	ATC/PTO 15256	Orcutt Hill Field (MVFF)	11/30/18	No	MVFF Throughput Increase	0.000	0.013	ERC 462	
4	ATC 15506	Newlove Lease	07/30/20	No	Wash Tank Replacement	0.000	0.270	ERC 507	
5	ATC 15980	Cal Coast Lease (Orcutt Hill)	04/27/23	No	Wash Tank Replacement	0.000	0.090	ERC 565	(b)
6	ATC 16040	Pinal Lease	07/12/23	No	Produced Water Tank Replacement	0.000	0.196	ERC 548	(b)
7	ATC 16121	Newlove Lease	TBD	No	Wash Tank Replacement	0.000	0.128	ERC 640	(b)
					TOTALS (tpy) =	11.357	19.485		

Notes
(a) Pre-August 26, 2016 offset liabilities are summarized in Items (1). See facility Archive Offset Tables for details.
(b) NOx for ROC Interpollutant trade.
(c) See Table 1(b) for ERCs required to mitigate the offset liability. ERC Source denotes the ERC Certificate # used by the ATC permit.
(d) Permits with zero emission increases not shown in this table.

\\sbcapcd.org\shares\Groups\ENGR\WP\Oil&Gas\Major Sources\SSID 02667 Pacific Coast Energy Orcutt Hill\Offsets\[Post 2016 NSR Rule Change PCEC Orcutt Hill Offset-ERC Table - (04-03-23).xlsx]Table 1(a) - Offsets

Table 7.3(b) - Emission Reduction Credits Table for PCEC Orcutt Hill Source
Updated: January 30, 2024

Item	Permit	Facility	Surrender Date	ERC Returned?	Emission Reduction Credits ---- tons/year ---- NO_X	ROC	Offset Ratio	ERC Source	NOTES
1	Prior Offset Liabilities	Various	pre-8/2016	n/a	13.628	22.017	varied	Various	(a)(b)
2	ATC 14921	Pinal Lease	03/09/17	No	0.000	0.484	1.1	ERC 301	(a)(b)(c)
3	ATC/PTO 15256	Orcutt Hill Field (MVFF)	11/30/18	No	0.000	0.014	1.1	ERC 462	(a)(b)
4	ATC 15506	Newlove Lease	07/30/20	No	0.000	0.297	1.1	ERC 507	(a)(b)
5	ATC 15980	Cal Coast Lease (Orcutt Hill)	04/27/23	No	0.000	0.099	1.1	ERC 565	(a)(b)(c)
6	ATC 16040	Pinal Lease	01/17/23	No	0.000	0.215	1.1	ERC 548	(a)(b)(c)
7	ATC 16121	Newlove Lease	TBD	No	0.000	0.141	1.1	ERC 640	(a)(b)
				TOTALS (tpy) =	13.628	23.268			

Notes
(a) Items 1 reflects all NSR ERCs used for the PCEC Orcutt Hill stationary source facilities prior to August 26, 2016. See the August 26, 2016 Archive Offset Tables for details.
(b) Brown text cells require data entry. Do not enter data in Black text cells
(c) NOx for ROC interpollutant trade.

\\sbcapcd.org\shares\Groups\ENGR\WP\Oil&Gas\Major Sources\SSID 02667 Pacific Coast Energy Orcutt Hill\Offsets\[Post 2016 NSR Rule Change PCEC Orcutt Hill Offset-ERC Table - (04-03-23).xlsx]Table 1(b) - ERCs

7.4 Emission Reduction Credits

There are no Emission Reduction Credits associated with the Morganti Lease.

8.0 Lead Agency Permit Consistency

To the best of the District's knowledge, no other governmental agency's permit requires air quality mitigation.

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9.0 Permit Conditions

This section lists the applicable permit conditions for the Morganti Lease. Section A lists the standard administrative conditions. Section B lists 'generic' permit conditions, including emission standards, for all equipment in this permit. Section C lists conditions affecting specific equipment. Section D lists non-federally-enforceable (i.e., District only) permit conditions. Conditions listed in Sections A, B and C are enforceable by the USEPA, the District, the State of California and the public. Conditions listed in Section D are enforceable only by the District and the State of California. Where any reference contained in Sections 9.A, 9.B or 9.C refers to any other part of this permit, that part of the permit referred to is federally-enforceable. In case of a discrepancy between the wording of a condition and the applicable federal or District rule(s), the wording of the rule shall control.

For the purposes of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this permit, nothing in the permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed.

9.A Standard Administrative Conditions

The following federally-enforceable administrative permit conditions apply to the Morganti Lease:

A.1 **Compliance with Permit Conditions:**

(a) The permittee shall comply with all permit conditions in Sections 9.A, 9.B and 9.C.

(b) This permit does not convey property rights or exclusive privilege of any sort.

(c) Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.

(d) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(e) A pending permit action or notification of anticipated noncompliance does not stay any permit condition.

(f) Within a reasonable time period, the permittee shall furnish any information requested by the Control Officer, in writing, for the purpose of determining:

(i) compliance with the permit, or

(ii) whether or not cause exists to modify, revoke and reissue, or terminate a permit or for an enforcement action.

(g) In the event that any condition herein is determined to be in conflict with any other condition contained herein, then, if principles of law do not provide to the contrary, the condition most protective of air quality and public health and safety shall prevail to the extent feasible. *Re: 40 CFR Part 70.6, District Rule 1303.D.1]*

A.2 **Compliance Plan:**

(a) The permittee shall comply with all federally-enforceable requirements that become applicable during the permit term, in a timely manner, as identified in the Compliance Plan.

(b) For all applicable equipment, the permittee shall implement and comply with any specific compliance plan required under any federally-enforceable rules or standards. [*Re: District Rule 1302.D.2*]

A.3 **Right of Entry:** The Regional Administrator of USEPA, the Control Officer, or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises where a Part 70 source is located or where records must be kept:

(a) To inspect the stationary source, including monitoring and control equipment, work practices, operations, and emission-related activity;

(b) To inspect and duplicate, at reasonable times, records required by this Permit to Operate;

(c) To sample substances or monitor emissions from the source or assess other parameters to assure compliance with the permit or applicable requirements, at reasonable times. Monitoring of emissions can include source testing.

[*Re: District Rule 1303.D.2*]

A.4 **Permit Life:** The Part 70 permit shall become invalid three years from the date of issuance unless a timely and complete renewal application is submitted to the District. Any operation of the source to which this Part 70 permit is issued beyond the expiration date of this Part 70 permit and without a valid Part 70 operating permit (or a complete Part 70 permit renewal application) shall be a violation of the CAAA, § 502(a) and 503(d) and of the District rules.

The permittee shall apply for renewal of the Part 70 permit not later than 6-months before the date of the permit expiration. Upon submittal of a timely and complete renewal application, the Part 70 permit shall remain in effect until the Control Officer issues or denies the renewal application. [*Re: District Rule 1304.D.1*]

A.5 **Payment of Fees:** The permittee shall reimburse the District for all its Part 70 permit processing and compliance expenses for the stationary source on a timely basis. Failure to reimburse on a timely basis shall be a violation of this permit and of applicable requirements and can result in forfeiture of the Part 70 permit. Operation without a Part 70 permit subjects the source to potential enforcement action by the District and the USEPA pursuant to section 502(a) of the Clean Air Act. [*Re: District Rules 1303.D.1 and 1304.D.11, 40 CFR 70.6*]

A.6 **Prompt Reporting of Deviations:** The permittee shall submit a written report to the District documenting each and every deviation from the requirements of this permit or any applicable federal requirements within 7 days after discovery of the violation, but not later than 180-days after the date of occurrence. The report shall clearly document 1) the probable cause and extent of the deviation, 2) equipment involved, 3) the quantity of excess pollutant emissions, if any, and 4) actions taken to correct the deviation. The requirements of this condition shall not apply to deviations reported to District in accordance with Rule 505. *Breakdown Conditions*.

A.7 **Reporting Requirements/Compliance Certification:** The permittee shall submit compliance certification reports to the USEPA and the Control Officer every six months. A paper copy, as well as a complete PDF electronic copy of these reports, shall be in a format approved by the District. These reports shall be submitted on District forms and shall identify each applicable requirement/condition of the permit, the compliance status with each requirement/condition, the monitoring methods used to determine compliance, whether the compliance was continuous or intermittent, and include detailed information on the occurrence and correction of any deviations (excluding emergency upsets) from permit requirement. The reporting periods shall be each half of the calendar year, e.g., January through June for the first half of the year. These reports shall be submitted by September 1 and March 1, respectively, each year. Supporting monitoring data shall be submitted in accordance with the "Semi-Annual Monitoring/Compliance Verification Report" condition in section 9.C. The permittee shall include a written statement from the responsible official, which certifies the truth, accuracy, and completeness of the reports. [*Re: District Rules 1303.D.1, 1302.D.3, 1303.2.c*]

A.8 **Federally-Enforceable Conditions:** Each federally-enforceable condition in this permit shall be enforceable by the USEPA and members of the public. None of the conditions in the District-only enforceable section of this permit are federally-enforceable or subject to the public/USEPA review. [*Re: CAAA, § 502(b)(6), 40 CFR 70.6*]

A.9 **Recordkeeping Requirements:** Records of required monitoring information shall include the following:

(a) The date, place as defined in the permit, and time of sampling or measurements
(b) The date(s) analyses were performed
(c) The company or entity that performed the analyses
(d) The analytical techniques or methods used
(e) The results of such analyses
(f) The operating conditions as existing at the time of sampling or measurement

The records (electronic or hard copy), as well as all supporting information including calibration and maintenance records, shall be maintained for a minimum of five (5) years from date of initial entry by the permittee and shall be made available to the District upon request. [*Re: District Rule 1303.D.1.f, 40CFR70.6(a)(3)(ii)(A)*]

A.10 **Conditions for Permit Reopening:** The permit shall be reopened and revised for cause under any of the following circumstances:

(a) Additional Requirements: If additional applicable requirements (e.g., NSPS or MACT) become applicable to the source that has an unexpired permit term of three (3) or more years, the permit shall be reopened. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. However, no such reopening is required if the effective date of the requirement is later than the date on which the permit

is due to expire, unless the original permit or any of its terms and conditions has been extended. All such re-openings shall be initiated only after a 30-day notice of intent to reopen the permit has been provided to the permittee, except that a shorter notice may be given in case of an emergency.

(b) Inaccurate Permit Provisions: If the District or USEPA determine that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit, the permit shall be reopened. Such re-openings shall be made as soon as practicable.

(c) Applicable Requirement: If the District or USEPA determine that the permit must be revised or revoked to assure compliance with any applicable requirement including a federally-enforceable requirement, the permit shall be reopened. Such re-openings shall be made as soon as practicable.

Administrative procedures to reopen and revise/revoke/reissue a permit shall follow the same procedures as apply to initial permit issuance. Re-openings shall affect only those parts of the permit for which cause to reopen exists.

