apcd air pollution control district
SANTA BARBARA COUNTY

DRAFT

PERMIT to OPERATE 9136-R10
and
PART 70 OPERATING PERMIT 9136

E&B Natural Resources Management Corporation
South Cuyama Gas Plant 10

South Cuyama State Designated Oilfield
3 miles Southwest of New Cuyama

OPERATOR

E&B Natural Resources Management Corporation

OWNERSHIP

E&B Natural Resources Management Corporation

Santa Barbara County
Air Pollution Control District

June 2023

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ABBREVIATIONS/ACRONYMS

AOS	Alternative Operating Scenario
AP-42	USEPA's *Compilation of Emission Factors*
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
District	Santa Barbara County Air Pollution Control District
dscf	dry standard cubic foot
E&B	E&B Natural Resources Management Corporation
EU	emission unit
°F	degree Fahrenheit
gal	gallon
GHG	greenhouse gases
gr	grain
Hallador	Hallador Production Company, the previous operator
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	mega (million)
MACT	Maximum Achievable Control Technology
MM	million
MW	molecular weight
NG	natural gas
NGL	natural gas liquids
NSPS	New Source Performance Standards
O_2	oxygen
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
VRS	vapor recovery system

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 permit (*Part 70 Operating Permit 9136*) as well as the District Operating Permit (*Permit to Operate 9136-R10*).

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

Part 70 Permitting: The initial Part 70 permit for the E&B Natural Resources Management Corporation's (E&B) Gas Plant 10 was issued January 28, 1998 in accordance with the requirements of the District's Part 70 operating permit program. This permit is the ninth renewal of the Part 70 permit, and may include additional applicable requirements and associated compliance assurance conditions. Also, this permit incorporates any Part 70 minor modifications since the last renewal, and is being issued as a combined Part 70 and District reevaluation permit. Gas Plant 10 is a part of the E&B - South Cuyama stationary source, which is a major source for VOC[1], NO_X and CO. Conditions listed in this permit are based on federally-enforceable 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.

Pursuant to the stated aims of Title V of the CAAA of 1990 (i.e., the Part 70 operating permit program), this 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 is a comprehensive document to be used as a reference by the permittee, the regulatory agencies and the public to assess compliance.

Greenhouse Gases - Rule 810 (Tailoring Rule). This permit reevaluation incorporates greenhouse gas emission calculations for the stationary source. These emissions establish baseline conditions under Rule 810, *Federal Prevention of Significant Deterioration*.

[1] VOC as defined in Regulation XIII has the same meaning as reactive organic compounds as defined in Rule 102. "ROC" is used in this document, but where used in the context of the Part 70 regulation, it means "VOC".

1.2 Facility Overview

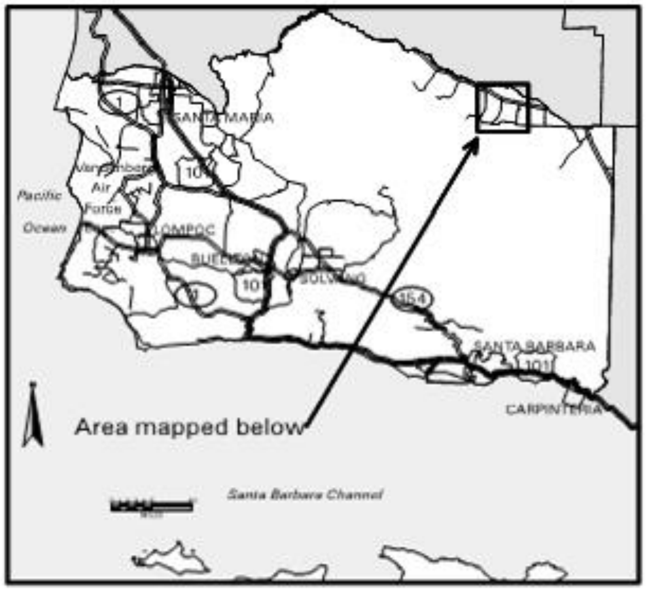
1.2.1 Facility Overview: E&B Natural Resources Management Corporation (E&B) is the sole owner and operator of the South Cuyama Stationary Source, which includes Gas Plant 10.

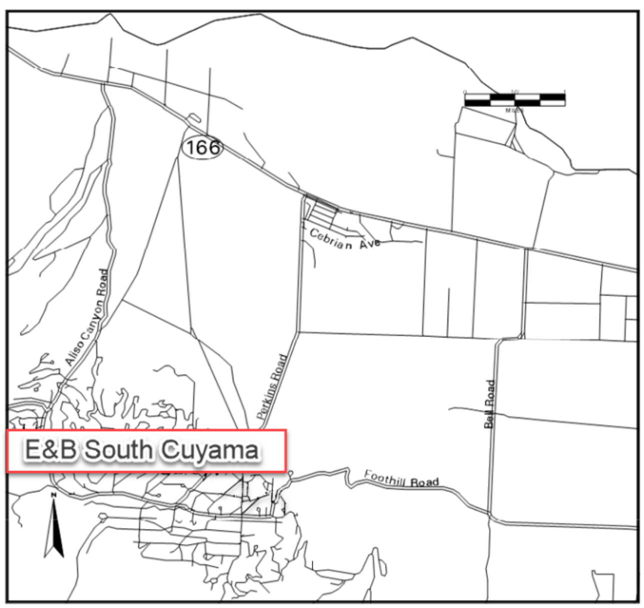
E&B Natural Resources Management Corporation
1600 Norris Road
Bakersfield, CA 93308

The South Cuyama Stationary Source, located at the South Cuyama State Designated Oilfield, is 3 miles southwest of the town of New Cuyama. For District regulatory purposes, the facility location is in the Northern Zone of Santa Barbara County[2]. Figure 1.1 shows the location of the facility.

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

Figure 1.1 - Location Map for the South Cuyama Stationary Source





The E&B - South Cuyama Stationary Source (SSID 1073) was constructed in the late 1940's and consists of the following facilities:

- South Cuyama Unit (FID 1074)
- Gas Plant 10 (FID 3202)
- Internal Combustion Engine (FID 8916)

The source consists of oil and gas wells and tank batteries where oil is separated from gas and water. The oil is sold and shipped via pipeline from the lease. Produced water is reinjected into the formation. Gas Plant 10 removes sulfur compounds, carbon dioxide, nitrogen, and water from the gas and strips out the NGLs. The NGLs are piped to Tank Farm #6 and blended with the produced oil. Dry gas is used for fuel and residual gas is sold or reinjected into one of the gas injection wells.

1.2.2 Facility Permit Overview: Table 1.1 provides a summary of the permits issued for this facility since the last permit reevaluation.

Table 1.1 - Permit History

PERMIT	FINAL ISSUED	PERMIT DESCRIPTION
PT-70 9136-R9	06/19/2020	Permit Reevaluation.

1.3 Emission Sources

The emissions sources at Gas Plant 10 consist of two glycol reboilers, an emergency flare and fugitive emissions from components such as compressor seals, pressure relief valves, process-line valves and flanges. 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 and also lists the potential emissions from non-permitted emission units.

The emission sources include Natural Gas Liquid processing equipment consisting of the following:

- Propane refrigeration system
- Hydrogen sulfide removal equipment
- Amine reboiler
- Nitrogen removal equipment
- Vapor recovery unit
- Flare
- Other equipment such as loading racks, storage tanks, scrubbers, pumps, and compressors
- Fugitive emission sources including valves, fittings, flanges, and other components in gaseous and liquid service

1.4 Emission Control Overview

Air quality emission controls are utilized at Gas Plant 10 Unit for a number of emission units. The emission controls employed at the facility include:

- Vapor Recovery System serving the glycol reboiler and the amine reboiler.

- A Fugitive 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.
- *Flare Minimization Plan* Consistent with District Rule 359
- Compliance with fuel sulfur content levels per District Rule 311 by using natural gas in combustion equipment with a sulfur content of 796 ppm or less to reduce SO_X emissions.

1.5 Offsets/Emission Reduction Credit Overview

Decision of Issuance (DOI) 0033 created NO_X, ROC, and CO ERCs from the electrification of the #12 Clark HRA-6T integral gas compressor engine.

Decision of Issuance (DOI) 0061-02 created NO_X, ROC, and CO ERCs from the electrification of four water injection pumps: two at the Machader Produced Water Plant and two at the Perkins Produced Water Plant. Two of the engines that drive the pumps were eliminated and two serve as standby engines and are limited to 200 hours/year each.

Decision of Issuance (DOI) 0086 created ROC ERCs by filling in twenty well cellars at the South Cuyama Unit. The well cellars were permanently removed, but the wells remain active.

ATC 14751 was issued final prior to the E&B - South Cuyama Stationary Source exceeding the offset thresholds of Regulation VIII due to a revision to Rule 802 in August 2016 and therefore ERCs were not required for the emissions associated with this permit. During the Source Compliance Demonstration Period, it was determined that the number of fugitive components installed were greater than the number authorized by ATC 14751, therefore an application for ATC 14751-01 was submitted for these additional components. The emissions from these additional components required emission offsets. As part of the issuance of Pt70 Reeval 9136-R9, it was determined that the equipment installed under PTO 14751 is outside the fence line of Gas Plant 10 and therefore the equipment was transferred to SCU under Pt70 PTO 7250-R11.

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. All 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 Hazardous Air Pollutants (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. (See *Section 5.6* for the Insignificant Emissions Unit list).

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 51.166 or 52.21. Gas Plant 10 is subject to the provisions of 40 CFR 60 Subpart KKK, which was not promulgated until June 24, 1985.

Therefore, fugitive emissions are not included in the federal PTE. The federal PTE does include all emissions from any insignificant emissions units. (*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. E&B 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. E&B 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 or before March 1st 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 MACT/HAPs: Part 70 permits also regulate emission of HAPs from major sources through the imposition of 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:

Frank Ronkese (Chief Financial Officer)
E&B Natural Resources Management Corporation
1600 Norris Road
Bakersfield, CA 93308

2.0 Process Description

2.1 Process Summary

Gas Plant 10 serves E&B's South Cuyama Unit oilfield. The plant removes hydrogen sulfide, carbon dioxide, nitrogen, water, and liquid hydrocarbons from the produced gas stream and provides dry natural gas. The dry gas stream is used as fuel, is re-injected or sold. Liquids are piped to Tank Farm #6 and blended with the produced oil. During emergencies, gas can be re-injected or flared.

Hydrogen Sulfide Removal: The inlet gas stream is sweetened in the hydrogen sulfide removal unit and compressed prior to entering the inlet hydrocarbon and water knockout vessel.

Water Removal: Ethylene glycol is injected in the hydrocarbon stream after sweetening and the water in the gas is absorbed on contact with the ethylene glycol. The ethylene glycol hydrocarbon stream is cooled and is routed to the ethylene glycol separator. The ethylene glycol is separated and routed to the field gas fired glycol reboiler where the absorbed water is removed. The dehydrated ethylene glycol is reinjected in the hydrocarbon stream. Regenerator stack vapors are recovered, compressed, and routed back into the field fuel system. The water recovered in the cooling stage of the compression is collected and routed to the water disposal system. The liquid hydrocarbon stream from the ethylene glycol separator enters the stabilizer and is routed to Tank Farm #6 where it is blended with the produced crude. The flash gas collected by VRU is sent to field fuel system or to gas re-injection.

Carbon Dioxide Removal: Produced gas rich in carbon dioxide (CO_2) enters the inlet separator. Liquids that are collected by the separator are piped to an existing slop tank. The gas from the separator then enters the absorber, where it comes into contact with lean amine. The amine absorbs the CO_2 and a small amount of hydrocarbons and hydrogen sulfide from the gas stream. The gas that has been stripped of the CO_2 is piped from the absorber to E&B's existing LPG skid for removal of gas liquids.

The amine rich in CO_2 from the absorber is piped to the flash tank, where any entrained gases are flashed off. The flash gas collected by VRU is sent to field fuel system or to gas re-injection. The rich amine stream is then processed through the charcoal and particulate sock filters before entering the amine still, which is connected to the amine reboiler.

Based on a produced gas flow of 2.0 MMscf/day into the system, the discharge of gasses from the amine still are anticipated to be 50,400 scf/day, consisting of 91% carbon dioxide, 8% water, 0.26% hydrocarbons, and 117 ppmv H_2S. These gasses are the gases are sent the to field fuel system or to gas re-injection. The lean amine is returned to the absorber.

Nitrogen Removal: Produced gas from the South Cuyama Unit is metered prior to being processed through one of four skid mounted gas adsorbtion towers. Each tower contains four beds of catalyst that are used to lower the nitrogen content of the produced gas to the gas purchaser's standards. Four gas streams exit the adsorbers:

(1) A fuel gas stream is removed from the adsorber with a vacuum compressor, piped through a 3,000 gallon surge tank, and then compressed. The gas is either used as fuel or re-injected.

(2) A sales gas stream with a nitrogen content of 3% exits the adsorbtion towers and is sent to the sales pipeline.

(3) A recycle stream passes through a 3,000 gallon recycle tank prior to being sent by the recycle blower to the Gas Plant 10 inlet.

(4) Nitrogen from the system goes to a waste gas compressor and is either reinjected into producing formation or blended with the fuel to the microturbine. The only emissions are associated with fugitive components.

2.2 Support Systems

Support units at Gas Plant 10 consist of the following:

2.2.1 Vapor Recovery Systems: Gas Plant 10 includes a vapor recovery system that collects vapors from the glycol reboiler and the amine reboiler. Recovered vapors are routed the gas is sent to the field fuel system or to gas re-injection.

2.2.2 Flare: Gas Plant 10 includes a flare for disposing of gas during planned gas plant turn-around and emergency process upsets. This flare is subject to District Rule 359. On May 11, 1995, the District approved a Flare Minimization Plan for Gas Plant 10.

2.3 Maintenance/Degreasing Activities

Pollutant emitting maintenance activities such as coatings, degreasing, and coating surface preparation associated with the E&B Stationary Source are included in the permit for the South Cuyama Unit (PTO 7250).

2.4 Planned Process Turnarounds

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

2.5 Other Processes

2.5.1 Unplanned Activities/Emissions: E&B does not anticipate or foresee any circumstances that would require use of special equipment and result in excess emissions other than emergency flaring as noted in Section 2.2.2.

2.6 Detailed Process Equipment Listing

Refer Attachment 10.4 for a complete listing of all permitted equipment.

3.0 Regulatory Review

3.1 Rule Exemptions Claimed

- District Rule 202 (*Exemptions to Rule 201*): Rule 202.D.6 requires E&B 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. Such records shall be made available to the District upon request. As of December 2022, the *de minimis* total at the E&B South Cuyama Stationary Source is 12.70 lbs ROC/day.

- District Rule 202 (Exemptions to Rule 201): The following equipment are exempt from the requirements to obtain a District permit. An exemption from permit, however, does not grant relief from any applicable prohibitory rule unless specifically exempted by that prohibitory rule. (See Attachment 10.4 of this permit for a complete equipment list.):
  - Abrasive Blasting Unit (Rule 202.H.3).
  - Storage of drums of lubrication oils (Rule 202.V.3).
  - Storage of various types of oils with initial boiling point 300° F or greater (Rule 202.V.1).
  - Painting and solvent use for maintenance activities (Rule 202.D.3).

- District Rule 321 (Solvent Cleaning Operations): Rule 321.B.4 exempts solvent wipe cleaning operations.

- District Rule 331 (Fugitive Emission Inspection and Maintenance): The following exemptions were applied for in E&B's *Inspection and Maintenance Plan* and approved by the District:
  - Rule 331.B.2.b for components buried below the ground.
  - Rule 331.B.4 for components that are unsafe to monitor.

- District Rule 343 (*Petroleum Storage Tank Degassing*): Rule 343 provides an exemption for pressure vessels operated with a normal working pressure of at least 15 psig without vapor loss to the atmosphere provided documentation is provided according to the record keeping and reporting requirements of the rule. In addition the rule provides an exemption for fixed roof tanks without vapor recovery.

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*)}: Compliance with District Regulation VIII (*New Source Review*), ensures that future modifications to the facility will comply with these regulations.

3.2.2 40 CFR Part 60 {*New Source Performance Standards*}: The ROC fugitive emission components at the facility are subject to NSPS Subpart KKK (Equipment Leaks of VOC at Onshore Natural Gas Processing Plants), because of modifications carried out under ATC 7214 as issued in 1990.

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, a National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Oil and Natural Gas Production and Natural Gas Transmission and Storage. This facility qualifies as a Natural Gas Processing Plant per the MACT, however the previous operator submitted information in July 2000 indicating its source is exempt from sections 63.764 (c)(1) *Glycol Dehydration Units* and section 63.760 (b)(2) *NGL Storage Tanks* of the MACT. On October 20, 2000 the District issued a letter to Hallador (the previous owner of Gas Plant 10) agreeing with these exemptions.

3.2.5 40 CFR Part 64 {*Compliance Assurance Monitoring*}: This rule became effective on April 22, 1998. Compliance with this rule is required during the first permit renewal or the next significant permit revision for sources that had initial Part 70 applications deemed complete before April 22, 1998. 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 Gas Plant 10. Table 3.1 lists the federally-enforceable District promulgated rules that are "generic" and apply to Gas Plant 10. Table 3.2 lists the federally-enforceable District promulgated rules that are "unit-specific" that apply to Gas Plant 10. These tables are based on data available from the District's administrative files and from E&B's Part 70 Operating Permit renewal application. These tables also include the adoption dates of the rules.

In its Part 70 permit application E&B certified compliance with all existing District rules and permit conditions. This certification is also required of E&B 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 Sub-Chapter 6, Sections 92000 through 92530: These sections specify the standards by which abrasive blasting activities are governed throughout the State. All abrasive blasting activities at Gas Plant 10 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 crude oil, condensate, and produced water separation and storage facilities. This facility is subject to the provisions of this regulation. There are no tanks or separators at this facility. 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. The reciprocating natural gas compressors at this facility satisfy the requirements of the CARB regulation through annual flow rate testing of the compressor rod packings/seals for each unit. See permit condition 9D.14 for flow rate testing requirements.

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. Table 3.3 lists the non-federally-enforceable District rules that apply to Gas Plant 10.

3.4.2 Rules Requiring Further Discussion:

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 which may cause the issuance of air contaminants. The equipment included in this permit is listed in Attachment 10.4. 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. This rule is not federally-enforceable.

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 the District rules and regulations. To the best of the District's knowledge, E&B 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 one on the Ringlemann Chart or of such opacity to obscure an observer's view to a degree equal to or greater than a reading of one on the Ringlemann Chart. The flare is subject to this rule. Compliance will be assured by requiring visible emissions inspections of the flare per Condition 9.B.2

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 in excess of 0.2-percent as SO_2 (by volume) and 0.3 gr/scf (at 12% CO_2) respectively. Sulfur emissions due to the combustion of gas with sulfur content less than 796 ppmv as S will comply with the SO_2 limit.

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.

Rule 311 (*Sulfur Content of Fuels*): This rule limits the sulfur content of fuels combusted at Gas Plant 10 to 0.5% (by wt.) for liquids fuels and 50 gr/100 scf (calculated as H_2S) {or

796 ppmvd} for gaseous fuels. Sulfur content (calculated as H_2S) of the gas used as fuel by E&B usually contains no more than 4 ppmvd. The untreated field gas is typically under 200 ppmvd. In addition, E&B is required to provide the District annually with measured data on sulfur content of fuel used, liquid or gaseous.

Rule 317 (*Organic Solvent*): This rule sets specific prohibitions against the usage of both photochemically and non-photochemically reactive organic solvents (40 lb/day and 3,000 lb/day respectively). Solvents may be used at Gas Plant 10 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. To demonstrate compliance with this rule, E&B is required to maintain detailed daily solvent usage records (along with the solvent's MSDS) and submit them annually to the District. See note below.

Rule 321*(Solvent Cleaning Operations)*: This rule was revised to fulfill the commitment in the Clean Air Plans to implement requirements for solvent cleaning machines and solvent cleaning. The revised rule contains solvent reactive organic compounds (ROCs) content limits, revised requirements for solvent cleaning machines, and sanctioned solvent cleaning devices and methods. These provisions apply to solvent cleaning machines and wipe cleaning.

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. E&B is required to maintain records to ensure compliance with this rule. See note below.

Note*: District solvent rules (317, 322, 323.1, & 324) are applicable to this stationary source. The compliance requirements for these rules are contained in PTO 7250, and are applicable to the solvent use on equipment covered by this permit.*

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. Gas at Gas Plant 10 is sold or used within the facility for fuel, re-injected, or flared. Therefore, the equipment included in this permit is in compliance with this rule.

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 will be demonstrated through inspections and recordkeeping.

Rule 331 (*Fugitive Emissions Inspection and Maintenance*): The piping components and pumps in hydrocarbon service are subjected to the latest District-approved Inspection and Maintenance (I&M) program. Ongoing compliance with the many provisions of this rule will be assessed via inspection by District personnel using an organic vapor analyzer and through analysis of operator records. The District approved the original Fugitive Emissions I&M Plan for this facility on January 21, 1993 and has approved subsequent updates.

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 shall be based on site inspections.

Rule 359 (Flares and Thermal Oxidizers): The provisions of this rule shall apply to the use of flares and thermal oxidizers at oil and gas production sources, petroleum refinery and related sources, natural gas services, transportation sources, and the wholesale trade in petroleum / petroleum products. The flare at this facility is subject to this rule.

Rule 360 (*Emissions Of Oxides Of Nitrogen From Large Water Heaters And Small Boilers*): This rule applies to any person who supplies, sells, offers for sale, installs, or solicits the installation of any new water heater, boiler, steam generator or process heater for use within the District with a rated heat input capacity greater than or equal to 75,000 Btu/hour up to and including 2,000,000 Btu/hour. The glycol reboilers and the amine reboiler are not subject to this rule since these units were installed prior to October 18, 2003.

Rule 361 (*Small Boilers, Steam Generators, and Process Heaters*): This rule shall apply to any boiler, steam generator, and process heater with a rated heat input capacity of greater than 2 million British thermal unit per hour and less than 5 million British thermal unit per hour. There are no units at this facility subject to this rule.

Rule 505 (*Breakdown Conditions*): This rule describes the procedures that E&B must follow when a breakdown condition occurs to any emissions unit associated with this facility. A breakdown condition is defined as an unforeseeable failure or malfunction of (1) any air pollution control equipment or related operating equipment which 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 was adopted January 20, 2011 *(revised June 20, 2013)* to incorporate 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: Since the previous permit renewal, District inspections of this facility were conducted on March 19, 2020 and March 18, 2021. The inspection reports indicate no enforcement actions were issued to this facility during these inspections.

3.5.2 Enforcement Actions: There have been no enforcement actions issued to this facility since issuance of the previous permit renewal.

3.5.3 Variances/Significant Hearing Board Actions: There have been no variances or hearing board actions associated with this facility since issuance of the previous permit renewal.