If a permit is reopened, the expiration date does not change. Thus, if the permit is reopened, and revised, then it will be reissued with the expiration date applicable to the re-opened permit. [*Re: 40 CFR 70.7, 40 CFR 70.6*]

A.11 **Grounds for Revocation:** Failure to abide by and faithfully comply with this permit or any Rule, Order, or Regulation may constitute grounds for the APCO to petition for permit revocation pursuant to California Health & Safety Code Section 42307 *et seq*.

A.12 **Severability:** In the event that any condition herein is determined to be invalid, all other conditions shall remain in force.

9.B. Generic Conditions

The generic conditions listed below apply to all emission units, regardless of their category or emission rates. In case of a discrepancy between the wording of a condition and the applicable federal or District rule(s), the wording of the rule shall control.

B.1 **Circumvention (Rule 301):** A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26 (Air Resources) of the Health and Safety Code of the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California, or of District Rule 303. [*Re: District Rule 301*]

B.2 **Visible Emissions (Rule 302):** The permittee shall not discharge into the atmosphere from any single source of emissions any air contaminants for a period or periods aggregating more than three minutes in any one hour that is:

(a) As dark or darker in shade as that designated as No. 1 on the Ringlemann Chart, as published by the United States Bureau of Mines, or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection B.2.(a) above. [*Re: District Rule 302*]

B.3 **Nuisance (Rule 303):** No pollutant emissions from any source at this lease shall create nuisance conditions. Operations shall not endanger health, safety or comfort, nor shall they damage any property or business. [*Re: District Rule 303*]

B.4 **Specific Contaminants (Rule 309):** The permittee shall not discharge into the atmosphere from any single source sulfur compounds and combustion contaminants (particulate matter) in excess of the applicable standards listed in Sections A through E of Rule 309. [*Re: District Rule 309*].

B.5 **Organic Solvents (Rule 317):** The permittee shall comply with the emission standards listed in Rule 317.B. Compliance with this condition shall be based on the permittee's compliance with Condition C.3 of this permit. [*Re: District Rule 317*]

B.6 **Metal Surface Coating Thinner and Reducer (Rule 322):** The use of photochemically reactive solvents as thinners or reducers in metal surface coatings is prohibited. Compliance with this condition shall be based on the permittee's compliance with Condition C.3 of this permit and facility inspections. [*Re: District Rule 322*]

B.7 **Architectural Coatings (Rule 323.I):** The permittee shall comply with the coating ROC content and handling standards listed in Section D of Rule 323 as well as the Administrative requirements listed in Section F of Rule 323.I. Compliance with this condition shall be based on the permittee's compliance with Condition C.3 of this permit and facility inspections. [*Re: District Rules 323, 317, 322, 324*]

B.8 **Disposal and Evaporation of Solvents (Rule 324):** The permittee shall not dispose through atmospheric evaporation of more than one and a half gallons of any photochemically reactive solvent per day. Compliance with this condition shall be based on the permittee's compliance with Condition C.3 of this permit and facility inspections. [*Re: District Rule 324*]

B.9 **Emergency Episode Plans (Rule 603):** During emergency episodes, **t**he permittee shall implement the Emergency Episode Plan dated March 30, 1999. [*Reference District Rule 603*]

B.10 **Adhesives and Sealants (Rule 353):** The permittee shall not use adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primers, unless the permittee complies with the following:

(a) Such materials used are purchased or supplied by the manufacturer or suppliers in containers of 16 fluid ounces or less; or alternatively

(b) When the permittee uses such materials from containers larger than 16 fluid ounces and the materials are not exempt by Rule 353, Section B.1, the total reactive organic compound emissions from the use of such material shall not exceed 200 pounds per year unless the substances used and the operational methods comply with Sections D, E, F, G, and H of Rule 353. Compliance shall be demonstrated by recordkeeping in accordance with Section B.2 and/or Section O of Rule 353. *[Re: District Rule 353]*

B.11 **Oil and Natural Gas Production MACT:** The permittee shall comply with the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Oil and Natural Gas Production and Natural Gas Transmission and Storage (promulgated June 17, 1999). At a minimum, the permittee shall maintain records in accordance with 40 CFR Part 63, Subpart A, Section 63.10 (b) (1) and (3). [*Re:* 40 CFR 63, Subpart HH]

B.12 **CARB Registered Portable Equipment:** State registered portable equipment shall comply with State registration requirements. A copy of the State registration shall be readily available whenever the equipment is at the facility. [*Re: District Rule 202*]

9.C Requirements and Equipment Specific Conditions

This section contains non-generic federally-enforceable conditions, including emissions and operations limits, monitoring, recordkeeping and reporting for each specific equipment group. This section may also contain other non-generic conditions.

C.1 **External Combustion Equipment - Glycol Re-boiler.** The following equipment are included in this emissions unit category:

Table C.1-1 (External Combustion Equipment - Glycol Reboiler)

ID No.	Name
002830	0.10 MMBtu/hr, field gas-fired, glycol re-boiler

(a) Emission Limits: Mass emission rates resulting from the operation of the equipment listed above shall not exceed the corresponding values listed for each in Table 5.1-3 and 5.1-4. Compliance with this condition shall be based on compliance with other conditions listed in this permit.

(b) Operation Limits:

(i) *Heat Input Limits*: The daily and annual heat input to the following combustion equipment shall not exceed those values listed below. These limits are based on the design rating of the equipment and the annual heat input values as listed in the table below. Compliance with this condition shall be based on fuel usage and/or fuel testing. Unless otherwise designated by the APCO, the fuel heat content (Field gas - 1,050 Btu/scf) shall be used for determining compliance:

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Equipment	Fuel	Hourly Heat Input (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
Glycol Reboiler	Field Gas	0.100	2.400	876.000

(ii) *Produced Gas Fuel Sulfur Limit.* The total sulfur content (calculated as H_2S at standard conditions, 60 °F and 14.7 psia) of the produced gas burned at the facility shall not exceed 796 ppmv. Compliance with this condition shall be based on the monitoring, recordkeeping and reporting conditions of this permit.

(c) Monitoring: The following monitoring requirements apply. All records shall be maintained for a minimum of five (5) years. The following records (electronic or hard copy) shall be maintained by the permittee and shall be made available to the District upon request

(i) The volume of produced gas (in units of scf) combusted in the glycol reboiler and flare shall be measured individually through the use of dedicated District-approved calibrated non-resettable totalizing fuel meters. The fuel meters shall be temperature and pressure corrected and shall be accurate to within five percent (5%) of the full-scale reading. The meters shall be calibrated according to manufacturer's specifications and the calibration records shall be made available to the District upon request. All monitoring shall be conducted in accordance with the District-approved *Process Monitor Calibration and Maintenance Plan*.

(ii) Measure the H_2S content of the gaseous fuel of (1) the produced gas exiting the onsite scrubbers and (2) the fuel gas incoming from the Escolle Lease on a weekly basis using colorimetric gas detection tubes. If the gas detection tube measurement indicates an H_2S content greater than 637 ppmv, the permittee shall measure the total sulfur content of the gaseous fuel within one week of this measurement in accordance with ASTM-D1072 or a District approved equivalent method.

(iii) The total sulfur content of the gaseous fuel shall be measured annually in accordance with current ASTM-D1072 or a District approved equivalent method.

(iv) The high heating value (HHV) of the fuel gas (Btu/scf) shall be measured annually in accordance with ASTM D-3588 or a District-approved method. Records shall be kept on site and made available for inspection by the District upon request.

(d) Recordkeeping: The following recordkeeping requirements apply: The volume of produced gas (in units of scf) combusted individually in the glycol reboiler and flare each month and totalized for the year, and the number of days that each unit operated.

(e) Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the APCD. The report shall list all the data required by the Semi-Annual Monitoring/Compliance Verification Reports condition listed below.

C.2 **Storage Tanks.** The following equipment items are included in this emissions category:

Table C.2-1 Storage Tank Equipment List

District Device ID #	Name, Capacity, Dimensions, Process Rate
387518	Crude Reject Tank 1: 1,000 barrels, 21.5' diameter by 12' high
002826	Diluent Tank: 750 barrels, 15.5’ diameter by 24' high

(a) Emission Limits: Mass emissions from the storage tanks shall not exceed the emission limits listed for these items in Tables 5.1-3 and 5.1-4 of this permit. Compliance with these limits shall be assessed through compliance with the monitoring, recordkeeping and reporting (MRR) conditions listed in this permit.

(b) Operational Limits: Operation of the equipment listed above shall conform to the requirements listed in District Rule 325, Rule 343, and Rule 346. Compliance with these limits shall be assessed through compliance with the monitoring, recordkeeping and reporting (MRR) conditions listed in this permit. In addition, the following limits apply:

(i) *Process Throughputs.* The following throughput limits apply:

- Total Crude Oil (dry): 800 barrels/day
- Gas Production: 800,000 scf/day
- Diluent Consumption: 700 bbl/day

Note: Crude oil totals are derived from monthly production divided by producing days and includes produced oil and blend oil. Gas production is derived from monthly production divided by producing days. Diluent totals are derived from monthly use divided by days of use.

(ii) *Oil Tank ROC Emissions Control.* The vapor recovery/gas collection (VR/GC) systems shall be connected to each tank and operating during production or processing (including storage, holding or placement) of petroleum and petroleum related products and shall meet the requirement of Rule 325. The VR/GC system includes all associated piping, valves, and flanges. The VR/GC system shall be maintained and operated properly including a leak-free mode of operation and shall achieve a vapor removal efficiency of 90% or greater.

(iii) *Diluent Unloading.* The diluent unloading rack shall not be used to transfer organic liquids into an organic liquid cargo vessel

(c) Monitoring: Monitoring requirements for the equipment listed above are, as follows:

(i) The volume of oil (in units of bbls) produced from this facility shall be measured through the use of a calibrated meter or through the use of a District-approved alternate method. The meter shall be calibrated according to manufacturer’s specifications and the calibration records shall be made available to the District upon request. All monitoring shall be conducted in accordance with the District approved *Process Monitor Calibration and Maintenance Plan*.

(ii) On an annual basis, the API gravity and true vapor pressure (TVP) of the crude oil shall be measured by using ASTM Method D 323-82 (if the API gravity is equal to or greater than 20 degrees) or the HOST Method (if the API gravity is below 20 degrees). The true vapor pressure shall be based on the maximum expected temperature of the crude oil.

If ASTM D323-82 applies, the TVP shall be calculated from the Reid vapor pressure in accordance with API Bulletin 2518, or equivalent Reid/true vapor pressure correlation. The true vapor pressure shall be based on the maximum expected operating temperature of the crude oil. Samples of crude oil shall be obtained from an active flow line into the initial tank, or from the tank, provided that there is an active flow of crude oil into the tank.

(d) Recordkeeping: The records required below shall be maintained by the permittee for a minimum period of five (5) calendar years and shall be made available to the District personnel upon request.