Table 3.1 - Generic Federally-Enforceable District Rules

Generic Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
RULE 101: Compliance by Existing Installations	All emission units	Emission of pollutants	June 21, 2012
RULE 102: Definitions	All emission units	Emission of pollutants	August 25, 2016
RULE 103: Severability	All emission units	Emission of pollutants	October 23, 1978
RULE 201: Permits Required	All emission units	Emission of pollutants	June 21, 2012
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	August 25, 2016
RULE 203: Transfer	All emission units	Change of ownership	April 17, 1997
RULE 204: Applications	All emission units	Addition of new equipment of modification to existing equipment.	August 25, 2016
RULE 205: Standards for Granting Permits	All emission units	Emission of pollutants	April 17, 1997
RULE 206: Conditional Approval of Authority to Construct or Permit to Operate	All emission units	Applicability of relevant Rules	October 15, 1991
RULE 207: Denial of Applications	All emission units	Applicability of relevant Rules	October 23, 1978
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.	April 17, 1997
RULE 212: Emission Statements	All emission units	Administrative	October 20, 1992
RULE 301: Circumvention	All emission units	Any pollutant emission	October 23, 1978
RULE 302: Visible Emissions	All emission units	Particulate matter emissions	June 1981
RULE 303: Nuisance	All emission units	Emissions that can injure, damage or offend.	October 23, 1978
RULE 304: Particulate Matter – Northern Zone	Each PM Source	Emissions of PM in effluent gas	October 23, 1978
RULE 309: Specific Contaminants	All emission units	Combustion contaminant emission	October 23, 1978
Rule 310: Odorous Organic Sulfides	All emission units	Combustion contaminant emission	October 23, 1978

Generic Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
RULE 311: Sulfur Content of Fuel	All combustion units	Use of fuel containing sulfur	October 23, 1978
RULE 317: Organic Solvents	Emission units using solvents	Solvent used in process operations.	October 23, 1978
RULE 321: Solvent Cleaning Operations	Emission units using solvents.	Solvent used in process operations.	June 21, 2012
RULE 322: Metal Surface Coating Thinner and Reducer	Emission units using solvents.	Solvent used in process operations.	October 23, 1978
RULE 323.1: Architectural Coatings	Paints used in maintenance and surface coating activities.	Application of architectural coatings.	January 1, 2015
RULE 324: Disposal and Evaporation of Solvents	Emission units using solvents.	Solvent used in process operations.	October 23, 1978
RULE 353: Adhesives and Sealants	Emission units using adhesives and solvents.	Adhesives and sealants used in process operations.	June 21, 2012
RULE 505.A, B1, D: Breakdown Conditions	All emission units	Breakdowns where permit limits are exceeded or rule requirements are not complied with.	October 23, 1978
RULE 603: Emergency Episode Plans	Stationary sources with PTE greater than 100 tpy	E&B South Cuyama is a major source.	June 15, 1981
RULE 810: Federal Prevention of Significant Deterioration	New or modified emission units	Major modifications	June 20, 2013
REGULATION VIII: New Source Review	All emission units	Addition of new equipment of modification to existing equipment. Applications to generate ERC Certificates.	August 25, 2016
REGULATION XIII (RULES 1301-1305): Part 70 Operating Permits	All emission units	E&B South Cuyama is a major source.	August 25, 2016

Table 3.2 - Unit-Specific Federally-Enforceable District Rules

Unit-Specific Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
RULE 325: Crude Oil Production and Separation	All equipment used to handle and process natural gas.	Equipment that handles produced gas.	January 18, 2001
RULE 331: Fugitive Emissions Inspection & Maintenance	All components (valves, flanges, seals, compressors and pumps) used to handle oil and gas:	Components emit fugitive ROCs.	Dec 10, 1991
RULE 359: Flares and Thermal Oxidizers	Flare	Flare is in operation at a gas plant related to oil and gas production.	June 28, 1994
Rule 360: Boilers, Water Heaters, and Process Heaters (Between 2-5 MMBtu/hr)	Water heaters, boilers, steam generators or process heaters with a rated heat input capacity greater than or equal to 75,000 Btu/hour up to and including 2,000,000 Btu/hour.	Any new equipment item covered by this rule must certify compliance with the rule emission limits.	March 15, 2018

Table 3.3 - Non-Federally-Enforceable District Rules

Requirement	Affected Emission Units	Basis for Applicability	Adoption Date
RULE 210: Fees	All emission units	Administrative	March 17, 2005
RULE 212: Emission Statements	All emission units	Administrative	October 20, 1992
RULE 310: Odorous Organic Sulfides	All emission units	Emission of organic sulfides	January 12, 1976
RULES 501-504: Variance Rules	All emission units	Administrative	October 23, 1978
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.	August 4, 1978
RULES 506-519: Variance Rules	All emission units	Administrative	August 14, 1978

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
- Existing process monitors needed to ensure compliance

A review and analysis of material balances, potential breakdown scenarios, and design considerations for safety and system reliability were not performed due to the lack of any regulatory mandate. 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 7/13/98 (ver. 1.1) were used to determine the non-methane, non-ethane fraction of THC.

4.2 Stationary Combustion Sources

The only stationary combustion sources at Gas Plant 10 are an amine reboiler, two glycol reboilers, and an emergency flare.

<u>External Combustion Units</u>: There are three external combustion units at Gas Plant 10, a 0.675 MMBtu/hr glycol reboiler, a 0.175 MMBtu/hr glycol reboiler and a 0.650 MMBtu/hr amine reboiler. These units are not subject to Rule 360 emission standards.

The emission factors for the glycol reboilers are based on USEPA AP-42, Section 1.4 (November, 1995). The calculation methodology is the same for all the units and follows below (see also Section 10.1):

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

<u>where:</u> 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 values (1050 Btu/scf)

Attachment 10.2 contains an emission spreadsheet that provides additional emission calculation details.

<u>Flare</u>: The flare is rated at 262.5 MMBtu/hr. The flare is subject to Rule 359 standards. E&B has a District approved *Flare Minimization Plan* and *Flare Volume Monitoring Plan* in place as required by this rule. The emission tables include permitted emissions for planned flaring based on the target flare volumes from the *Flare Minimization Plan*. No emissions estimates were given for unplanned flaring, therefore permitted emissions are zero for unplanned flaring events. Flaring is extremely rare since upset conditions trigger diverting of gas to reinjection wells, therefore no daily emission limits have been calculated.

The emission factors for the flare are based on USEPA AP-42, Section 13.5. The calculation methodology is the same as shown above for the glycol reboilers. SO_X emissions are calculated on a mass balance basis assuming total sulfur content of 796 ppmv as H_2S. Attachment 10.2 contains an emission spreadsheet that provides additional emission calculation details.

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 emission factors pursuant to 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*).

The component leak-path count was taken from ATC 7214 and updated based on information supplied by the previous operator because the original ATC estimate was incorrect. The components are in Gas/Condensate service at this facility. The calculation methodology for the fugitive emissions is:

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

where:

ER =	emission rate (lb/period)
EF =	ROC emission factor (lb/clp-day)
CLP =	component leak-path (clp)
CE =	control efficiency
HPP =	operating hours per time period (hrs/period)

An emission control efficiency of 80-percent is credited to all components that are safe to monitor (as defined per Rule 331) due to the implementation of a District-approved Inspection and Maintenance (I&M) program for leak detection and repair consistent with Rule 331 requirements. Unsafe to monitor components are not eligible to receive I&M control credit. Ongoing compliance is determined in the field by inspection with an organic vapor analyzer and verification of operator records. Attachment 10.2 contains an emission spreadsheet that provides additional emission calculation details.

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 7/13/98 (ver. 1.1) were used to determine the non-methane, non-ethane fraction of THC.

4.4 Other Emission Sources

4.4.1 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. These emissions are included in 7250-R12.

4.4.2 Surface Coating: Surface coating operations typically include normal touch up activities. Entire facility painting programs are also performed. These emissions are included in PTO 7250-R12.

4.4.3 Abrasive Blasting: Abrasive blasting with CARB certified sands may be performed as a preparation step prior to surface coating. These emissions are included in 7250-R12.

4.5 Vapor Recovery/Control Systems

The vapor recovery system includes all piping, valves, and flanges associated with the vapor recovery system. Vapors from the glycol reboiler and amine reboiler exhaust are sent to the field fuel system or to gas re-injection.

4.6 BACT/NSPS/NESHAP/MACT

The fugitive components triggered best available control technology (BACT) during the 1990/1991 gas plant modification. Implementation of a *Fugitive Inspection and Maintenance Plan* constituted BACT for that modification. Future modifications at Gas Plant 10 will be subject to New Source Review including BACT review.

In addition, as described in Section 3.2, Gas Plant 10 is subject to Subpart KKK of the New Source Performance Standards (NSPS). No other emission units are subject to NSPS, National Emission Standards for Hazardous Air Pollutants (NESHAPS), or Maximum Achievable Control Technology (MACT) requirements.

4.7 CEMS/Process Monitoring/CAM

4.7.1 <u>CEMS</u>: There are no CEMS at this facility.

4.7.2 <u>Process Monitoring</u>: Compliance with the permitted heat input limitations for the glycol reboilers is determined through the use of fuel use meters. Compliance with throughput limitations for natural gas is determined with gas throughput meters. Truck tickets are used to determine compliance with throughput limitations for NGL production and NGL loading. It is important that fuel use and throughput meters are well maintained and calibrated to ensure that the required accuracy and precision of the devices are within specifications. The meters shall be calibrated and maintained in good working order. To implement the calibration and maintenance requirements E&B 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 shall be utilized. E&B has an approved *Process Monitor Calibration and Maintenance Plan*.

Compliance with total sulfur limits is based on the H_2S gas analyzer operated by Southern California Gas Company as specified in Section 9.C.1 of this permit.

Compliance with E&B's *Flare Minimization Plan* is determined through flare volume monitoring pursuant to E&B's *Flare Volume Monitoring Plan*.

4.7.3 <u>CAM</u>: Gas Plant 10 is not subject to the USEPA's Compliance Assurance Monitoring (CAM) rule (40 CFR 64) requirements because none of the equipment at the facility emits more than 100 tons/year of NO_X or ROC, or 100 tons/year of CO. This is based on both pre-control and post-control emissions.

4.8 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.

At a minimum, the process streams below are required to be sampled and analyzed on a periodic basis, per District Rules and standards:

- Heating Value of Gaseous Fuels: *Annual* analysis for heating content of fuel burned.
- Fuel Gas: An existing Southern California Gas Company H_2S gas analyzer is primarily used to monitor the H_2S content of processed field gas combusted in fuel burning equipment. Daily H_2S colorimetric gas detection tube tests are used when the Southern California Gas analyzer is non-operational or registering alarm conditions. An annual total sulfur analysis by ASTM D-1072 or other method approved by the District is required.

All sampling and analyses are required to be performed according to District approved procedures and methodologies. Typically, the appropriate ASTM methods are acceptable. It is important that all sampling and analysis be traceable by chain of custody procedures.

4.9 Part 70 Engineering Review: Hazardous Air Pollutant Emissions

Hazardous air pollutant emissions from the different categories of emission units at Gas Plant 10 are based on emission factors listed in the USEPA's *AP-42 (5th Ed.,11/95 & 6/97)* guideline volumes. Factors listed in *California Air Toxics Emission Factors (April, 1995)*, (*CATEF*) have been used where the *AP-42* does not list the appropriate factors. If neither *AP-42* nor *CATEF* addresses the applicable HAP emission factors, the HAP emissions are computed based on USEPA's *Air Emission Species Manual, Vol.1 (VOC Species Profiles, 2nd.Ed.,2/90).*

Potential HAP emissions from each emissions unit at the plant are computed and listed in Section 5. The emission factors for each emission category are shown in Section 5. These totals are estimates only, they are not limitations.

5.0 Emissions

5.1 General

Section 5.2 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 10.3 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]

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

- Reactive Organic Compounds (ROC)
- Carbon Monoxide (CO)
- Sulfur Oxides (SO_X) [4]
- Particulate Matter (PM) [5]
- Particulate Matter smaller than 10 microns (PM_{10})
- Particulate Matter smaller than 2.5 microns ($PM_{2.5}$)
- Greenhouse Gases (GHG as CO_2e)

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 is provided in Attachment 10.1 and detailed calculation spreadsheets are provided in Attachment 10.2. Table 5.1-1 provides the basic operating characteristics. Table 5.1-2 provides the specific emission factors. Table 5.1-3 shows 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 the facility were analyzed. This analysis looked at 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.

5.4 Part 70: Federal Potential to Emit for the Facility

Table 5.3 lists the federal Part 70 potential to emit. All project emissions, except fugitive emissions, are counted in the federal definition of potential to emit. However, fugitives are counted in the federal PTE if the facility is subject to any applicable NSPS or NESHAP requirement. The EPA published the Tailoring Rule on June 3, 2010 to establish the applicability criteria for permitting requirements for greenhouse gas (GHG) emissions. The GHG PTE of the facility has been calculated in order to implement the requirements of the Tailoring Rule.

5.5 Part 70: Hazardous Air Pollutant Emissions for the Facility

Total emissions of hazardous air pollutants (HAP) are computed based on the factors listed in Table 5.4 for each type of emissions unit. Potential HAP emissions, based on the worst-case scenario listed in Section 5.3 above, are shown in table 5.4.

5.6 Exempt Emission Sources/Part 70 Insignificant Emissions

Equipment/activities exempt pursuant to Rule 202 include maintenance operations involving surface coating. This E&B Stationary Source includes the following District permit-exempt and Part 70 insignificant equipment with emissions: (Re: District Rule 202). A complete list of exempt equipment is included in Attachment 10.5 of this permit.

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

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

- Abrasive Blasting Unit (Section H.3)
- Storage of Drums of Lubrication Oils (Section V.3)
- Storage of various types of oils with Initial Boiling Point 300° F or greater (Section V.1)

In addition, such as maintenance operations using paints and coatings contribute to the facility emissions.