(i) Record in a log the monthly and annual volumes of dry oil production and the actual number of days in production per month. The daily limit is based on actual days of operation per month.

(ii) Results of the annual API gravity and true vapor pressure measurements at the maximum expected operating temperature of the crude oil.

(iii) The dates of diluent shipments and the total volume of diluent (in units of bbls) received on each day listed.

(iv) Results of the annual API gravity and true vapor pressure measurements at the maximum expected operating temperature of the stored diluent

(e) Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report shall list all the data required by the Semi-Annual Monitoring/Compliance Verification Reports condition of this permit.

C.3 **Wastewater Tanks, Sumps and Pits.** The following equipment are included in this emissions category:

Dev No.	Equipment Name; Capacity, Size
002860	Wastewater Tank: 1,000 barrels, 21.5' diameter by 16' high
114581	Produced Water Tank: 1,000 barrels, 21.5' diameter by 16' high
100963	Sumps (2):19.63 sq. ft.
100962	Loading Rack Sump: 10.0 sq. ft.
002831	Emergency Wastewater Pit: 2,608 sq.ft

(a) Emission Limits: Mass emissions from the equipment listed in the table above shall not exceed the limits listed in Tables 5.1-3 and 5.1-4.

(b) Operational Limits: The following operational limits shall apply:

(i) The emergency pit shall not receive nor store any ROC liquids for more than 29 days per year.

(ii) All processing operations for the equipment listed in this section shall meet the requirements of District Rules 325, 343 and 344. Compliance with these limits shall be assessed through compliance with the monitoring, recordkeeping and reporting conditions in this permit.

(c) Monitoring: The equipment listed in this section is subject to all the monitoring requirements of District Rule 325.H. The test methods outlined in District Rule 325.G shall be used, when applicable. In addition, the permittee shall perform the following compliance monitoring:

(i) For all degassing events, monitor the volume purged, characteristics of the vapor purged, and control device/method used.

(d) Recordkeeping: The tanks listed in this section are subject to all the recordkeeping requirements listed in District Rule 325.F. In addition, the permittee shall record the following:

(i) Dates that the emergency pit received or stored any ROC liquids.

(e) Reporting: On a semi-annual basis, a report detailing the previous six-month's activities shall be provided to the District. The report must list all data required by the *Semi-Annual Compliance Verification Reports* condition of this permit.

C.4 **Fugitive Hydrocarbon Emissions Components.** The following equipment are included in this emissions unit category:

Dev No	Equipment
8750/2864	Valves, flanges and other components in hydrocarbon service

(a) Emission Limits: Fugitive emission limits are not federally-enforceable.

(b) Operational Limits: Operation of the equipment listed in this section shall conform to the requirements listed in District Rule 331.D and E. Compliance with these limits shall be assessed through compliance with the monitoring, recordkeeping and reporting conditions in this permit. In addition, the permittee shall meet the following requirements:

(i) *I&M Program:* The District-approved Fugitive Hydrocarbon I&M Plan and any updates shall be implemented for the life of the project. An updated Fugitive Emissions Inspection and Maintenance Plan must be submitted to the District for review and approval within one calendar quarter whenever there is a change in the component list or diagrams.

(ii) *Venting:* All routine venting of hydrocarbons shall be controlled at all times using a properly maintained and operated system that directs all produced gas, except gas used in a tank battery vapor recovery system, to one of the following: a sales compressor, flare header, injection well or other District-approved control device.

(iii) The total component and component leak-path counts listed in the latest fugitive inspection and maintenance inventory shall not exceed the component leak-path counts authorized by this permit by more than five-percent. This five-percent range is to allow for small differences due to component leak-path counting methods, and does not authorize additional component leak-paths.

(iv) The vapor recovery/gas collection (VRGC) system shall be in operation when the equipment connected to the VRGC system is in use. The VRGC system includes associated valves, fittings, and flanges. The VRGC system shall be maintained and operated to minimize the release of emissions from all systems, including the pressure relief valves and gauge hatches.

(c) Monitoring: The equipment listed in this section are subject to all the monitoring requirements listed in District Rule 331.F. The test methods in Rule 331.H shall be used, when applicable.

(d) Recordkeeping: All inspection and repair records shall be retained at the source for a minimum of five years. The equipment listed in this section are subject to all the recordkeeping requirements listed in District Rule 331.G.

(e) Reporting: On a semi-annual basis, a report detailing the previous six-month's activities shall be provided to the District. The report must list all data required by the *Semi-Annual Compliance Verification Reports* condition of this permit.
(*Re: District Rules 331 and 1303, 40 CFR 70.6*]

C.5 **Well Cellars.** The following equipment are included in this emissions category:

Dev No	Equipment Name; Capacity, Size
002862	Well Cellars (24)

(a) Emission Limits: Emission limits for well cellars are not federally-enforceable.

(b) Operational Limits: All process operations from the equipment listed in this section shall meet the requirements of District Rule 344. Rule 344.D.3 requires that:

(i) A person shall not open any valve at the wellhead without using a portable container to catch and contain any organic liquid that would otherwise drop on the ground or into the well cellar. Such container shall be kept closed when not in use.

(ii) Immediately before a well is steamed or after a wellhead is steam cleaned, the well cellar in which it is located shall be pumped out.

(iii) Neither of the following conditions shall occur unless the owner or operator discovered the condition and the well cellar is pumped within 7 days of discovery:

a. liquid depth exceeding 50-percent of the depth of the well cellar.

b. oil/petroleum depth exceeding 2 inches.

If a well cellar cannot be accessed by a vacuum truck due to muddy conditions, the well cellar shall be pumped as soon as it becomes accessible.

(c) Monitoring: The permittee shall inspect the well cellars on a weekly basis to ensure that the liquid depth and the oil/petroleum depth does not exceed the limits in Rule 344.D.3.c.

(d) Recordkeeping: The following information relating to detection of conditions requiring pumping of a well cellar as required in Section D.3.c shall be recorded for each detection:

(i) the date of the detection,

(ii) the name of the person and company performing the test or inspection, and

(iii) the date and time the well cellar is pumped.

(e) Reporting: None

[*Re: District Rules 344.D.3 and 344.G.2]*

C.6 **Flare.** The following equipment is included in this emissions category:

Device #	Equipment Description
008428	Flare. Maximum heat input rating: 5.625 MMBtu/hr, equipped with automatic ignition system and continuously monitored by thermocouple.

(a) Emission Limits: Mass emission rates resulting from the operation of the equipment listed above shall not exceed the corresponding values listed for each in Table 5.1-3 and 5.1-4. Compliance with this condition shall be based on compliance with other conditions listed in this permit.

(b) Operational Limits:

(i) *Heat Input Limits*: The daily and annual heat input to the following combustion equipment shall not exceed those values listed below. These limits are based on the design rating of the equipment and the annual heat input values as listed in the table below. Compliance with this condition shall be based on fuel usage and/or fuel testing. Unless otherwise designated by the APCO, the fuel heat content (Field gas - 1,050 Btu/scf) shall be used for determining compliance:

.

Equipment	Fuel	Hourly Heat Input (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
Flare	Field Gas	5.625	135.000	49,275.000

(ii) The flare outlet shall be equipped with an automatic ignition system including a pilot-light gas source or equivalent system, or shall operate with a pilot flame present at all times - with the exception of purge periods for automatic-ignition equipped flares or thermal oxidizers.

(iii) The presence of the flame in the pilot of the flare shall be continuously monitored using a thermocouple or an equivalent device that detects the presence of a flame.

(iv) The flame shall be operating at all times when combustible gases are vented through the flare.

(v) The flare shall operate in a smokeless manner per Rule 359.D.2.a. There shall be no visible emissions from the flare.

(c) Monitoring:

(i) Monitoring of flared gas volumes shall be performed in accordance with E&B's District approved *Flare Monitoring Plan*.

(ii) The presence of the flame in the open pipe flare pilot shall be continuously monitored using a thermocouple or an equivalent device that detects the presence of a flame.

(iii) The permittee shall perform a visible emissions inspection for a one-minute period once per quarter during a planned flaring event. The start-time and end-time of each visible emissions inspection shall be recorded in a log, along with a notation identifying whether visible emissions were detected in accordance with the District approved Visible Emissions Log.. All records shall be maintained consistent with the recordkeeping condition of this permit. [*Re: District Rule 302*].

(d) Recordkeeping: The following records shall be maintained:

(i) Flared gas volumes in accordance with E&B's District approved *Flare Monitoring Plan.*

(ii) Quarterly visible emissions inspections and results.

(e) Reporting: On a semi-annual basis, a report detailing the previous six-month's activities shall be provided to the District. The report must list all data required by the *Semi-Annual Compliance Verification Reports* condition of this permit. [*Re: District Rule 359, E&B Flare Minimization Plan.*

C.7 **Crude Oil Loading Rack.** The following equipment is included in this emissions category:

Device #	Equipment Description
109722	Crude Oil Loading Rack.

(a) Emission Limits: Mass emissions from the loading rack listed above shall not exceed the limits listed in Tables 5.1-3 and 5.1-4.

(b) Operational Restrictions:

(i) The following throughput limitations shall not be exceeded:

Daily Truck Loading of Oil	800bbl/day
Annual Truck Loading of Oil	292,000bbl/yr

(ii) The loading rack used to ship oil from the facility shall use bottom-loading and a vapor recovery system that prevents the vapors displaced during loading from being released into the atmosphere. The operator shall also use either a block and bleed valve system or other connectors with equivalent spill prevention characteristics. Additionally, the operator shall use one of the following devices to prevent overfill:

a. A primary overfill protection system consisting of a preset fill meter with automatic flow shutoff and a secondary overfill protection system consisting of a liquid level sensor with the ability to signal high level to activate a control valve to shut off flow, or

b. A combination of overfill devices and/or procedures, submitted in writing to the District, that is at least as effective in preventing overfill spillage as the system in Condition C.4.b(ii)a. District written approval must be obtained prior to implementing this option.

(c) Monitoring: The volumes of oil (bbls) shipped from this facility shall be measured with calibrated meters or with a District-approved alternate method. The meters shall be calibrated according to manufacturer's specifications and the calibration records shall be made available to the District upon request.

(d) Recordkeeping: The tanks listed in this section are subject to all the recordkeeping requirements listed in District Rule 325.F. In addition, the permittee shall record the following:

(i) The dates of oil shipments through the loading rack and the total volume of oil (bbls) shipped on each day listed.

(e) Reporting: On a semi-annual basis, a report detailing the previous six-month's activities shall be provided to the District. The report must list all data required by the *Semi-Annual Compliance Verification Reports* condition of this permit

C.8 **Pigging Equipment.** The following equipment is included in this emissions category:

ID No.	Name, Serial No., if applicable, size, events/week, release pressure
100959	Oil Pig Launch. Release pressure 5 psig.

(a) Emission Limits: Mass emissions for the equipment item (i.e., emissions unit) shall not exceed the values listed in Tables 5.1-3 and 5.1-4. Compliance with these limits is assumed to be met through compliance with the operating limit and monitoring condition listed below.

(b) Operational Limits: Operation of the equipment listed in this section shall conform to the requirements listed in District Rule 325.E. In addition, the facility shall meet the following requirements:

(i) Access openings to the oil pig launcher shall be kept closed at all times, except when a pipeline pig is being placed into or removed from the launcher. The gas pig launcher unit shall be locked out of service.

(ii) The pressure inside the pig chamber shall be bled to 0.5 psig or less prior to opening the chamber to the atmosphere.

(iii) The number of oil and gas pig operations (events) shall not exceed the maximum operating schedule listed in Table 5.1-1.

(c) Monitoring: The facility shall maintain a log for oil pigging operations. The log shall include the date each pigging operation occurred.

(d) Recordkeeping: The facility shall keep a written record of dates and the pressure inside the pig chamber prior to opening the chamber to the atmosphere for each pigging event.

(e) Reporting: The facility shall report to the District all information required under the *Semi-Annual Compliance Verification Report* condition of this permit.

C.9 **Solvent Usage.** The following items are included in this emissions unit category: Photochemically reactive solvents, surface coatings and general solvents.

(a) Emission Limits: The following solvent emission limits are federally-enforceable for the entire stationary source:

Solvent Type	**lbs/hour**	**lbs/day**
Photochemically Reactive	8 lbs/hour	40 lbs/day
Non-Photochemically Reactive	450 lbs/hour	3,000 lbs/day

(b) Operational Limits: Use of solvents for cleaning/degreasing shall conform to the requirements of District Rules 317, 322, 323 and 324. Compliance with these rules shall be assessed through compliance with the monitoring, recordkeeping and reporting conditions in this permit and facility inspections.

(i) *Reclamation Plan*: The permittee may submit a Plan to the District for the disposal of any reclaimed solvent. If the Plan is approved by the District, all solvent disposed of pursuant to the Plan will not be assumed to have evaporated as emissions into the air and, therefore, will not be counted as emissions from the source. The permittee shall obtain District approval of the procedures used for such a disposal Plan. The Plan shall detail all procedures used for collecting, storing and transporting the reclaimed solvent. Further, the ultimate fate of these reclaimed solvents must be stated in the Plan.

(c) Monitoring: None.

(d) Recordkeeping: The permittee shall record in a log the following on a monthly basis for each solvent used: amount used; the percentage of ROC by weight (as applied); the solvent density; the amount of solvent reclaimed for District-approved disposal; whether the solvent is photochemically reactive; and, the resulting emissions to the atmosphere in units of pounds per month and pounds per day. Product sheets (MSDS or equivalent) detailing the constituents of all solvents shall be maintained in a manner readily accessible to District inspection.

(e) Reporting: On a semi-annual basis, a report detailing the previous six-month's activities shall be provided to the District. The report must list all data required by the *Semi-Annual Compliance Verification Reports* condition of this permit.

C.10 **Compliance with Rule 361.** Boiler 1 (Device ID: 110345), Boiler 2 (Device ID: 106922) and Heater Treater (Device ID: 108155) are subject to the emission control requirements of Rule 361. Except as provided for in Section (b) below, the permittee shall maintain these units in an *out of service state* in lieu of satisfying the requirements of Rule 361 Section D. An out of service state is defined as being completely disconnected from all lines and fuel sources at all times. If, at any time, any of the units do not meet this *out of service* definition, that unit shall be deemed in direct violation of the permit. In addition, the following requirements apply:

(a) *Inspections*: The permittee shall inspect Boiler 1 (Device ID: 110345), Boiler 2 (Device ID: 106922) and Heater Treater (Device ID: 108155) once per quarter to confirm that the combustion units have remained disconnected from all fuel lines. Each inspection shall be recorded in a log which includes the date of inspection, the combustion unit identification number of the unit inspected, the name of the person completing the inspection, and the signature of the responsible official confirming the inspection has been completed and that the unit(s) were not operated.

(b) Operation: Prior to operating Boiler 1 (Device ID: 110345), Boiler 2 (Device ID: 106922) and Heater Treater (Device ID: 108155), the permittee shall submit an application for an Authority to Construct (ATC) permit and obtain an ATC permit ensuring that Rule 361.D (Emission Standards) will be met.

C.11 **Recordkeeping.** The permittee shall maintain all records and logs required by this permit or any applicable federal rule or regulation for a minimum of five calendar years from the date of information collection and log entry at the lease. These records or logs shall be readily accessible and be made available to the District upon request.

C.12 **Semi-Annual Monitoring/Compliance Verification Reports.** The permittee shall submit a report to the District every six months to verify compliance with the emission limits and other requirements of this permit. A paper copy, as well as a complete PDF electronic copy of these reports, shall be in a format approved by the District. The reporting periods shall be each half of the calendar year, e.g., January through June for the first half of the year, and shall be submitted by September 1 and March 1, respectively, each year. All logs and other basic source data not included in the report shall be available to the District upon request. The second report shall also include an annual report for the prior four quarters. The report shall include the following information:

(a) The volume of oil (in units of bbls) produced each month and the number of days that oil was produced each month.

(b) Results of the annual API gravity and true vapor pressure measurements at the maximum expected operating temperature of the crude oil.

(c) The volume of produced gas (in units of scf) combusted individually in the glycol reboiler and flare each month and totalized for the year, and the number of days that each unit operated.

(d) The results of the weekly colorimetric detection tube H_2S concentration readings of the produced gas.

(e) The results of the annual total sulfur content measurements of the produced gas.

(f) The results of the annual higher heating value analyses for the produced gas (Btu/scf).

(g) Daily logs documenting the volume (in units of bbl) of oil shipped through the loading rack, dates of oil shipments and totalized for the year.

(h) The dates of diluent shipments and the total volume of diluent (in units of bbls) received on each day listed.

(i) Results of the annual API gravity and true vapor pressure measurements at the maximum expected operating temperature of the stored diluent.

(j) Dates and the pressure inside the pig chamber prior to opening the chamber to the atmosphere for each pigging event.

(k) Dates that the emergency pit received or stored any ROC liquids.

(l) On an annual basis, a log showing the amount of all coatings and solvents used.

(m) Copies of the most recent maintenance and calibration logs for the combustion units and fuel flow meters.

(n) Copies of the *out-of-service* inspection records in accordance with Condition 6.

(o) Records required by the following District Rules: 325.F, 331.G, 344.G, 346.G and 359.G.

(p) *CARB GHG Regulation Reporting*. The permittee shall report all throughput data and any updates to the information recorded pursuant to the *CARB GHG Regulation Recordkeeping* condition above using District Annual Report Form ENF-108.

C.13 **Emission Offsets.** PCEC shall offset all oxides of nitrogen (NO_x) and reactive organic compound (ROC) emissions pursuant to Tables 7.3(a) and 7.3(b) of this permit. Emission reduction credits (ERCs) sufficient to offset the permitted quarterly NO_x and ROC emissions shall be in place for the life of the project.

C.14 **Requirements for Produced Gas.** The emissions of produced gas shall be controlled at all times using a properly maintained and operated system that directs all produced gas, except gas used in a tank battery vapor recovery system, to one of the following: (a) a system handling gas for fuel, sale, or underground injection; or (b) a flare that combusts reactive organic compounds; or (c) a device with an ROC vapor removal efficiency of at least 90% by weight. The provisions of this condition shall not apply to wells that are undergoing routine maintenance.

C.15 **External Combustion Units--Permits Required.**

(a) An ATC/PTO permit shall be obtained prior to installation of any grouping of Rule 360 applicable boilers or hot water heaters whose combined system design heat input rating exceeds 2.000 MMBtu/hr.

(b) An ATC permit shall be obtained prior to installation, replacement, or modification of any existing Rule 361 applicable boiler or water heater rated over 2.000 MMBtu/hr.

(c) An ATC shall be obtained for any size boiler or water heater if the unit is not fired on natural gas or propane.

C.16 **Documents Incorporated by Reference.** PCEC shall implement, and operate in accordance with the plan listed below. This document, including any District-approved updates thereof, is incorporated herein and shall the full force and effect of a permit condition of this operating permit. This document shall be implemented for the life of the project.

(a) Process Monitor Calibration and Maintenance Plan (approved March 2008)

(b) Fuel Use Monitoring Plan (Approved March 2008)

(c) Fuel Gas Sulfur and HHV Monitoring Plan (Approved March 2008)

(d) Fugitive Hydrocarbon Inspection and Maintenance Plan (Approved June 2010)

9.D District-Only Conditions

The following section lists permit conditions that are not federally-enforceable (i.e., not enforceable by USEPA or the public). However, these conditions are enforceable by the District and the State of California. These conditions have been determined as being necessary to ensure that operation of the facility complies with all applicable local and state air quality rules, regulations and laws. Failure to comply with any of these conditions shall be a violation of District Rule 206, this permit, as well as any applicable section of the California Health & Safety Code.

D.1 **Condition Acceptance:** Acceptance of this operating permit by the permittee shall be considered as acceptance of all terms, conditions, and limits of this permit.

D.2 **Consistency with Analysis:** Operation under this permit shall be conducted consistent with all data, specifications and assumptions included with the application and supplements thereof (as documented in the District's project file), and with the District's analyses under which this permit is issued as documented in the Permit Analyses prepared for and issued with the permit.

D.3 **Compliance.** Nothing contained within this permit shall be construed to allow the violation of any local, State or Federal rule, regulation, ambient air quality standard or air quality increment.

D.4 **Abrasive Blasting Equipment:** All abrasive blasting activities performed on the Morganti Lease shall comply with the requirements of the California Administrative Code Title 17, Sub-Chapter 6, Sections 92000 through 92530.

D.5 **Mass Emission Limitations:** Mass emissions for each equipment item (i.e., emissions unit) associated with the Morganti Lease shall not exceed the values listed in Table 5.1-3 and 5.1-4. Emissions for the entire facility shall not exceed the total limits listed in Table 5.2.

D.6 **Annual Compliance Verification Reports:** The permittee shall submit a report to the District, by March 1 of each year containing the information listed below and shall document compliance with all applicable permit requirements. A paper copy, as well as a complete PDF electronic copy of these reports, shall be in a format approved by the District. These reports shall be in a format approved by the District. All logs and other basic source data not included in the report shall be available to the District upon request. Pursuant to Rule 212, the annual report shall include a completed *District Annual Emissions Inventory* questionnaire, or the questionnaire may be submitted electronically via the District website. The report shall include the following information:

(a) Breakdowns and variances reported/obtained per Regulation V along with the excess emissions that accompanied each occurrence.

(b) The ROC and NO_X emissions from all permit exempt activities (tons per year by device/activity).

(c) The annual emissions totals of all pollutants in tons per year for each emission unit and summarized for the entire facility.

D.7 **Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities:** The equipment permitted herein shall be operated in compliance with the California Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities regulation (CCR Title 17, Section 95665 *et. Seq*.).