Table 5.1-1
Part 70 / Permit to Operate 9136 - R10
E&B Gas Plant 10
Equipment Description

Equipment Category	Description	Device ID#	Usage Data Parameter	Capacity	Size	Units	Service	Load	Hours Per day	qtr	year
Fugitive Hydrocarbon Components - Gas/Condensate Service											
	Valves	008323	-	-	851	clp's	gas	1	24	2,190	8,760
	Valves (unsafe to monitor)	008325	-	-	14	clp's	gas	1	24	2,190	8,760
	Connections	008327	-	-	6,414	clp's	gas	1	24	2,190	8,760
	Connections (unsafe to monitor)	008328	-	-	62	clp's	gas	1	24	2,190	8,760
	Compressor seals (to atm)	008329	-	-	5	clp's	gas	1	24	2,190	8,760
	Compressor seals (sealed)	008330	-	-	18	clp's	gas	1	24	2,190	8,760
	Pump Seals	008331	-	-	4	clp's	gas	1	24	2,190	8,760
	Relief Valves (to atm)	008332	-	-	27	clp's	gas	1	24	2,190	8,760
Fugitive Hydrocarbon Components - Oil Service											
	Valves	105000	-	-	90	clp's	oil	1	24	2,190	8,760
	Connections	105001	-	-	80	clp's	oil	1	24	2,190	8,760
External Combustion Equipment			%S	MMscf							
	Glycol Reboiler: H-101.	008333	0.001	5.63	0.675	MMBtu/hr	na	1	24	2,190	8,760
	Glycol Reboiler.	008334	0.001	1.46	0.175	MMBtu/hr	na	1	24	2,190	8,760
	Amine Reboiler	105021	0.001		0.650	MMBtu/hr	na	1	24	2,190	8,760
Flare											
	Planned Flaring[1]	101060	0.0796	69.88	262.5	MMBtu/hr	na	1	na	na	279.5
	Unplanned/Emergency Flaring	101060	0.0796	0.00	262.5	MMBtu/hr	na	0	0	0	0

1. The volume of gas flared is consistent with E&B's Flare Minimization Plan.

Table 5.1-2
Part 70 / Permit to Operate 9136 - R10
E&B Gas Plant 10
Emission Factors

		Device			Emission Factors							Section 10.1
Equipment Category	Description	ID#	NOx	ROC	CO	SOx	PM	PM_{10}	$PM_{2.5}$	GHG	Units	Reference
Fugitive Hydrocarbon Components - Gas/Condensate Service												
	Valves	008323		0.080							lb/day/clp	C
	Valves (unsafe to monitor)	008325		0.402							lb/day/clp	C
	Connections	008327		0.005							lb/day/clp	C
	Connections (unsafe to monitor)	008328		0.025							lb/day/clp	C
	Compressor seals (open)	008329		0.432							lb/day/clp	C
	Compressor seals (sealed)	008330		0.000							lb/day/clp	C
	Pump Seals	008331		0.521							lb/day/clp	C
	Relief Valves (open)	008332		0.139							lb/day/clp	C
Fugitive Hydrocarbon Components - Oil Service												
	Valves (Oil Service)	105000		0.028							lb/day/clp	C
	Connections (Oil Service)	105001		0.005							lb/day/clp	C
External Combustion Equipment												
	Glycol Reboiler: H-101.	008333	0.092	0.0054	0.039	0.0016	0.0075	0.0075	0.0075	117.10	lb/MMBtu	A
	Glycol Reboiler.	008334	0.092	0.0054	0.039	0.0016	0.0075	0.0075	0.0075	117.10	lb/MMBtu	A
	Amine Reboiler	105021	0.092	0.0054	0.039	0.0016	0.0075	0.0075	0.0075	117.10	lb/MMBtu	A
Flare												
	Planned Flaring	101060	0.068	0.200	0.370	0.1362	0.02	0.02	0.02	117.10	lb/MMBtu	B
	Unplanned/Emergency Flaring	101060	0.068	0.200	0.370	0.1362	0.02	0.02	0.02	117.10	lb/MMBtu	B

Table 5.1-3
Part 70 / Permit to Operate 9136 - R10
E&B Gas Plant 10
Hourly and Daily Emissions

Equipment Category	Emissions Unit	Device	NOx		ROC		CO		SOx		PM		PM_{10}		$PM_{2.5}$		GHG		Federal Enforceability Basis
		ID #	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	
Fugitive Hydrocarbon Components - Gas/Condensate Service																			
	Valves	008323	-	-	2.85	68.43	-	-	-	-	-	-	-	-	-	-	-	-	FE
	Valves (unsafe to monitor)	008325	-	-	0.23	5.63	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 7214
	Connections	008327	-	-	1.33	31.99	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 14751
	Connections (unsafe to monitor)	008328	-	-	0.06	1.55	-	-	-	-	-	-	-	-	-	-	-	-	FE
	Compressor seals (open)	008329	-	-	0.09	2.16	-	-	-	-	-	-	-	-	-	-	-	-	FE
	Compressor seals (sealed)	008330	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	FE
	Pump Seals	008331	-	-	0.09	2.09	-	-	-	-	-	-	-	-	-	-	-	-	FE
	Relief Valves (open)	008332	-	-	0.16	3.76	-	-	-	-	-	-	-	-	-	-	-	-	FE
Fugitive Hydrocarbon Components - Oil Service																			
	Valves (Oil Service)	105000	-	-	0.11	2.56	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10914
	Connections (Oil Service)	105001	-	-	0.02	0.37	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10914
External Combustion Equipment																			
	Glycol Reboiler: H-101.	008333	0.06	1.49	0.00	0.09	0.03	0.63	0.00	0.03	0.01	0.12	0.01	0.12	0.01	0.12	79.04	1,897.02	FE
	Glycol Reboiler.	008334	0.02	0.39	0.00	0.02	0.01	0.16	0.00	0.01	0.00	0.03	0.00	0.03	0.00	0.03	20.49	491.82	FE
	Amine Reboiler	105021	0.06	1.44	0.00	0.08	0.03	0.61	0.00	0.03	0.00	0.12	0.00	0.12	0.00	0.12	76.12	1,826.76	FE ATC 10914
Flare																			
	Planned Flaring[1]	101060	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	A
	Unplanned/Emergency Flaring	101060	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	A

1. Flaring is on an event basis, therefore emission limits are only given in terms of tons per year.

Table 5.1-4
Part 70 / Permit to Operate 9136 - R10
E&B Gas Plant 10
Quarterly and Annual Emissions

Equipment Category	Emissions Unit	Device ID #	NOx TPQ	NOx TPY	ROC TPQ	ROC TPY	CO TPQ	CO TPY	SOx TPQ	SOx TPY	PM TPQ	PM TPY	PM_{10} TPQ	PM_{10} TPY	$PM_{2.5}$ TPQ	$PM_{2.5}$ TPY	GHG TPQ	GHG TPY	Federal Enforceability Basis
Fugitive Hydrocarbon Components - Gas/Condensate Service																			
	Valves	008323	-	-	3.12	12.49	-	-	-	-	-	-	-	-	-	-	-	-	FE
	Valves (unsafe to monitor)	008325	-	-	0.26	1.03	-	-	-	-	-	-	-	-	-	-	-	-	FE
	Connections	008327	-	-	1.46	5.84	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 7214
	Connections (unsafe to monitor)	008328	-	-	0.07	0.28	-	-	-	-	-	-	-	-	-	-	-	-	FE
	Compressor seals (open)	008329	-	-	0.10	0.39	-	-	-	-	-	-	-	-	-	-	-	-	FE
	Compressor seals (sealed)	008330	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	FE
	Pump Seals	008331	-	-	0.10	0.38	-	-	-	-	-	-	-	-	-	-	-	-	FE
	Relief Valves (open)	008332	-	-	0.17	0.69	-	-	-	-	-	-	-	-	-	-	-	-	FE
Fugitive Hydrocarbon Components - Oil Service																			
	Valves (Oil Service)	105000	-	-	0.12	0.47	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10914
	Connections (Oil Service)	105001	-	-	0.02	0.07	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10914
External Combustion Equipment																			
	Glycol Reboiler: H-101.	008333	0.07	0.27	0.00	0.02	0.03	0.12	0.00	0.00	0.01	0.02	0.01	0.02	0.01	0.02	86.55	346.21	FE
	Glycol Reboiler.	008334	0.02	0.07	0.00	0.00	0.01	0.03	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	22.44	89.76	FE
	Amine Reboiler	105021	0.07	0.26	0.00	0.02	0.03	0.11	0.00	0.00	0.01	0.02	0.01	0.02	0.01	0.02	83.35	333.38	FE ATC 10914
Flare																			
	Planned Flaring[1]	101060	NA	2.49	NA	7.34	NA	13.57	NA	5.00	NA	0.73	NA	0.73	NA	0.73	NA	4,295.74	A
	Unplanned/Emergency Flaring	101060	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	N/A	A

1. Flaring is on an event basis, therefore emission limits are only given in terms of tons per year.

Table 5.2
Part 70 / Permit to Operate 9136 - R10
Total Permitted Facility Emissions

A. Hourly (lb/hr)

Equipment Category	NO_X	ROC	CO	SO_X	PM	PM_{10}	$PM_{2.5}$	GHG
Fugitives	-	4.94	-	-	-	-	-	-
Boilers	0.14	0.01	0.06	0.00	0.01	0.01	0.01	175.65
Flare	-	-	-	-	-	-	-	-
Totals	0.14	4.95	0.06	0.00	0.01	0.01	0.01	175.65

B. Daily (lb/day)

Equipment Category	NO_X	ROC	CO	SO_X	PM	PM_{10}	$PM_{2.5}$	GHG
Fugitives	-	118.52	-	-	-	-	-	-
Boilers	3.31	0.19	1.40	0.06	0.27	0.27	0.27	4,215.60
Flare	-	-	-	-	-	-	-	-
Totals	3.31	118.72	1.40	0.06	0.27	0.27	0.27	4,215.60

C. Quarterly (Tons/Qtr)

Equipment Category	NO_X	ROC	CO	SO_X	PM	PM_{10}	$PM_{2.5}$	GHG
Fugitives	-	5.41	-	-	-	-	-	-
Boilers	0.15	0.01	0.06	0.00	0.01	0.01	0.01	192.34
Flare	-	-	-	-	-	-	-	-
Totals	0.15	5.42	0.06	0.00	0.01	0.01	0.01	192.34

D. Annual (Ton/yr)

Equipment Category	NO_X	ROC	CO	SO_X	PM	PM_{10}	$PM_{2.5}$	GHG
Fugitives	-	21.63	-	-	-	-	-	-
Boilers	0.60	0.04	0.26	0.01	0.05	0.05	0.05	769.35
Flare	2.49	7.34	13.57	5.00	0.73	0.73	0.73	4,295.74
Totals	3.09	29.00	13.83	5.01	0.78	0.78	0.78	5,065.09

Table 5.3
Part 70 / Permit to Operate 9136 - R10
Federal Facility Potential to Emit

Federal PTE - Peak Annual (Ton/yr)								
Equipment Category	**NO_X**	**ROC**	**CO**	**SO_X**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**GHG**
Fugitives	0.00	21.63	0.00	0.00	0.00	0.00	0.00	0.00
Boilers	0.60	0.04	0.26	0.01	0.05	0.05	0.05	769.35
Flare	2.49	7.34	13.57	5.00	0.73	0.73	0.73	4,295.74
Totals	**3.09**	**29.00**	**13.83**	**5.01**	**0.78**	**0.78**	**0.78**	**5,065.09**