D.8 **CARB GHG Regulation Recordkeeping:** The permittee shall maintain at least 5 years of records that document the following:

(a) The number of crude oil or natural gas wells at the facility.

(b) A list identifying all pressure vessels, tanks, separators, sumps, and ponds at the facility, including the size of each tank and separator in units of barrels..

(c) The annual crude oil, natural gas, and produced water throughput of the facility.

(d) A list identifying all reciprocating and centrifugal natural gas compressors at the facility.

(e) A count of all natural gas powered pneumatic devices and pumps at the facility.

(f) A copy of the *Best Practices Management Plan* designed to limit methane emissions from circulation tanks, if applicable.

D.9 **CARB GHG Regulation Reporting:** On an annual basis, the permittee shall report all throughput data and any updates to the information recorded pursuant to the *CARB GHG Regulation Recordkeeping* Condition above using District Annual Report Form ENF-108. This report shall be submitted by March 1 of each year detailing the previous year's activities.

Air Pollution Control Officer

_____

_____

Date

NOTES:

(a) This permit supersedes PTO 8096-R12
(b) Permit Reevaluation Due Date: June 1, 2027

10.0 Attachments

10.1 Emission Calculation Documentation
10.2 Emission Calculation Spreadsheets
10.3 Fee Calculation
10.4 IDS Tables
10.5 Equipment List
10.6 Well List

10.1 EMISSION CALCULATION DOCUMENTATION – MORGANTI LEASE

This attachment contains all relevant emission calculation documentation used for the emission tables in Section 5. Refer to Section 4 for the general equations. Detailed calculation spreadsheets are attached as Attachment 10.2. The reference letters refer to Tables 5.1-1 and 5.1-2.

Reference A - Glycol Reboiler

→ 0.10 MMBtu/hr uncontrolled glycol reboiler.

→ The glycol reboiler NO_x emission factor is 0.092 lb/MMBtu based on the District's uncontrolled emission factor for a 0.100 MMBtu/hr unit. The glycol reboiler CO emission factor is 0.0393 lb/MMBtu based on the District's uncontrolled emission factor for a 0.100 MMBtu/hr unit.

Reference B - Open-Pipe Flare

→ NOx and CO emission factors based on AP-42 Table 13.5-1. ROC emission factor based on APCD February 2016 Flare Study. PM/PM10 emission factors based on AP-42 Chapter 1.4.

Reference C - Fugitive Emitting Components

→ Emission factors are based on District P&P 6100.060.1996 (*Calculation of Fugitive Hydrocarbon Emissions at Oil and Gas Facilities by the CARB/KVB Method*, July 1996) and District P&P 6100.061 (*Determination of Fugitive Hydrocarbon Emissions at Oil and Gas Facilities Through the Use of Facility Component Counts - Modified for Revised ROC Definition)* where specific component counts are not available. See Attachment 10.2 (A-6).

→ For sources that have specific component leakpath counts, emissions are computed based on emission factors for component leak path categories listed in District P&P 6100.061 (*Determination of Fugitive Hydrocarbon Emissions at Oil and Gas Facilities Through the Use of Facility Component Counts - Modified for Revised ROC Definition*). Emission factors have been assigned to each component based on component type and service. See Attachment 10.2 (A-5).

→ In determining the facility model using the CARB/KVB methodology for fugitive emissions, a default Gas Oil Ratio of 501 scf/bbl was used. This value assumes the worst-case model.

→ An 80% reduction in fugitive emissions is assumed due to the implementation of a fugitive inspection and maintenance plan pursuant to Rule 331.

Reference E - Petroleum Storage Tanks

→ The hourly/daily/annual emissions for the petroleum storage tanks is based on USEPA AP-42 Chapter 7, Liquid Storage Tanks (5^{th} Edition, 2/96)

Reference F - Well Cellars, Pits, Sumps and Wastewater Tanks

- → The maximum operating schedule is in units of hours;
- → Emission calculation methodology based on the CARB/KVB report *Emission Characteristics of Crude Oil Production Operations in California (1/83)*;
- → Calculations are based on surface area of emissions noted in the inspector's report;
- → The THC Speciation is based on CARB profiles # 529, 530, 531, 532; the ROC/TOC ratio is based on the District's guideline *"VOC/ROC Emission Factors and Reactivities for Common Source Types"* Table dated 07/13/98 (version 1.1).

Reference G - Loading Rack

- → The grade level loading rack, connected to the VRU, is used to load crude oil into tanker trucks. Controlled ROC emissions from tanker truck crude oil loading are estimated from emission equations and factors listed in USEPA, AP-42, (Section 5).

Solvents

- → All solvents not used to thin surface coatings are included in this equipment category
- → Daily and annual emission rates assumed to be minimal (0.01 lb/day, 0.01 TPY)

10.2 Emission Calculation Spreadsheets

CRUDE OIL TANK 1 EMISSION CALCULATIONS (Ver. 4.0)

Attachment: A-1
Permit Number: Pt70 PTO 16213
Facility: Morganti Lease

Basic Input Data

Information	*Value*	*Reference*
Liquid Type	Crude Oil	Permit Application
Liquid TVP	0.84	Permit Application
If TVP is entered, enter TVP temperature (°F)	145	Permit Application
Is the tank heated (Yes or No)?	Yes	Permit Application
If tank is heated, enter temperature (°F)	145	Permit Application
Is tanked to a VRS (Yes or No)?	Yes	Permit Application
Is this a wash tank (Yes or No)?	No	Permit Application
Will flashing losses occur (Yes or No)?	No	Permit Application
Breather vent pressure setting range (psi)	0.06	Permit Application (default of 0.06 psi)

Tank Data

Information	*Value*	*Reference*
Diameter (feet)	21.5	Permit Application
Capacity (barrels)	1,000	Permit Application
Capacity (gallons)	42,000	Calculated Value
Roof Type (Enter C if Conical, or D if Dome Roof)	c	Permit Application
Shell Height (feet)	12	Permit Application
Roof Height	1	Permit Application (default of 1 foot)
Average Liquid Height (feet)	6	Calculated Value
Tank Paint Color	Medium Gray	Permit Application
Condition (Enter 1 if Good, or 2 if Poor)	1	Permit Application (default of 0.06 psi)
Upstream pressure (psi)	0.06	Permit Application (0 psi when no flashing loses occur)

Liquid Data

Information	*Value*	*Reference*
Maximum Daily Throughput (barrels per day)	400	Permit Application
Maximum Annual Throughput (gallons)	6.132E+06	Calculated Value
RVP (psi)	0.38596	RVP Matrix
API Gravity (°)	10.3	Permit Application

Vapor Recovery System Data

Information	*Value*	*Reference*
Vapor Recovery System Long Term Efficiency	95.00%	SBCAPCD
Vapor Recovery System Short Term Efficiency	95.00%	SBCAPCD

Tank ROC Potential to Emit

	Uncontrolled Potential to Emit		***Controlled Potential to Emit***	
	lb/day	**TPY**	**lb/day**	**TPY**
Breathing Losses	0.07	0.01	0.00	0.00
Working Losses	4.13	0.75	0.21	0.04
Flashing Losses	0.00	0.00	0.00	0.00
Total	**4.20**	**0.77**	**0.21**	**0.04**

Processed By: JJM Date: 14-Mar-24

DILUENT TANK EMISSION CALCULATIONS (Ver. 4.0)

Attachment: A-2
Permit Number: Pt70 PTO 16213
Facility: Morganti Lease

Basic Input Data

Information	*Value*	*Reference*
Liquid Type	Crude Oil	Permit Application
Liquid TVP	0.5	Permit Application
If TVP is entered, enter TVP temperature (°F)	67	Permit Application
Is the tank heated (Yes or No)?	No	Permit Application
If tank is heated, enter temperature (°F)	N/A	Permit Application
Is tanked to a VRS (Yes or No)?	No	Permit Application
Is this a wash tank (Yes or No)?	No	Permit Application
Will flashing losses occur (Yes or No)?	No	Permit Application
Breather vent pressure setting range (psi)	0.06	Permit Application (default of 0.06 psi)

Tank Data

Information	*Value*	*Reference*
Diameter (feet)	15.5	Permit Application
Capacity (barrels)	750	Permit Application
Capacity (gallons)	31,500	Calculated Value
Roof Type (Enter C if Conical, or D if Dome Roof)	c	Permit Application
Shell Height (feet)	24	Permit Application
Roof Height	1	Permit Application (default of 1 foot)
Average Liquid Height (feet)	12	Calculated Value
Tank Paint Color	Medium Gray	Permit Application
Condition (Enter 1 if Good, or 2 if Poor)	1	Permit Application (default of 0.06 psi)
Upstream pressure (psi)	0.06	Permit Application (0 psi when no flashing loses occur)

Liquid Data

Information	*Value*	*Reference*
Maximum Daily Throughput (barrels per day)	750	Permit Application
Maximum Annual Throughput (gallons)	1.150E+07	Calculated Value
RVP (psi)	1.21849	RVP Matrix
API Gravity (°)	20	Permit Application

Vapor Recovery System Data

Information	*Value*	*Reference*
Vapor Recovery System Long Term Efficiency	95.00%	SBCAPCD
Vapor Recovery System Short Term Efficiency	95.00%	SBCAPCD

Tank ROC Potential to Emit

	Uncontrolled Potential to Emit		***Controlled Potential to Emit***	
	lb/day	**TPY**	**lb/day**	**TPY**
Breathing Losses	0.73	0.13	0.73	0.13
Working Losses	3.13	0.57	3.13	0.57
Flashing Losses	0.00	0.00	0.00	0.00
Total	**3.86**	**0.70**	**3.86**	**0.70**

Processed By: JJM Date: 14-Mar-24

FUGITIVE HYDROCARBON EMISSION CALCULATIONS - CLP METHOD (Ver. 3.0)

Attachment: A-3
Permit Number: Pt70 PTO 16213
Facility: Morganti Lease

Facility Information

Facility Type (Enter X Where Appropriate)
Production Field **X** Gas Processing Plant ____ Refinery ____ Offshore Platform ____

Gas/Condensate Service Component

Component Type	*Component Count*	*THC Emission Factor (lb/day-clp)* [a]	*ROC/THC Ratio*	*Uncontrolled ROC Emission (lb/day)*	*Control Efficiency* [b,c]	*Controlled ROC Emission (lb/hr)*	*Controlled ROC Emission (lb/day)*	*Controlled ROC Emission (Tons/Qtr)*	*Controlled ROC Emission (Tons/Yr)*
Valves - Accessible/Inaccessible	65	0.295	0.31	5.94	0.80	0.05	1.19	0.05	0.22
Valves - Unsafe	0	0.295	0.31	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.295	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.295	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.295	0.31	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.295	0.31	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.295	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.295	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.295	0.31	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.295	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.295	0.31	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/Inaccessible	256	0.070	0.31	5.56	0.80	0.05	1.11	0.05	0.20
Flanges/Connections - Unsafe	0	0.070	0.31	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.070	0.31	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.070	0.31	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.070	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.070	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.070	0.31	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.070	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.070	0.31	0.00	0.92	0.00	0.00	0.00	0.00
Compressor Seals - To Atm	1	2.143	0.31	0.66	0.80	0.01	0.13	0.01	0.02
Compressor Seals - To VRS	0	2.143	0.31	0.00	1.00	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	2	6.670	0.31	4.14	0.80	0.03	0.83	0.04	0.15
PSV - To VRS	0	6.670	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	0	1.123	0.31	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem	0	1.123	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Gas Condensate Subtotals	**324**			**16.30**		**0.14**	**3.26**	**0.15**	**0.59**

Oil Service Components

Component Type	*Component Count*	*THC Emission Factor (lb/day-clp)* [a]	*ROC/THC Ratio*	*Uncontrolled ROC Emission (lb/day)*	*Control Efficiency* [b,c]	*Controlled ROC Emission (lb/hr)*	*Controlled ROC Emission (lb/day)*	*Controlled ROC Emission (Tons/Qtr)*	*Controlled ROC Emission (Tons/Yr)*
Valves - Accessible/Inaccessible	45	0.004	0.56	0.10	0.80	0.00	0.02	0.00	0.00
Valves - Unsafe	0	0.004	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.004	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.004	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.004	0.56	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.004	0.56	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.004	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.004	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.004	0.56	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.004	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.004	0.56	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/Inaccessible	130	0.002	0.56	0.15	0.80	0.00	0.03	0.00	0.01
Flanges/Connections - Unsafe	0	0.002	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.002	0.56	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.002	0.56	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.002	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.002	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.002	0.56	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.002	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.002	0.56	0.00	0.92	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	0	0.267	0.56	0.00	0.80	0.00	0.00	0.00	0.00
PSV - To VRS	0	0.267	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	0	0.004	0.56	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem	0	0.004	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Oil Subtotals	175			0.25		0.00	0.05	0.00	0.01

Total	**499**			**16.55**		**0.14**	**3.31**	**0.15**	**0.60**

Notes:
a. District Policy and Procedure 6100.061.1998.
b. A 80% efficiency is assigned to fugitive components Rule 331 implementation.
c. Emission control efficiencies for each component type are identified in FHC Control Factors (Ver. 2.0).

Processed By: JJM Date: 14-Mar-24

FUGITIVE HYDROCARBON EMISSION CALCULATIONS - CARB/KVB METHOD (Ver. 6.0)

Attachment: A-4
Permit Number: Pt70 PTO 16213
Facility: Morganti Lease

Input Data

Facility Information	*Value*	*Units*	*Reference*
Number of Active Wells at Facility	24	wells	Permit Application
Facility Gas Production	800,000	scf/day	Permit Application
Facility Dry Oil Production	800	bbls/day	Permit Application
Facility Gas to Oil Ratio (if > 500 then default to 501)	501	scf/bbl	Permit Application
API Gravity	10.3	degrees API	Permit Application
Facility Model Number	5	dimensionless	User Input
No. of Steam Drive Wells with Control Vents	0	wells	Permit Application
No. of Steam Drive Wells with Uncontrolled Vents	0	wells	Permit Application
No. of Cyclic Steam Drive Wells with Control Vents	0	wells	Permit Application
No. of Cyclic Steam Drive Wells with Uncontrolled Vents	0	wells	Permit Application
Composite Valve and Fitting Emission Factor	2.8053	lb/day-well	Table Below

Emission Factor Based on Lease Model

Lease Model	Valve Without Ethane	Fitting Without Ethane	Composite Without Ethane	Units
1	1.4921	0.9947	2.4868	lbs/day-well
2	0.6999	0.6092	1.3091	lbs/day-well
3	0.0217	0.0673	0.0890	lbs/day-well
4	4.5090	2.1319	6.6409	lbs/day-well
5	0.8628	1.9424	2.8053	lbs/day-well
6	1.7079	2.5006	4.2085	lbs/day-well

Model #1: Number of wells on lease is less than 10 and the GOR is less than 500.
Model #2: Number of wells on lease is between 10 and 50 and the GOR is less than 500.
Model #3: Number of wells on lease is greater than 50 and the GOR is less than 500.
Model #4: Number of wells on lease is less than 10 and the GOR is greater than 500.
Model #5: Number of wells on lease is between 10 and 50 and the GOR is greater than 500.
Model #6: Number of wells on lease is greater than 50 and the GOR is greater than 500.

Reference: CARB speciation profiles numbers 529, 530, 531, 532

CARB KVB ROC Potential to Emit

Emission Source	lb/day	TPY
Valves and Fittings[a]	13.47	2.46
Sumps, Wastewater Tanks and Well Cellars[b]	37.87	6.91
Oil/Water Separators[b]	0.00	0.00
Pumps/Compressors/Well Heads[a]	0.39	0.07
Enhanced Oil Recovery Fields	0.00	0.00
Total ROC Potential to Emit [c]	**51.73**	**9.44**

Notes:

a. Emissions amount reflect an 80% reduction due to Rule 331 implementation.
b. Emissions reflect control efficiencies where applicable.
c. Due to rounding, the totals may not appear correct

Unit Type Emission Calculations

Pumps, Compressors, and Well Heads Uncontrolled Emission Calculations

	Value	Units	Reference
Number of Wells	24	wells	Permit Application
Wellhead Emissions	0.2328	lb-ROC/day	Calculated Value
FHC from Pumps	0.0936	lb-ROC/day	Calculated Value
FHC from Compressors	1.6296	lb-ROC/day	Calculated Value
Total ROC Emissions	**1.96**	lb-ROC/day	Calculated Value

Well Cellars, Sumps, Covered Wastewater Tanks, and Oil/Water Separators

Separation Level	Heavy Oil Service	Light Oil Service	Units
Primary	0.0941	0.1380	lb ROC/ft^2-day
Secondary	0.0126	0.0180	lb ROC/ft^2-day
Tertiary	0.0058	0.0087	lb ROC/ft^2-day

WELL CELLARS			Level of Separation		
Equipment Type	**Number**	**Total Area (ft^2)**	**Primary**	**Secondary**	**Tertiary**
Well Cellars[(a)]	24	768	21.68		
	2	39		0.49	
	1	10		0.13	
	1	2,608			15.13
Daily ROC Emissions (lb/day)			**21.68**	**0.62**	**15.13**

Notes:

a. A 70% reduction is applied for implementation of Rule 344 (Sumps, Pits, and Well Cellars).

COVERED WASTEWATER TANKS			Level of Separation		
Equipment Type	**Number**	**Total Area (ft^2)**	**Primary**	**Secondary**	**Tertiary**
Covered Wastewater Tank[(a)]	0	0	0.00		
	0	0		0.00	
	0	0			0.00
Daily ROC Emissions (lb/day)			**0.00**	**0.00**	**0.00**

Notes:

a. A 85% reduction is applied.

COVERED WASTEWATER TANK WITH VAPOR RECOVERY			Level of Separation		
Equipment Type	**Number**	**Total Area (ft^2)**	**Primary**	**Secondary**	**Tertiary**
Covered Wastewater Tank with Vapor Recovery[(a)]	0	0	0.00		
	2	709		0.45	
	0	0			0.00
Daily ROC Emissions (lb/day)			**0.00**	**0.45**	**0.00**

Notes:

a. A 95% reduction is applied.

OIL AND WATER SEPARATORS		Type		
Equipment Type	**Total Throughput (MMgal)**	**Covered**	**Vapor Recovery**	**Open Top**
Oil and Water Separators [(a)(b)]	0	0.00		
	0		0.00	
	0			0.00
Daily ROC Emissions (lb/day)		**0.00**	**0.00**	**0.00**

Notes:

a. A 85% reduction is applied for covered, 85% for connected to vapor recovery, and 0% for open top.

b. Emission Factor of 560 lb-ROC/Mmgal

Processed By: JJM Date: 14-Mar-24

CRUDE OIL LOADING RACK EMISSION CALCULATIONS (Ver. 4.2)

Attachment: A-5
Permit Number: Pt70 PTO 16213
Facility: Morganti Lease

Rack Information

Rack Type	*Enter X Where Appropriate*	*S Factor*
Submerged Loading of a Clean Cargo Tank		0.50
Submerged Loading: Dedicated Normal Service	X	0.60
Submerged Loading: Dedicated Vapor Balance Service		1.00
Splash Loading of a Clean Cargo Tank		1.45
Splash Loading: Dedicated Normal Service		1.45
Splash Loading: Dedicated Vapor Balance Service		1.00

Input Data

Input data	*Value*	*Reference*
Saturation Factor	0.60	Previous Input, AP-42 Table 4.4-1
Molecular Weight	50	SBCAPCD Default for Crude Oil
True Vapor Pressure (psia)	0.840	Permit Application
Liquid Temperature (°F)	145	Permit Application
Loading Rate (bbl/hr)	160.00	Permit Application
Storage Capacity (bbl)	4,000	Permit Application
Daily Production (bbl)	800	Permit Application
Annual Production (bbl)	292,000	Permit Application
Vapor Recovery Efficiency	0.95	SBCAPCD
ROC/THC Reactivity	0.885	SBCAPCD Default for Crude Oil

Loading Rate Calculations

Calculated Information	*Value*	*Reference*
Daily Hours Loading (hours)	24.00	Calculated Value
Annual Hours Loading (hours)	1,825.00	Calculated Value
Loading Loss (lb / 1,000 gals)	0.5190	Calculated Value

Crude Oil Loading Rack ROC Potential to Emit

Controlled Potential to Emit	
lb/day	**3.70**
TPY	**0.14**

Processed By: JJM Date: 14-Mar-24

GLYCOL REBOILER EMISSION CALCULATIONS (Ver. 7.0)

Attachment: A-6
Permit Number: Pt70 PTO 16213
Facility: Morganti Lease

Heater Input Data

Information	*Value*	*Units*	*Reference*
Maximum Hourly Heat Input	0.100	MMBtu/hr	Permit Application
Daily Operating Schedule	24	hrs/day	Permit Application
Maximum Daily Heat Input	2.400	MMBtu/day	Calculated value
Yearly Load Factor (%)	100	%	Permit Application
Maximum Annual Heat Input	876.000	MMBtu/yr	Calculated value

Fuel Information

Information	*Value*	*Units*	*Reference*
Fuel	Produced Gas	N/A	Permit Application
High Heating Value	1,200	Btu/scf	Permit Application
Sulfur Content of Fuel	796.00	ppmvd as H_2S	Permit Application