Table 5.4-1
Permit to Operate 9136 - R10
E&B Gas Plant 10
HAP Emission Factors

Equipment Category	Description	Device ID#	Units	Acetaldehyde	Acrolein	Arsenic	Benzene	Beryllium	Cadmium	Chromium (total)	Ethyl benzene	Formaldehyde	Hexane	Manganese	Mercury	Naphthalene	Nickel	PAHs	Selenium	Toluene	Xylenes	References
Fugitive Hydrocarbon Components - Gas/Condensate Service																						
	Valves	008323	lb/lb-ROC				3.25E-03						1.69E-01									A
	Valves (unsafe to monitor)	008325	lb/lb-ROC				3.25E-03						1.69E-01									A
	Connections	008327	lb/lb-ROC				3.25E-03						1.69E-01									A
	Connections (unsafe to monitor)	008328	lb/lb-ROC				3.25E-03						1.69E-01									A
	Compressor seals (open)	008329	lb/lb-ROC				3.25E-03						1.69E-01									A
	Compressor seals (sealed)	008330	lb/lb-ROC				3.25E-03						1.69E-01									A
	Pump Seals	008331	lb/lb-ROC				3.25E-03						1.69E-01									A
	Relief Valves (open)	008332	lb/lb-ROC				3.25E-03						1.69E-01									A
Fugitive Hydrocarbon Components - Oil Service																						
	Valves (Oil Service)	105000	lb/lb-ROC				1.79E-03						1.77E-01									B
	Connections (Oil Service)	105001	lb/lb-ROC				1.79E-03						1.77E-01									B
External Combustion Equipment																						
	Glycol Reboiler: H-101.	008333	lb/MMscf	4.30E-03	2.70E-03	2.00E-04	8.00E-03	1.20E-05	1.10E-03	1.40E-03	9.50E-03	1.70E-02	6.30E-03	3.80E-04	2.60E-04	3.00E-04	2.10E-03	1.00E-04	2.40E-05	3.66E-02	2.72E-02	C, E
	Glycol Reboiler.	008334	lb/MMscf	4.30E-03	2.70E-03	2.00E-04	8.00E-03	1.20E-05	1.10E-03	1.40E-03	9.50E-03	1.70E-02	6.30E-03	3.80E-04	2.60E-04	3.00E-04	2.10E-03	1.00E-04	2.40E-05	3.66E-02	2.72E-02	C, E
	Amine Reboiler	105021	lb/MMscf	4.30E-03	2.70E-03	2.00E-04	8.00E-03	1.20E-05	1.10E-03	1.40E-03	9.50E-03	1.70E-02	6.30E-03	3.80E-04	2.60E-04	3.00E-04	2.10E-03	1.00E-04	2.40E-05	3.66E-02	2.72E-02	C, E
Flare																						
	Planned Flaring	101060	lb/MMscf	4.30E-02	1.00E-02	2.00E-04	1.59E-01	1.20E-05	1.10E-03	1.40E-03	1.44E+00	1.17E+00	2.90E-02	3.80E-04	2.60E-04	1.10E-02	2.10E-03	3.00E-03	2.40E-05	5.80E-02	2.90E-02	D, E
	Unplanned/Emergency Flaring	101060	lb/MMscf	4.30E-02	1.00E-02	2.00E-04	1.59E-01	1.20E-05	1.10E-03	1.40E-03	1.44E+00	1.17E+00	2.90E-02	3.80E-04	2.60E-04	1.10E-02	2.10E-03	3.00E-03	2.40E-05	5.80E-02	2.90E-02	D, E

References:

A. CARB Speciation Manual Second Edition (1991) Profile Number 757 - Oil & Gas Production Fugitives - Gas Service
B. CARB Speciation Manual Second Edition (1991) Profile Number 756 - Oil & Gas Production Fugitives - Liquid Service
C. VCAPCD AB 2588 Natural Gas Fired External Combustion Emission Factors - Boilers < 10 MMBtu/hr
D. VCAPCD AB 2588 Natural Gas Fired External Combustion Emission Factors - Flares
E. US EPA AP-42, Table 1.4-4 - Emission Factors for Metals from Natural Gas Combustion (7/98)

Table 5.4
Permit to Operate 9136 - R10
E&B Gas Plant 10
HAP Emissions (ton/yr) [1]

Equipment Category	Description	Device ID#	Acetaldehyde	Acrolein	Arsenic	Benzene	Beryllium	Cadmium	Chromium (total)	Ethyl benzene	Formaldehyde	Hexane	Manganese	Mercury	Naphthalene	Nickel	PAHs	Selenium	Toluene	Xylenes
Fugitive Components - Gas/Condensate Service																				
	Valves	008323				0.04						2.11								
	Valves (unsafe to monitor)	008325				0.00						0.17								
	Connections	008327				0.02						0.99								
	Connections (unsafe to monitor)	008328				0.00						0.05								
	Compressor seals (open)	008329				0.00						0.07								
	Compressor seals (sealed)	008330				0.00						0.00								
	Pump Seals	008331				0.00						0.06								
	Relief Valves (open)	008332				0.00						0.12								
Fugitive Components - Oil Service																				
	Valves (Oil Service)	105000				0.00						0.08								
	Connections (Oil Service)	105001				0.00						0.01								
External Combustion Equipment																				
	Glycol Reboiler: H-101.	008333	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Glycol Reboiler.	008334	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Amine Reboiler	105021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flare																				
	Planned Flaring	101060	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Unplanned/Emergency Flaring	101060	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub Total HAPS (tpy)		**0.00**	**0.00**	**0.00**	**0.08**	**0.00**	**0.00**	**0.00**	**0.05**	**0.04**	**3.66**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	Total HAPs (tpy)		**3.83**																	

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.
3. Results are only shown for substances that have emission factors for the type of operations included in this permit.
4. The emission factors used in these calculations are available in the administrative file for this permit.

Table 5.4-3
Permit to Operate 9136 - R10
E&B Gas Plant 10
Stationary Source HAP Emissions (tpy) [1]

Facility	FID	Acetaldehyde	Acrolein	Arsenic	Benzene	Beryllium	Biphenyl	1,3-Butadiene	Cadmium	Carbon tetrachloride	Chlorobenzene	Chloroform	Chromium (total)	1,3-dichloropropene	Ethyl benzene	Ethylenedibromide	Formaldehyde	HCl	Hexane	Lead	Manganese	Mercury	Methanol	Methylene Chloride	Naphthalene	Nickel	PAHs	Selenium	Styrene	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	Toluene	Vinyl Chloride	Xylenes
South Cuyama Unit (SCU)	1074	0.00	0.00	0.00	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.00	0.00
Gas Plant 10	3202	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.04	0.00	3.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E & B IC Engines	8916	0.14	0.13	0.00	0.08	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.06	0.00	0.05	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01
Stationary Source Subtotal Total HAPs		**0.15**	**0.14**	**0.00**	**1.92**	**0.00**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.05**	**0.00**	**1.10**	**0.00**	**13.54**	**0.00**	**0.00**	**0.00**	**0.16**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.12**	**0.00**	**0.01**
Stationary Source Total HAPs		**18.23**																																

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 E&B stationary source is subject to the Air Toxics Hot-Spots Program (AB-2588). A health risk assessment (HRA) for the facilities was prepared by the District on March 12, 1996 under the requirements of the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588). The HRA is based on 1994 toxic emissions inventory data submitted to the District by the previous operator. An earlier HRA, based on 1991 emission data was also prepared by the District for this facility on November 10, 1993.

Based on the 1994 toxic emissions inventory, a cancer risk of 6 per million off the property was estimated for the E&B Stationary Source. This risk is primarily due to emissions of polycyclic aromatic hydrocarbon (PAH) from internal combustion devices. Additionally, a chronic risk of 0.3 and an acute risk of 0.07 have been estimated by the District and are mainly due to formaldehyde and acrolein emissions from internal combustion devices. The cancer and non-cancer chronic risk projections are less than the District's AB-2588 significance thresholds of 10 in a million and 1.0, respectively. Approximately 4.7 pounds of PAH, 6000 pounds of formaldehyde and 190 pounds of acrolein were emitted from internal combustion devices in 1994.

E&B is in the process of completing an updated Air Toxics Emission Inventory Plan (ATEIP) and Air Toxics Emission Inventory Report (ATEIR) under the AB2588 "Hot Spots" program. These documents will reflect the entire E&B South Cuyama Stationary Source. Once approved, a health risk assessment for the entire source will be performed in accordance with Air Toxic "Hot Spots" risk procedures.

7.0 CAP Consistency, Offset Requirements and ERCs

7.1 General

Santa Barbara County has not attained the state PM_{10} and Ozone 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.

In December 2019 the District Board adopted the 2019 Ozone Plan. The 2019 Plan provides a three-year update to the 2010 Clean Air Plan. The 2019 Clean Air Plan therefore satisfies all state triennial planning requirements.

7.3 Offset Requirements

The E&B - South Cuyama stationary source triggers the Regulation VIII offset thresholds for NOx and ROC emission. A summary of the E&B - South Cuyama stationary source's current emission liabilities and ERCs are shown in Table 7(a) and Table 7(b) of the permit.

7.4 Emission Reduction Credits

7.4.1 Decision of Issuance (DOI) 0033 created NO_X, ROC, and CO ERCs from the electrification of the #12 Clark HRA-6T integral gas compressor engine. See Section 1.5 of PTO 8010-R11.

7.4.2 Decision of Issuance (DOI) 0061-02 created NO_X, ROC, and CO ERCs from the electrification of two water injection pumps: one at the Machader Produced Water Plant and one at the Perkins Produced Water Plant. Historically, four engines were used in the pumping process (two at each site). Two engines previously used to drive the injection pumps will be maintained on permit as controlled standby engines with no more than 50 hours/quarter and 200 hours/year of operations each.

7.4.3 Decision of Issuance (DOI) 0086 created ROC ERCs by filling in twenty well cellars at the South Cuyama Unit. The well cellars were permanently removed, but the wells remain active.

Table 7(a) - Offset Liabilities for the E&B - South Cuyama Stationary Source
Updated: 9/29/2021

Item	Permit	Facility	Issue Date	ERC Returned?	Project	Offset Liability ---- tons/year ---- NO_X	ROC	SO_X	PM	PM_{10}	ERC Source	Notes
1	ATC 14903	South Cuyama Unit	12/23/2016	no	Tank Floor Replacement	-	0.170	-	-	-	411	-
2	ATC 14871	South Cuyama Unit	03/14/17	no	Install MicroTurbine	0.476	0.473	-	-	-	346	-
3	ATC 14959	South Cuyama Unit	03/14/17	no	Install VRU	-	0.104	-	-	-	424	-
4	ATC 14960	South Cuyama Unit	03/14/17	no	Install VRU	-	0.104	-	-	-	425	-
5	ATC 14982	South Cuyama Unit	05/01/17	no	Tank Floor Replacement	-	0.010	-	-	-	431	-
6	ATC 15098	South Cuyama Unit	01/09/18	no	Install Wash Tank	-	0.190	-	-	-	426	-
7	PTO 14751	Gas Plant 10	01/18/18	no	Pipeline Installation	-	0.240	-	-	-	461	-
8	ATC 15163	South Cuyama Unit	08/03/18	no	Install Propane Bullet	-	0.837	-	-	-	461	-
9	PTO 15098	South Cuyama Unit	10/29/18	no	Install Wash Tank	-	0.040	-	-	-	480	-
10	ATC 15217	South Cuyama Unit	11/21/18	no	Install Produced Water Tank	-	0.550	-	-	-	480	-
11	ATC 15370	South Cuyama Unit	08/29/19	no	Tank Floor Replacement	-	0.170	-	-	-	482	-
12	ATC 15528	South Cuyama Unit	10/13/20	no	Install Compressor and Fugitives	-	1.054	-	-	-	526	-
13	PTO 15528	South Cuyama Unit	TBD	yes	Install Compressor and Fugitives	-	(0.017)	-	-	-	N/A	(a)
					TOTALS (tpy) =	0.476	3.925	0.000	0.000	0.000		

Notes

(a) ERCs used after August 26, 2016 may be returned to the Source Register. This line item reflects such a return. It is entered as a negative entry to balance this ledger. Original entry is not revised.