Emission Factors

Pollutant	*Value*	*Units*	*Reference*
NO_x Emission Factor	0.0920	lb/MMBtu	Uncontrolled Emission Factor
ROC Emission Factor	0.0054	lb/MMBtu	AP-42, Section 1.4
CO Emission Factor	0.0393	lb/MMBtu	Uncontrolled Emission Factor
SO_x Emission Factor	0.1191	lb/MMBtu	Mass Balance Calculation
PM Emission Factor	0.0075	lb/MMBtu	AP-42, Section 1.4
PM_{10} Emission Factor	0.0075	lb/MMBtu	AP-42, Section 1.4
$PM_{2.5}$ Emission Factor	0.0075	lb/MMBtu	AP-42, Section 1.4

Boiler/Steam Generator Potential to Emit

Pollutant	lb/day	TPY
NO_x	0.22	0.04
ROC	0.01	0.00
CO	0.09	0.02
SO_x	0.29	0.05
PM	0.02	0.00
PM_{10}	0.02	0.00
$PM_{2.5}$	0.02	0.00

Processed By: JJM Date: March 2024

OILFIELD FLARE EMISSION CALCULATIONS (Ver. 2.0)

Attachment: A-7
Permit Number: Pt70 PTO 16213
Facility: Morganti Lease

Fuel Information

Data	*Value*	*Units*	*Reference*
Flare Throughput.....	0.113	MMscf/day	Permit Application
Gas Heat Content.....	1,200	Btu/scf	Permit Application
Sulfur Content.....	796	ppmv as H_2S	Permit Application

Heat Input Data

Value	*Units*	*Reference*
5.625	MMBtu/hour	Daily divided by 24 hr/day
135.000	MMBtu/day	Permit Application
49,275.000	MMBtu/year	Daily times 365 days/yr

Emission Factors

Pollutant	*lb/MMBtu*	*Reference*
NO_x	0.0680	AP-42, Table 13.5-1
ROC	0.2000	District February 2016 Flare Study
CO	0.3700	AP-42, Table 13.5-1
SO_x	0.1191	Mass Balance Calculation
PM	0.0200	SBCAPCD
PM_{10}	0.0200	AP-42, Chapter 1.4
$PM_{2.5}$	0.0200	AP-42, Chapter 1.4

Flare Potential to Emit

Pollutant	lb/day	TPY
NO_x	9.18	1.68
ROC	27.00	4.93
CO	49.95	9.12
SO_x	16.08	2.93
PM	2.70	0.49
PM_{10}	2.70	0.49
$PM_{2.5}$	2.70	0.49

Processed By: JJM Date: 14-Mar-24

OILFIELD FLARE EMISSION CALCULATIONS (Ver. 2.0)

Attachment: A-9
Permit Number: Pt70 PTO 16213
Facility: Morganti Lease

Fuel Information

Data	*Value*	*Units*	*Reference*
Flare Throughput	0.113	MMscf/day	Permit Application
Gas Heat Content	1,200	Btu/scf	Permit Application
Sulfur Content	796	ppmv as H_2S	Permit Application

Heat Input Data

Value	*Units*	*Reference*
5.625	MMBtu/hour	Daily divided by 24 hr/day
135.000	MMBtu/day	Permit Application
49,275.000	MMBtu/year	Daily times 365 days/yr

Emission Factors

Pollutant	*lb/MMBtu*	*Reference*
NO_x	0.0680	AP-42, Table 13.5-1
ROC	0.2000	District February 2016 Flare Study
CO	0.3700	AP-42, Table 13.5-1
SO_x	0.1191	Mass Balance Calculation
PM	0.0200	SBCAPCD
PM_{10}	0.0200	AP-42, Chapter 1.4
$PM_{2.5}$	0.0200	AP-42, Chapter 1.4

Flare Potential to Emit

Pollutant	lb/day	TPY
NO_x	9.18	1.68
ROC	27.00	4.93
CO	49.95	9.12
SO_x	16.08	2.93
PM	2.70	0.49
PM_{10}	2.70	0.49
$PM_{2.5}$	2.70	0.49

Processed By: JJM Date: 14-Mar-24

10.3 Fee Calculations

air pollution control district
SANTA BARBARA COUNTY

FEE STATEMENT

PT-70 No. 16213

FID: 03303 Morganti Lease / SSID: 02667

Device No.	Device Name	Fee Schedule	Qty of Fee Units	Fee per Unit	Fee Units	Max or Min. Fee Apply?	Number of Same Devices	Pro Rate Factor	Device Fee	Penalty Fee?	Fee Credit	Total Fee per Device
002826	Diluent Tank	A6	31.500	5.66	Per 1000 gallons	No	1	1.000	178.29	0.00	0.00	178.29
387518	Crude Oil Storage Tank	A6	42.000	5.66	Per 1000 gallons	No	1	1.000	237.72	0.00	0.00	237.72
002827	Wash Tank	A6	210.000	5.66	Per 1000 gallons	No	1	1.000	1,188.60	0.00	0.00	1,188.60
114581	Produced Water Tank	A6	42.000	5.66	Per 1000 gallons	No	1	1.000	237.72	0.00	0.00	237.72
002828	Crude Oil Storage Tank	A6	84.000	5.66	Per 1000 gallons	No	1	1.000	475.44	0.00	0.00	475.44
002860	Wastewater Tank	A6	42.000	5.66	Per 1000 gallons	No	1	1.000	237.72	0.00	0.00	237.72
002831	Emergency Wastewater Pit	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
100962	Loading Rack Sump	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
100963	Sumps	A2	1.000	98.79	Per equipment	No	2	1.000	197.58	0.00	0.00	197.58
002830	Glycol Reboiler	A4	0.100	741.08	Per 1 million Btu input	Min	1	1.000	98.15	0.00	0.00	98.15
106922	Boiler 2	A4	4.725	741.08	Per 1 million Btu input	No	1	1.000	3,501.60	0.00	0.00	3,501.60
108155	Heater Treater	A4	3.000	741.08	Per 1 million Btu input	No	1	1.000	2,223.24	0.00	0.00	2,223.24
008428	Flare	A4	5.625	741.08	Per 1 million Btu input	No	1	1.000	4,168.58	0.00	0.00	4,168.58
110345	Boiler 1	A4	3.000	741.08	Per 1 million Btu input	No	1	1.000	2,223.24	0.00	0.00	2,223.24
110346	Fugitive Hydrocarbon Components - CARB KVB	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
002862	Well Cellars	A2	1.000	98.79	Per equipment	No	24	1.000	2,370.96	0.00	0.00	2,370.96
002864	Oil and Gas Wellheads	A2	24.000	98.79	Per equipment	No	1	1.000	2,370.96	0.00	0.00	2,370.96

387520	Fugitive Hydrocarbon Components - CLP	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
002829	Crude Oil Loading Rack Electric Motor	A3	21.000	51.22	Per total rated hp	No	1	1.000	1,075.62	0.00	0.00	1,075.62
002859	Vapor Recovery Compressor	A3	15.000	51.22	Per total rated hp	No	1	1.000	768.30	0.00	0.00	768.30
100952	Tank Bottoms Pump	A3	1.500	51.22	Per total rated hp	Min	1	1.000	98.15	0.00	0.00	98.15
100964	Diluent Unloading Rack Electric Motor	A3	2.000	51.22	Per total rated hp	No	1	1.000	102.44	0.00	0.00	102.44
100955	Blowcase 1	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
100972	Blowcase 2	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
100959	Pig Launcher	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
100961	Two Phase Separator	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
100958	Glycol Absorber/Contactor	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
100968	Oil and Gas Separator	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
100957	Intake/Discharge Scrubbers	A2	1.000	98.79	Per equipment	No	3	1.000	296.37	0.00	0.00	296.37
100967	Oil and Gas Separators	A2	1.000	98.79	Per equipment	No	2	1.000	197.58	0.00	0.00	197.58
100966	Produced Gas Condensate Scrubber 2	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
100969	Produced Gas Condensate Scrubbers 4	A2	1.000	98.79	Per equipment	No	32	1.000	3,161.28	0.00	0.00	3,161.28
100954	Produced Gas Condensate Scrubber 1	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
100956	Produced Gas Condensate Scrubber 3	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
100970	Bowser Fuel Gas Scrubber 1	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
100971	Bowser Fuel Gas Scrubber 2	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
113346	Free Water Knockout	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
005286	Diluent Unloading Rack	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
109722	Crude Oil Loading Rack	A2	1.000	98.79	Per equipment	No	1	1.000	98.79	0.00	0.00	98.79
	Device Fee Sub-Totals =								**$27,187.76**	**$0.00**	**$0.00**	

	Device Fee Total =											**$27,187.76**

Permit Fee

Fee Based on Devices	**$27,187.76**

Fee Statement Grand Total = $27,187

Notes:

(1) Fee Schedule Items are listed in District Rule 210, Fee Schedule "A".
(2) The term "Units" refers to the unit of measure defined in the Fee Schedule.

10.4 IDS Database Emission Tables

Table 1
Permitted Potential to Emit (PPTE)

	NO_X	ROC	CO	SO_X	TSP	PM_{10}
Pt70 PTO 16213 – Morganti Lease						
lb/day	9.40	90.20	50.0	16.40	2.70	2.70
tons/year	1.72	15.93	9.13	2.99	0.50	0.50

Table 2
Facility Potential to Emit (FPTE)

	NO_X	ROC	CO	SO_X	TSP	PM_{10}
Pt70 PTO 16213 – Morganti Lease						
lb/day	9.40	90.20	50.0	16.40	2.70	2.70
tons/year	1.72	15.93	9.13	2.99	0.50	0.50

Table 3
Federal PT-70 Facility Potential to Emit (PT 70 FPTE)

	NO_X	ROC	CO	SO_X	TSP	PM_{10}
Pt70 PTO 16213 – Morganti Lease						
lb/day	9.40	27.01	50.04	16.40	2.70	2.70
tons/year	5.6	4.44	12.41	8.95	0.50	0.50

Table 4
Stationary Source Emissions

	NO_X	ROC	CO	SO_X	TSP	$PM_{10/2.5}$
PCEC Orcutt Hill and Casmalia Oil Fields Stationary Source						
lbs/day	1,342.39	3,894.13	2,767.02	172.77	92.15	92.15
tons/year	169.67	215.72	348.46	26.96	23.95	23.95

10.5 Equipment List

Pt70 PTO 16213 / FID: 03303 Morganti Lease / SSID: 02667

A PERMITTED EQUIPMENT

1 Oil and Gas Wellheads

Device ID #	**002864**	***Device Name***	**Oil and Gas Wellheads**
Rated Heat Input		*Physical Size*	24.00 Total Wells
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	24 wells, each equipped with a well cellar		

2 Storage Tanks

2.1 Wash Tank

Device ID #	**002827**	***Device Name***	**Wash Tank**
Rated Heat Input		*Physical Size*	5,000.00 BBL
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	37.6 feet in diameter by 24 feet high, connected to vapor recovery		

2.2 Crude Oil Storage Tank 1

Device ID #	**387518**	***Device Name***	**Crude Oil Storage Tank 1**
Rated Heat Input		*Physical Size*	1,000.00 BBL
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	21.5 feet in diameter by 12 feet high, connected to vapor recovery		