\\sbcapcd.org\shares\Groups\ENGR\WP\Oil&Gas\Major Sources\SSID 01073 E & B - South Cuyama\Offsets\[Post 2016 NSR Rule Change SCU Offset Table - (7-23-21).xlsx]Table 7.1 - Offsets

Table 7(b) - Emission Reduction Credits Table the E&B - South Cuyama Stationary Source
Updated: 9/29/2021

Item	Permit	Facility	Surrender Date	ERC Returned?	Emission Reduction Credits ---- tons/year ----					Offset Ratio	ERC Source	NOTES
					NO_X	ROC	SO_X	PM	PM_{10}			
1	ATC 14903	South Cuyama Unit	12/23/2016	no	-	0.187	-	-	-	1.1	411	(a)
2	ATC 14871	South Cuyama Unit	03/14/17	no	0.524	0.520	-	-	-	1.1	346	(a)
3	ATC 14959	South Cuyama Unit	03/14/17	no	-	0.114	-	-	-	1.1	424	
4	ATC 14960	South Cuyama Unit	03/14/17	no	-	0.114	-	-	-	1.1	425	
5	ATC 14982	South Cuyama Unit	05/01/17	no	-	0.011	-	-	-	1.1	431	(a)
6	ATC 15098	South Cuyama Unit	01/09/18	no	-	0.209	-	-	-	1.1	426	
7	PTO 14751	Gas Plant 10	01/18/18	no	-	0.264	-	-	-	1.1	461	
8	ATC 15163	South Cuyama Unit	08/03/18	no	-	0.921	-	-	-	1.1	461	
9	PTO 15098	South Cuyama Unit	10/29/18	no	-	0.044	-	-	-	1.1	480	
10	ATC 15217	South Cuyama Unit	11/21/18	no	-	0.605	-	-	-	1.1	480	
11	ATC 15370	South Cuyama Unit	8/29/2019	no	-	0.187	-	-	-	1.1	482	
12	ATC 15528	South Cuyama Unit	10/13/20	no	-	1.159	-	-	-	1.1	526	-
13	PTO 15528	South Cuyama Unit	TBD	yes	-	(0.019)	-	-	-	1.1	N/A	-
			TOTALS (tpy) =		0.524	4.318	0.000	0.000	0.000			

Notes
(a) Brown text cells require data entry. Do not enter data in Black text cells

\\sbcapcd.org\shares\Groups\ENGR\WP\Oil&Gas\Major Sources\SSID 01073 E & B - South Cuyama\Offsets\[Post 2016 NSR Rule Change SCU Offset Table - (7-23-21).xlsx]Table 7.2 - ERCs

8.0 Lead Agency Permit Consistency

The Santa Barbara County Planning and Development Department is the lead agency for this project. To the District's knowledge, this permit is consistent with all provisions of the lead agency permit.

9.0 Permit Conditions

This section lists the applicable permit conditions for E&B Gas Plant 10. Section 9.A lists the standard administrative conditions. Section 9.B lists ‘generic’ permit conditions, including emission standards, for all equipment in this permit. Section 9.C lists conditions affecting specific equipment. Section 9.D lists non-federally-enforceable (i.e., District only) permit conditions. Conditions listed in Sections 9.A, 9.B and 9.C are enforceable by the USEPA, the District, the State of California and the public. Conditions listed in Section 9.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 Gas Plant 10:

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

(a) The permittee shall comply with all permit conditions in Sections 9.A, 9.B and 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 70.5.(a)(6)(iii*), *District Rules 1303.D.1.j, 1303.D.1.n, 1303.D.1.l, 1303.D.1.k, 1303.D.1.o*]

A.2 **Emergency Provisions:** The permittee shall comply with the requirements of the District, Rule 505 (Upset/Breakdown rule) and/or District Rule 1303.F, whichever is applicable to the emergency situation. In order to maintain an affirmative defense under Rule 1303.F, the permittee shall provide the District, in writing, a "notice of emergency" within 2 working days of the emergency. The "notice of emergency" shall contain the information/documentation listed in Sections (1) through (5) of Rule 1303.F. [*Re: 40 CFR 70.6(g), District Rule 1303.F*]

A.3 **Compliance Plan:**

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

(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.4 **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 at reasonable times 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.
[*Re: District Rule 1303.D.2.a*]

A.5 **Severability:** The provisions of this Permit to Operate are severable and if any provision of this Permit to Operate is held invalid, the remainder of this Permit to Operate shall not be affected thereby. [*Re: District Rules 103, 1303.D.1.i*]

A.6 **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: 1304.D.1*]

A.7 **Payment of Fees:** The permittee shall reimburse the District for all its Part 70 permit processing and compliance monitoring 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.p, 1304.D.11 and 40 CFR 70.6(a)(7)*]

A.8 **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,* or Rule 1303.F *Emergency Provisions*. [District Rule 1303.D.1, 40 CFR 70.6(a) (3)]

A.9 **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(b)*]

A.10 **Reporting Requirements/Compliance Certification:** The permittee shall submit compliance certification reports to both 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 1st and March 1st , respectively, each year. Supporting monitoring data shall be submitted in accordance with the *Semi-Annual 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.11 **Recordkeeping Requirements:** Records of required monitoring information that includes 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; and

(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.12 **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 which 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 the USEPA determines 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 the USEPA determines 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(f)(1)-(3), 40 CFR 70.6(a)(2)*]

9.B. Generic Conditions

The generic conditions listed below apply to all emission units, regardless of their category or emission rates. These conditions are federally-enforceable. Compliance with these requirements is discussed in Section 3. 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 emission or air contaminants for a period or periods aggregating more than three minutes in any one hour which 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.

District staff certified in visual emission evaluations shall determine compliance with this rule.[*Re: District Rule 302*].

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

B.4 **Particulate Matter – Northern Zone (Rule 304):** The permittee shall not discharge into the atmosphere, from any source, particulate matter in excess 0.3 grain per cubic foot of gas at standard conditions. [*Re: District Rule 304*]

B.5 **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.6 **Sulfur Content of Fuels (Rule 311):** The permittee shall not burn fuels with a sulfur content in excess of 0.5% (by weight) for liquid fuels and 796 ppmvd or 50 gr/100 scf (calculated as H_2S) for gaseous fuel. Compliance with this condition shall be based on measurements of the fuel gas using colorimetric gas detection tubes, ASTM, or other District-approved methods and diesel fuel billing records or other data showing the certified sulfur content for each shipment. [*Re: District Rule 311.B*]

B.7 **Emergency Episode Plans (Rule 603):** During emergency episodes, the permittee shall implement the District approved *Emergency Episode Plan*. [*Reference District Rule 603*]

B.8 **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 alternately

(b) When the permittee uses such materials from containers larger than 16 fluid ounces and the materials are not exempt by Rule 353.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 Rule 353.O. *[Re: District Rule 353]*

B.9 **Boilers, Water Heaters, and Process Heaters (0.075-2.0 MMBtu/hr) (Rule 360):** This rule applies to any person who supplies, sells, offers for sale, installs, or solicits the installation of any new water heater, boiler, steam generator or process heater for use within the District with a rated heat input capacity greater than or equal to 75,000 Btu/hour up to and including 2,000,000 Btu/hour. There are no units at this facility subject to this rule. The two glycol reboilers and the amine reboiler were installed prior to October 18, 2003 and are therefore not subject to this rule.

B.10 **Boilers, Steam Generators, and Process Heaters Between 2.0-5.0 MMBtu/hr (Rule 361):** The permittee shall comply with the requirements of this rule whenever a new boiler, process heater or other external combustion device is added or an existing unit is replaced. There are no units at this facility subject to this rule.

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). Full compliance shall be achieved by no later than June 17, 2002. The permittee shall maintain records of the actual annual average natural gas throughput (gas flow rate to the glycol dehydration unit per day) as determined in accordance with 63.772(b)(1) of the MACT. In addition the permittee shall maintain records identifying ancillary equipment and components subject to and controlled under 40 CFR Part 60 Subpart KKK. [*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 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:** The following equipment is included in this emissions unit category:

Device #	Description
008333	Glycol reboiler, designation: H-101, maximum heat input rating: 0.675 MMBtu/hr, fuel: field gas.
008334	Glycol reboiler, maximum heat input rating: 0.175 MMBtu/hr, fuel: field gas.
105021	Amine reboiler, maximum heat input rating: 0.650 MMBtu/hr, fuel: field gas.

(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 the fuel usage, the total sulfur content of fuel and through compliance with other conditions listed below.

(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:

Equipment	Fuel	Hourly Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
Glycol Reboiler	Field Gas	16.200	5,913
Glycol Reboiler	Field Gas	4.200	1,533
Amine Reboiler	Field Gas	15.600	5,694

(ii) *Gaseous Fuel Sulfur Limit*: The total sulfur content (calculated as H_2S at standard conditions, 60°F and 14.7 psia) of the gaseous fuel shall not exceed 10 ppmv.

(iii) The vapor recovery system that serves the glycol reboilers and the amine reboiler shall be in operation when the glycol reboilers and the amine reboiler are in use. The vapor recovery system includes piping, valves, and flanges associated with the vapor recovery system. The vapor recovery system shall be maintained and operated to minimize the release of emissions from the glycol reboilers.

(c) Monitoring: The following monitoring requirements apply:

(i) *Throughput Monitoring*: The permittee shall operate, calibrate, and maintain a meter with a continuous recording chart that serves the glycol and amine reboilers to measure the volume of gas consumed. The records shall be made available to the District upon request. The meter shall be calibrated on an annual basis. The meter shall be calibrated and maintained in accordance with the manufacturer's recommended procedures. For reporting purposes, the fuel used by each reboiler shall be allocated per the approved *Fuel Use Monitoring Plan*. The Plan may be updated only upon approval by the District.

(ii) *Hydrogen Sulfide Monitoring*: The existing Southern California Gas Company H_2S gas analyzer shall be used to monitor the H_2S content of processed field gas combusted in fuel burning equipment. The existing analyzer is alarmed at 4.0 ppmv and H_2S monitored concentrations above 4 ppmv will trigger the plant gas reinjection alarm. The permittee shall take colorimetric gas detection tube samples at both the inlet and outlet of Gas Plant 10 within one hour of the gas reinjection alarm. The outlet sample should be at a point representative of the inlet to the reboilers. The permittee shall repeat these detector tube readings daily if the reinjection event lasts for more than 12 hours. Immediately after a gas reinjection event is over, E&B shall take another colorimetric gas detection tube reading at the gas plant outlet to ensure H_2S concentrations are less than 10 ppmv. If the gas company monitor is permanently removed or shut down for longer than a 45 day period, the permittee shall install, operate, and properly maintain an H_2S gas analyzer downstream of the LPG facility. The permittee shall notify the District within 10 days after gas company monitor removal or a monitor shutdown exceeding 45 days, and install an analyzer within 60-days after notification.

(d) Recordkeeping: The following record keeping requirements apply:

E&B must maintain all records 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) *Volume of Fuel:* The volume, in standard cubic feet, of gaseous fuel burned each month and the number of days that gas was burned;

(ii) *Heating Value of Fuel:* On an annual basis, record and measure the heating value of the gaseous fuel (Btu/scf). The heating value shall be measured by ASTM D 3588 or other method acceptable to the District and recorded;

(iii) *Peak Sulfur Content:* Date and time of plant gas reinjection alarm and date, time, and results in parts per million by volume of daily detector tube readings when measurement is required pursuant to 9.C.1.(c).

(iv) *Maintenance Logs:* Maintenance logs for the throughput meters.

(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. [*Reference: District ATC 7214, ATC 10914 and 40 CFR 70.6.a*]

C.2 **Fugitive Hydrocarbon Emissions Components:** The following equipment is included in this emissions unit category:

Device #	Equipment Item Name, Number of Component Leak Paths/Item
	Gas/Light Liquid Service CLPs
008323	Valves
008325	Valves (unsafe to monitor)
008327	Connections
008328	Connections (unsafe to monitor)
008329	Compressor Seals (open w/o vapor recovery)
008330	Compressor Seals (sealed w/ vapor recovery)
008331	Pump Seals
008332	Relief Valves (open)
	Oil Service CLPs
105000	Valves:
105001	Connections:

(a) Emission Limits: The fugitive emissions were subject to New Source Review under ATC 7214A, ATC 10914 and ATC 12913. Thus emissions from these equipment are federally-enforceable. These emissions are listed in Table 5.1-3, 5.1-4 and 5.2. Compliance with these limits is met when E & B complies with the provisions of Subpart KKK and Rule 331.

(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 E&B shall meet the following requirements:

(i) All piping, valves, and fittings must be vapor tight. E&B shall implement the requirements of District Rule 331 and adhere to the most recent District-approved *Inspection and Maintenance Plan* for control of fugitive reactive organic compound emissions.

(c) Monitoring: The equipment listed in this section are subject to all the monitoring requirements listed in NSPS Subpart KKK and in District Rule 331.F. The test methods in Subpart KKK and 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 NSPS Subpart KKK and 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: 40 CFR 60, Subpart KKK, 40 CFR 70.6(a)(3), District ATC 7214, ATC 10914, ATC 12913 and District Rule 331*]

C.3 **Flare Emissions:** The following equipment is included in this emissions category:

Device #	Equipment Description
101060	Flare, diameter: 1.0 foot, height: 30.0 feet, maximum heat input rating: 262.5 MMBtu/hr, equipped with manual electronic ignition and non-continuous flare pilot.

(a) Emission Limits: There are no federally-enforceable emissions limits associated with this equipment.

(b) Operational Limits:

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

(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 volume of gas flared through the flare (ID# 101060) shall not exceed the volumes listed in the table below. Compliance shall be determined through flare volumes monitored pursuant to the *E&B Flare Minimization Plan* and E&B *Flare Monitoring Plan*.

Device #	Equipment Description	MMSCF/month	MMSCF/year
101060	Planned Flaring	5.823	69.876

(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.4 **Semi-Annual Compliance Verification Reports:** E&B shall submit a report to the District every six months to verify compliance with the emission limits and other requirements of this permit. 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 1st and March 1st, respectively, each year, and shall be in a format approved by the District. A paper copy as well as a complete PDF electronic copy of these reports shall be submitted. 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) **External Combustion Equipment**

(i) *Volume of Fuel*: The volume, in standard cubic feet, of gaseous fuel burned by each external combustion device each quarter and the number of days that gas was burned in each;

(ii) *Heating Value of Fuel*: Results of the annual measurement of the heating value of the gaseous fuel (Btu/scf).

(iii) *Peak Sulfur Content:* Date and time of E&B gas reinjection alarm and date, time, and results in parts per million by volume of daily detector tube readings when measurement is required pursuant to Condition 9.C.1.(c).

(b) **Fugitive Hydrocarbon Emissions**

(i) All the reporting requirements listed in NSPS Subpart KKK and District Rule 331.G, and shall include:

- inspection summary.
- record of leaking components.
- record of leaks from critical components.
- record of leaks from components that incur five repair actions within a continuous 12-month period.
- record of component repair actions including dates of component re-inspections.

(c) **Flare Emissions:** All data required to be submitted by the permittee's District-approved *Flare Monitoring Plan*.

(d) **Emissions:** Annual NO_X and ROC emissions from both permitted and exempt equipment.

C.5. **Amine System Operational Restrictions:** The equipment permitted herein is subject to the following operational restrictions:

(a) All gas from the flash tank shall be vented to the field fuel gas system or to the gas reinjection system. At no time shall this gas be vented to the atmosphere or combusted in the flare.

(b) The vapor recovery system connected to the amine still shall be in operation at all times that produced gas is being processed through the permitted equipment. The vapor recovery system includes associated valves, fittings, and flanges. The vapor recovery system shall be maintained and operated to minimize the release of emissions. At no time shall this gas be vented to the atmosphere or combusted in the flare. *[Re: ATC 10914]*

C.6 **Documents Incorporated by Reference:** The documents listed below, including any District-approved updates thereof, are incorporated herein and shall have the full force and effect of a permit condition for this operating permit:

(a) *Emergency Episode Plan for Stationary Source Curtailment* (dated July 1, 2011 and approved July 12, 2012 and all subsequent approved updates). [Ref: Rule 603]

(b) *Process Monitor and Maintenance Plan* (dated June 8, 2012 and approved July 12, 2012) and all subsequent approved updates).

(c) *Flare Minimization Plan* (dated June 8, 2012 and approved July 12, 2012 and all subsequent approved updates). [Re: Rule 359.F]

(d) *Flare Volume Monitoring Plan* (dated June 8, 2012 and approved July 12, 2012 and all subsequent approved updates). [Re: Rule 359.F]

(e) *Gas Plant 10 Nitrogen Reinjection Unit Fugitive Emissions Inspection and Monitoring Plan* (dated May 3, 2010 and approved July 22, 2010 and all subsequent approved updates). [Re: Rule 331].

(f) *Fugitive Emissions Inspection and Monitoring Plan*. (dated June 2008 and all subsequent approved updates) [Re: Rule 331].

(g) *Fuel Use Monitoring Plan* (dated June 8, 2012 and approved July 12, 2012 and all subsequent approved updates) [Re: Rule 331].

C.7 **Emission Offsets:** The permittee shall offset all reactive organic compound (ROC) emissions pursuant to Tables 7(a) and 7(b). Emission reduction credits (ERCs) sufficient to offset the permitted annual ROC emissions shall be in place for the life of the project.

C.8 **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*

C.9 **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.

C.10 **CARB GHG Regulation Reporting:** 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.

9.D District-Only Conditions

The following section lists permit conditions that are not federally-enforceable (i.e., not enforceable by the 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. [*Re: District Rule 206*]

D.2 **Grounds for Revocation:** Failure to abide by and faithfully comply with this permit shall constitute grounds for revocation pursuant to California Health & Safety Code Section 42307 *et seq*.

D.3 **Reimbursement of Costs:** All reasonable expenses, as defined in District Rule 210, incurred by the District, District contractors, and legal counsel for all activities related to the implementation of Regulation XIII (*Part 70 Operating Permits*) that follow the issuance of this PTO permit, including but not limited to permit condition implementation, compliance verification and emergency response, directly and necessarily related to enforcement of the permit shall be reimbursed by the permittee as required by Rule 210.

D.4 **Access to Records and Facilities:** As to any condition that requires for its effective enforcement the inspection of records or facilities by the District or its agents, the permittee shall make such records available or provide access to such facilities upon notice from the District. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A.

D.5 **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.6 **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 the District's analyses under which this permit is issued.

D.7 **Consistency with Federal, State and Local Permits:** Nothing in this permit shall relax any air pollution control requirement imposed on E&B by any other governmental agency.

D.8 **Fugitive Hydrocarbon Emissions:** In addition to requirements specified in Section 9.C, the following requirements are applicable:

(a) Emissions from fugitive hydrocarbon components (e.g., valves and flanges) shall not exceed the emission limits set forth in Tables 5.1-3 and 5.1-4.

(b) The total component leak-path count listed in the permittee's most recent I&M component leak-path inventory shall not exceed the total component leak-path count listed in Table 5.1-1 by more than five-percent. This five-percent range is to allow for minor differences due to component counting methods and does not constitute allowable emissions growth due to the addition of new equipment.

(c) All routine venting of hydrocarbons shall be routed to a compressor, flare header or other District-approved control device.

D.9 **Abrasive Blasting Equipment:** All abrasive blasting activities performed at the facility shall comply with the requirements of the California Administrative Code Title 17, Sections 92000 through 92530.

D.10 **Permitted Equipment:** Only those equipment items listed in Attachment 10.3 are covered by the requirements of this permit and District Rule 201.B.

D.11 **Mass Emission Limitations:** Mass emissions for each equipment item (i.e., emissions unit) associated with Gas Plant 10 shall not exceed the values listed in Tables 5.1-3 and 5.1-4. Emissions for the entire facility shall not exceed the total limits listed in Table 5.2.

D.12 **Operation/Throughput Limitations:** The following throughput limitations shall not be exceeded at Gas Plant 10:

NGL Production:	24,000	gallons/day
Gas Processed:	6.000	MMscf/day
Gas Consumption:	0.034	MMscf/day

Note: For combustion equipment, based upon maximum design input rating of burners of the glycol reboilers and amine reboiler. The fuel heat content is 1,050 Btu/scf.

D.13 **Process Stream Sampling and Analysis:** The permittee shall sample and analyze the process streams listed in Section 4.8 of this permit consistent with the requirements of that section. All process stream samples shall be taken according to District-approved ASTM methods and must follow traceable chain of custody procedures.

D.14 **Reciprocating Natural Gas Compressor CARB GHG Requirements -** The following IC engine equipment items are included in this emissions unit category:

District ID#	Equipment Item (IC Engine) Description
105030	Clark Compressor #10
105031	Clark Compressor #12
112428	NRU – Sales Compressor

(a) **Operational Restrictions.** The equipment permitted herein is subject to the following operational restrictions:

(i) By January 1, 2019, any reciprocating natural gas compressor with a rod packing or seal with a measured emission flow rate greater than two (2) standard cubic feet per minute (scfm), or a combined rod packing or seal emission flow rate greater than the number of compression cylinders multiplied by two (2) scfm, shall be controlled with a vapor collection system or successfully repaired according to the timelines specified in Sections 95668(c)(4)(D) and 95668(c)(4)(F) of the California Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities regulation.

(b) **Monitoring**: The equipment permitted herein is subject to the following monitoring requirements:

(i) The reciprocating natural gas compressor rod packing or seal emission flow rate through the rod packing or seal vent stack shall be measured annually pursuant to the requirements of Section 95668(c)(4) of the California Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities regulation.

(c) **Recordkeeping**: The permittee shall record and maintain the following information. This data shall be maintained for a minimum of five (5) years from the date of each entry and made available to the District upon request:

(i) The records of each rod packing or seal emission flow rate measurement.

(ii) For rod packing or seal measurement delays authorized pursuant to Section 95668(c)(4)(B)3 of the California Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities regulation, the records that document the date(s) and hours of operation a compressor is operated in order to demonstrate compliance with the rod packing leak concentration or emission flow rate measurement in the event that the compressor is not operating during a scheduled inspection.

(iii) For rod packing or seal repair delays authorized pursuant to Section 95668(c)(4)(D)1 of the California Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities regulation, the records that provide proof that parts or equipment required to make necessary repairs have been ordered.

D.15 **Process Monitoring Systems - Operation and Maintenance:** All facility process monitoring devices listed in Section 4.7 shall be properly operated and maintained according to manufacturer recommended specifications and the District approved *Process Monitor Calibration and Maintenance Plan*.

D.16 **Recordkeeping:** All records and logs required by this permit and any applicable District, state or federal rule or regulation shall be maintained for a minimum of five calendar years at the facility. These records or logs shall be readily accessible and be made available to the District upon request.

D.17 **Odorous Organic Sulfides (Rule 310):** The permittee shall not discharge into atmosphere H_2S and organic sulfides that result in a ground level impact beyond the stationary source property boundary in excess of either 0.06 ppmv averaged over 3 minutes and 0.03 ppmv averaged over 1 hour. [*Re: District Rule 310*]

D.18 **Annual Compliance Verification Reports:** The permittee shall submit a report to the District, by March 1st 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, a completed *District Annual Emissions Inventory Questionnaire* shall be included in the annual report or submitted electronically via the District website. The report shall include the following information:

(a) Operations of all permit exempt activities including all parameters necessary to calculate emissions.

(b) Throughput records indicating the volume of NGL produced, gas processed and gas consumed in the reboilers.

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

(d) The records of each rod packing or seal emission flow rate measurement.

(e) For rod packing or seal measurement delays authorized pursuant to Section 95668(c)(4)(B)3 of the California Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities regulation, the records that document the date(s) and hours of operation a compressor is operated in order to demonstrate compliance with the rod packing leak concentration or emission flow rate measurement in the event that the compressor is not operating during a scheduled inspection.

(f) For rod packing or seal repair delays authorized pursuant to Section 95668(c)(4)(D)1 of the California Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities regulation, the records that provide proof that parts or equipment required to make necessary repairs have been ordered.

AIR POLLUTION CONTROL OFFICER

____

____

Date

Notes:

a. This permit supersedes Part 70/PTO 9136-R9
b. Permit Reevaluation Due Date: June 2026

RECOMMENDATION

It is recommended that this PTO be issued with the conditions as specified in the permit.

J. Menno	June 2023		June 2023
AQ Engineer	Date	Engineering Supervisor	Date

\\\\sbcapcd.org\shares\Groups\ENGR\WP\Oil&Gas\Major Sources\SSID 01073 E & B - South Cuyama\Reevals\Reevals (2023)\Gas Plant 10\Draft Reeval-Part 70 9136-R10 Gas Plant 03-15-2023.docx

10.0 Attachments

10.1 Emission Calculation Documentation

10.2 Emission Calculation Spreadsheets

10.3 IDS Tables

10.4 Fee Statement

10.5 Equipment List

10.1 EMISSION CALCULATION DOCUMENTATION

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 spreadsheet are attached as Attachment 10.2. The letters A-D refer to Tables 5.1-1 and 5.1-2.