2.3 Crude Oil Storage Tank 2

Device ID #	**002828**	***Device Name***	**Crude Oil Storage Tank 2**
Rated Heat Input		*Physical Size*	2,000.00 BBL
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	29.8 feet in diameter by 16 feet high, connected to vapor recovery		

2.4 Wastewater Tank

Device ID #	**002860**	***Device Name***	**Wastewater Tank**
Rated Heat Input		*Physical Size*	1,000.00 BBL
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	21.5 feet in diameter by 16 feet high, connected to vapor recovery		

2.5 Produced Water Tank

Device ID #	**114581**	***Device Name***	**Produced Water Tank**
Rated Heat Input		*Physical Size*	1,000.00 BBL
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	21 feet in diameter by 16 feet high, connected to vapor recovery		

2.6 Diluent Tank

Device ID #	**002826**	***Device Name***	**Diluent Tank**
Rated Heat Input		*Physical Size*	750.00 BBL
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	15.5 feet in diameter by 24 feet high, connected to vapor recovery		

3 Vapor Recovery Compressor

Device ID #	**002859**	***Device Name***	**Vapor Recovery Compressor**
Rated Heat Input		*Physical Size*	15.00 Brake Horsepower
Manufacturer		*Operator ID*	
Model		*Serial Number*	CAS42810
Location Note			
Device Description			

4 Separators and Vessels

4.1 Two Phase Separator

Device ID #	**100961**	***Device Name***	**Two Phase Separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	4 feet in diameter by 18 feet length		

4.2 Oil and Gas Separator

Device ID #	**100968**	***Device Name***	**Oil and Gas Separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	4 feet in diameter by 12 feet length		

4.3 Oil and Gas Separators

Device ID #	**100967**	***Device Name***	**Oil and Gas Separators**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Two separators, 3.5 feet in diameter by 10 feet length		

4.4 Blowcase 1

Device ID #	**100955**	***Device Name***	**Blowcase 1**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	2 feet in diameter by 4 feet length, used for liquid removal		

4.5 Blowcase 2

Device ID #	**100972**	***Device Name***	**Blowcase 2**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Used for liquid removal		

4.6 Free Water Knockout

Device ID #	**113346**	***Device Name***	**Free Water Knockout**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	10 feet in diameter by 30 feet length		

4.7 Glycol Absorber/Contactor

Device ID #	**100958**	***Device Name***	**Glycol Absorber/Contactor**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	3 feet in diameter by 12.5 feet length		

5 Sumps and Pits

5.1 Well Cellars

Device ID #	**002862**	***Device Name***	**Well Cellars**
Rated Heat Input		*Physical Size*	32.00 Square Feet Cellar Area
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	24 well cellars, each with 32 square feet of surface area		

5.2 Sumps

Device ID #	**100963**	***Device Name***	**Sumps**
Rated Heat Input		*Physical Size*	19.63 Square Feet Sump Area
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Two sumps, each 5 feet in diameter		

5.3 Loading Rack Sump

Device ID #	**100962**	***Device Name***	**Loading Rack Sump**
Rated Heat Input		*Physical Size*	10.00 Square Feet Sump Area
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

5.4 Emergency Wastewater Pit

Device ID #	**002831**	***Device Name***	**Emergency Wastewater Pit**
Rated Heat Input		*Physical Size*	2,608.00 Square Feet Pit Area
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Volume of 2,100 bbls		

6 Loading Rack

6.1 Crude Oil Loading Rack

Device ID #	**109722**	***Device Name***	**Crude Oil Loading Rack**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Connected to the vapor recovery system, 160 bbl/hour loading rate		

6.2 Diluent Unloading Rack

Device ID #	**005286**	***Device Name***	**Diluent Unloading Rack**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

7 Combustion Equipment

7.1 Boiler 1

Device ID #	**110345**	***Device Name***	**Boiler 1**
Rated Heat Input	3.000 MMBtu/Hour	*Physical Size*	
Manufacturer	Ajax	*Operator ID*	
Model	HNP3000-W	*Serial Number*	55660
Location Note			
Device Description	Required to be maintained in out of service state due to non-compliance with Rule 361 emission standards, when operational fired on produced gas		

7.2 Boiler 2

Device ID #	**106922**	***Device Name***	**Boiler 2**
Rated Heat Input	4.720 MMBtu/Hour	*Physical Size*	
Manufacturer	Miura	*Operator ID*	
Model	LX-200SG	*Serial Number*	47S43346
Location Note			
Device Description	Required to be maintained in out of service state due to non-compliance with Rule 361 emission standards, when operational fired on produced gas		

7.3 Heater Treater

Device ID #	**108155**	***Device Name***	**Heater Treater**
Rated Heat Input	3.000 MMBtu/Hour	*Physical Size*	
Manufacturer	National Boiler	*Operator ID*	
Model	VFH	*Serial Number*	S1050283
Location Note			
Device Description	Required to be maintained in out of service state due to non-compliance with Rule 361 emission standards, when operational fired on produced gas		

7.4 Glycol Reboiler

Device ID #	**002830**	***Device Name***	**Glycol Reboiler**
Rated Heat Input	0.100 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Fired on produced gas		

7.5 Flare

Device ID #	**008428**	***Device Name***	**Flare**
Rated Heat Input	5.625 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Combusts produced gas		

8 Scrubbers

8.1 Produced Gas Condensate Scrubber 1

Device ID #	**100954**	***Device Name***	**Produced Gas Condensate Scrubber 1**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	5 feet in diameter by 10 feet length		

8.2 Produced Gas Condensate Scrubber 2

Device ID #	**100966**	***Device Name***	**Produced Gas Condensate Scrubber 2**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	2.5 feet in diameter by 3.5 feet length		

8.3 Produced Gas Condensate Scrubber 3

Device ID #	**100956**	***Device Name***	**Produced Gas Condensate Scrubber 3**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	2.5 feet in diameter by 6 feet length		

8.4 Produced Gas Condensate Scrubbers 4

Device ID #	**100969**	***Device Name***	**Produced Gas Condensate Scrubbers 4**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	32 scrubbers		

8.5 Bowser Fuel Gas Scrubber 1

Device ID #	**100970**	***Device Name***	**Bowser Fuel Gas Scrubber 1**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

8.6 Bowser Fuel Gas Scrubber 2

Device ID #	**100971**	***Device Name***	**Bowser Fuel Gas Scrubber 2**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

8.7 Intake/Discharge Scrubbers

Device ID #	**100957**	***Device Name***	**Intake/Discharge Scrubbers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Three scrubbers, 2 feet in diameter by 7 feet length		

9 Fugitives

9.1 Fugitive Hydrocarbon Components - CLP

Device ID #	**387520**	***Device Name***	**Fugitive Hydrocarbon Components - CLP**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Gas/Condensate Service Component Leakpaths: 65 valves accessible and inaccessible, 256 flanges/connections accessible and inaccessible, 1 compressor seals to atmosphere, 2 PSV to atmosphere/flare; Oil Service Component Leakpaths: 45 valves accessible and inaccessible, 130 flanges/connections accessible and inaccessible		

9.2 Fugitive Hydrocarbon Components - CARB KVB

Device ID #	**110346**	***Device Name***	**Fugitive Hydrocarbon Components - CARB KVB**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Valves, fittings and flanges, not directly associated with other permitted equipment items, which emit fugitive hydrocarbon emissions		

10 Electric Motors

10.1 Crude Oil Loading Rack Electric Motor

Device ID #	**002829**	***Device Name***	**Crude Oil Loading Rack Electric Motor**
Rated Heat Input		*Physical Size*	21.00 Brake Horsepower
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

10.2 Diluent Unloading Rack Electric Motor

Device ID #	**100964**	***Device Name***	**Diluent Unloading Rack Electric Motor**
Rated Heat Input		*Physical Size*	2.00 Brake Horsepower
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

10.3 Tank Bottoms Pump

Device ID #	**100952**	***Device Name***	**Tank Bottoms Pump**
Rated Heat Input		*Physical Size*	1.50 Brake Horsepower
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

11 Pig Launcher

Device ID #	**100959**	***Device Name***	**Pig Launcher**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

10.6 Permitted Wells

API	Designation	Operator Name	Current Type	Current Status	Field	Lease Name	Well Number	County
0408300658	56	PCEC	Oil & Gas	Idle	Casmalia	Morganti	56	Santa Barbara
0408300891	1	PCEC	Oil & Gas	Idle	Casmalia	Morganti	1	Santa Barbara
0408300893	3	PCEC	Oil & Gas	Idle	Casmalia	Morganti	3	Santa Barbara
0408300896	7	PCEC	Oil & Gas	Idle	Casmalia	Morganti	7	Santa Barbara
0408320982	69	PCEC	Oil & Gas	Idle	Casmalia	Morganti	69	Santa Barbara
0408320985	70	PCEC	Oil & Gas	Idle	Casmalia	Morganti	70	Santa Barbara
0408320419	63	PCEC	Oil & Gas	Idle	Casmalia	Morganti	63	Santa Barbara
0408320437	65	PCEC	Oil & Gas	Idle	Casmalia	Morganti	65	Santa Barbara
0408320481	67	PCEC	Oil & Gas	Idle	Casmalia	Morganti	67	Santa Barbara
0408320478	66	PCEC	Oil & Gas	Idle	Casmalia	Morganti	66	Santa Barbara
0408320324	61	PCEC	Oil & Gas	Idle	Casmalia	Morganti	61	Santa Barbara
0408320365	62	PCEC	Oil & Gas	Idle	Casmalia	Morganti	62	Santa Barbara
0408321621	75	PCEC	Oil & Gas	Idle	Casmalia	Morganti	75	Santa Barbara
0408320420	64	PCEC	Oil & Gas	Idle	Casmalia	Morganti	64	Santa Barbara
0408300894	4	PCEC	Oil & Gas	Idle	Casmalia	Morganti	4	Santa Barbara
0408300906	58	PCEC	Oil & Gas	Idle	Casmalia	Morganti	58	Santa Barbara
0408300698	11	PCEC	Oil & Gas	Idle	Casmalia	Morganti	11	Santa Barbara
0408300737	25	PCEC	Oil & Gas	Idle	Casmalia	Morganti	25	Santa Barbara
0408300634	12	PCEC	Oil & Gas	Idle	Casmalia	Morganti	12	Santa Barbara
0408300900	33	PCEC	Oil & Gas	Idle	Casmalia	Morganti	33	Santa Barbara
0408320511	68	PCEC	Oil & Gas	Idle	Casmalia	Morganti	68	Santa Barbara
0408321619	73	PCEC	Oil & Gas	Idle	Casmalia	Morganti	73	Santa Barbara
0408321406	71	PCEC	Oil & Gas	Idle	Casmalia	Morganti	71	Santa Barbara
0408321407	72	PCEC	Oil & Gas	Idle	Casmalia	Morganti	72	Santa Barbara