<u>Reference A - External Combustion Devices (Glycol Reboilers)</u>

- The maximum operating schedule is in units of hours

- The gaseous fuel default characteristics are:
  - ⇒ HHV = 1,050 Btu/scf
  - ⇒ Fuel S = 10 ppmvd as H_2S for all equipment
    = 10.6 ppmvd as S
  - ⇒ Emission factors, shown below, are based on the District's default emission factors for uncontrolled boilers/process heaters/water heaters rated between 75,000 – 400,000 MMBtu/hour

NOx	ROC	CO	SO_X	PM	PM10	PM2.5	GHG	Units
0.092	0.0054	0.039	0.00161	0.0075	0.0075	0.0075	117.10	Lb/MMBtu

SO_2 emission factor is based on mass balance equation, based on a fuel sulfur concentration of 10 ppmv. Thus:

⇒ SO_2 (lb/MMBtu) = 0.169 lb SO_2/scf of H_2S 1/HHV * (10 ppmvd S in fuel)

GHG Emission Factor Basis:

Combustion Sources:
GHG emissions from combustion sources are calculated using emission factors found in Tables C-1 and C-2 of 40 CFR Part 98 and global warming potentials found in Table A-1 of 40 CFR Part 98. CO_2 equivalent emission factors are calculated for CO_2, CH_4, and N_2O individually, then summed to calculate a total CO_{2e} emission factor. Annual CO_{2e} emission totals are presented in short tons.

For IC engines, the emission factor in lb/MMBtu heat input is converted to g/bhp-hr output based on a standard brake-specific fuel consumption.

For natural gas combustion the emission factor is:

(53.02 kg CO_2/MMBtu) (2.2046 lb/kg) = 116.89 lb CO_2/MMBtu

(0.001 kg CH_4/MMBtu) (2.2046 lb/kg)(21 lb CO_2e/lb CH4) = 0.046 lb CO_2e/MMBtu

(0.0001 kg N_2O/MMBtu) (2.2046 lb/kg)(310 lb CO_2e/lb N_2O) = 0.068 lb CO_2e/MMBtu

Total CO2e/MMBtu = 116.89 + 0.046 + 0.068 = **<u>117.10 lb CO_2e/MMBtu</u>**

For diesel fuel combustion the emission factor is:

(73.96 kg CO_2/MMBtu) (2.2046 lb/kg) = 163.05 lb CO_2/MMBtu

(0.003 kg CH_4/MMBtu) (2.2046 lb/kg)(21 lb CO_2e/lb CH4) = 0.139 lb CO_2e/MMBtu

(0.0006 kg N_2O/MMBtu) (2.2046 lb/kg)(310 lb CO_2e/lb N_2O) = 0.410 lb CO_2e/MMBtu

Total CO2e/MMBtu = 163.05 + 0.139 + 0.410 = **163.60 lb CO_2e/MMBtu**

Converted to g/hp-hr:

(163.60 lb/MMBtu)(453.6 g/lb)(7500 Btu/hp-hr)/1,000,000 = **556.58 g/hp-hr as CO_2e**

Reference B – Flare:

- The operating schedule and fuel input are based on the facility Flare Minimization Plan
- The gaseous fuel default characteristics are:
  - HHV = 1,050 Btu/scf
  - Fuel S = 796 ppmvd as H_2S
  - = 846 ppmvd as S
- Emission factors, except as noted below, are based on USEPA AP-42, Tables 13.5-1 and 13.5-2.
- No emergency flaring is allowed under this permit thus the emissions for **emergency flaring** is zero for all pollutants.

NOx	ROC	CO	SOx	PM	PM10	PM2.5	GHG	Units
0.068	0.200	0.37	0.13613	0.02	0.02	0.02	117.00	lb/MMBtu

SO_2 emission factor is based on mass balance equation based on fuel S. Thus:
SO_2 (lb/MMBtu) = 0.169 lb SO_2/scf of H_2S * 1/HHV * (ppmvd S in fuel)
ROC emission factor based on the District's February 2016 Flare Report for onshore oil and gas production flares (Link: https://www.ourair.org/wp-content/uploads/Flare-ROC-Emission-Factor-Study-2-11-2016.pdf)

Reference C - Components Emitting Fugitive ROCs

- Emission factors are based on the *District P&P 6100.061* guidelines.
- An 80-percent reduction in fugitive emissions was assumed due to the implementation of a fugitive inspection and maintenance plan pursuant to Rule 331 with a 100-percent reduction for components maintained as non-detectable emitters (less than 500 ppm).
- Components that are unsafe to monitor receive a zero emission reduction.

Reference D -- Solvents

All solvent and coating use at the E&B Stationary Source is covered under PTO 7250.

10.2 Emission Calculation Spreadsheets

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

Attachment: 10.2-1 (Fugitive Emissions)
Permit Number: PTO 9136-R10
Facility: Gas Plant 10

Facility Information

Facility Type (Enter X Where Appropriate)
Production Field ____________ Gas Processing Plant ___x___ 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	851	1.058	0.38	342.14	0.80	2.85	68.43	3.12	12.49
Valves - Unsafe	14	1.058	0.38	5.63	0.00	0.23	5.63	0.26	1.03
Valves - Bellows	0	1.058	0.38	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	1.058	0.38	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	1.058	0.38	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	1.058	0.38	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	1.058	0.38	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	1.058	0.38	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	1.058	0.38	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	1.058	0.38	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	1.058	0.38	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/Inaccessible	6,414	0.058	0.43	159.97	0.80	1.33	31.99	1.46	5.84
Flanges/Connections - Unsafe	62	0.058	0.43	1.55	0.00	0.06	1.55	0.07	0.28
Flanges/Connections - Category A	0	0.058	0.43	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.058	0.43	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.058	0.43	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.058	0.43	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.058	0.43	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.058	0.43	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.058	0.43	0.00	0.92	0.00	0.00	0.00	0.00
Compressor Seals - To Atm	5	10.794	0.20	10.79	0.80	0.09	2.16	0.10	0.39
Compressor Seals - To VRS	18	10.794	0.20	38.86	1.00	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	27	9.947	0.07	18.80	0.80	0.16	3.76	0.17	0.69
PSV - To VRS	0	9.947	0.07	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	4	3.300	0.79	10.43	0.80	0.09	2.09	0.10	0.38
Pump Seals - Dual/Tandem	0	3.300	0.79	0.00	1.00	0.00	0.00	0.00	0.00
Gas Condensate Subtotals	**7,395**			**588.16**		**4.82**	**115.60**	**5.27**	**21.10**

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	90	0.431	0.33	12.79	0.80	0.11	2.56	0.12	0.47
Valves - Unsafe	0	0.431	0.33	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.431	0.33	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.431	0.33	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.431	0.33	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.431	0.33	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.431	0.33	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.431	0.33	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.431	0.33	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.431	0.33	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.431	0.33	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/Inaccessible	80	0.069	0.33	1.83	0.80	0.02	0.37	0.02	0.07
Flanges/Connections - Unsafe	0	0.069	0.33	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.069	0.33	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.069	0.33	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.069	0.33	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.069	0.33	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.069	0.33	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.069	0.33	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.069	0.33	0.00	0.92	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	0	1.740	0.33	0.00	0.80	0.00	0.00	0.00	0.00
PSV - To VRS	0	1.740	0.33	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	0	1.308	0.33	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem	0	1.308	0.33	0.00	1.00	0.00	0.00	0.00	0.00
Oil Subtotals	170			14.62		0.12	2.92	0.13	0.53

Total	**7,565**			**602.78**		**4.94**	**118.52**	**5.41**	**21.63**

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: March 2023

OILFIELD FLARE EMISSION CALCULATIONS (Ver. 2.0)

Attachment: 10.2-2
Permit Number: PTO 9136-R10
Facility: E&B Gas Plant 10

Fuel Information

Data	*Value*	*Units*	*Reference*
Flare Throughput....................	0.100	MMscf/day	Permit Application
Gas Heat Content....................	1,050	Btu/scf	Permit Application
Sulfur Content........................	796	ppmv as H_2S	Permit Application

Heat Input Data

Value	*Units*	*Reference*
262.500	MMBtu/hour	Daily divided by 24 hr/day
105.000	MMBtu/day	Permit Application
279.500	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	0.1361	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	-	2.49
ROC	-	7.34
CO	-	13.57
SO_x	-	4.99
PM	-	0.73
PM_{10}	-	0.73
$PM_{2.5}$	-	0.73

Processed By: JJM

Date: March 2023

BOILER AND STEAM GENERATOR EMISSION CALCULATIONS (Ver. 7.0)

Attachment: 10.2-3 (Glycol Reboiler H-101)
Permit Number: PTO 9136-R10
Facility: E&B Gas Plant 10

Heater Input Data

Information	*Value*	*Units*	*Reference*
Maximum Hourly Heat Input..........	0.675	MMBtu/hr	Permit Application
Daily Operating Schedule...............	24	hrs/day	Permit Application
Maximum Daily Heat Input............	16.200	MMBtu/day	Calculated value
Yearly Load Factor (%)..................	100	%	Permit Application
Maximum Annual Heat Input.........	5,913.000	MMBtu/yr	Calculated value

Fuel Information

Information	*Value*	*Units*	*Reference*
Fuel..	PUC N.G.	N/A	Permit Application
High Heating Value.........................	1,050	Btu/scf	Permit Application
Sulfur Content of Fuel....................	80.00	ppmvd as H_2S	Permit Application

Emission Factors

Pollutant	*Value*	*Units*	*Reference*
NO_x Emission Factor......................	0.0920	lb/MMBtu	District Rule 360 (20 ppmvd @ 3% O_2)
ROC Emission Factor.....................	0.0054	lb/MMBtu	AP-42, Section 1.4
CO Emission Factor.......................	0.0390	lb/MMBtu	District Rule 360 (400 ppmvd @ 3% O_2)
SO_x Emission Factor.......................	0.0016	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	1.49	0.27
ROC	0.09	0.02
CO	0.63	0.12
SO_x	0.03	0.00
PM	0.12	0.02
PM_{10}	0.12	0.02
$PM_{2.5}$	0.12	0.02

Processed By: JJI

Date: March 2023

BOILER AND STEAM GENERATOR EMISSION CALCULATIONS (Ver. 7.0)

Attachment: 10.2-4 Glycol Reboiler (#2)
Permit Number: PTO 9136-R10
Facility: E&B Gas Plant 10

Heater Input Data

Information	*Value*	*Units*	*Reference*
Maximum Hourly Heat Input..........	0.175	MMBtu/hr	Permit Application
Daily Operating Schedule..............	24	hrs/day	Permit Application
Maximum Daily Heat Input............	4.200	MMBtu/day	Calculated value
Yearly Load Factor (%)..................	100	%	Permit Application
Maximum Annual Heat Input.........	1,533.000	MMBtu/yr	Calculated value

Fuel Information

Information	*Value*	*Units*	*Reference*
Fuel...	PUC N.G.	N/A	Permit Application
High Heating Value.........................	1,050	Btu/scf	Permit Application
Sulfur Content of Fuel....................	80.00	ppmvd as H_2S	Permit Application

Emission Factors

Pollutant	*Value*	*Units*	*Reference*
NO_x Emission Factor......................	0.0920	lb/MMBtu	District Rule 360 (20 ppmvd @ 3% O_2)
ROC Emission Factor.....................	0.0054	lb/MMBtu	AP-42, Section 1.4
CO Emission Factor.......................	0.0390	lb/MMBtu	District Rule 360 (400 ppmvd @ 3% O_2)
SO_x Emission Factor.......................	0.0016	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	0.39	0.07
ROC	0.02	0.00
CO	0.16	0.03
SO_x	0.01	0.00
PM	0.03	0.01
PM_{10}	0.03	0.01
$PM_{2.5}$	0.03	0.01

Processed By: JJI

Date: March 2023

BOILER AND STEAM GENERATOR EMISSION CALCULATIONS (Ver. 7.0)

Attachment: 10.2-5 (Amine Reboiler)
Permit Number: PTO 9136-R10
Facility: E&B Gas Plant 10

Heater Input Data

Information	*Value*	*Units*	*Reference*
Maximum Hourly Heat Input..........	0.650	MMBtu/hr	Permit Application
Daily Operating Schedule..............	24	hrs/day	Permit Application
Maximum Daily Heat Input............	15.600	MMBtu/day	Calculated value
Yearly Load Factor (%)..................	100	%	Permit Application
Maximum Annual Heat Input.........	5,694.000	MMBtu/yr	Calculated value

Fuel Information

Information	*Value*	*Units*	*Reference*
Fuel...	PUC N.G.	N/A	Permit Application
High Heating Value.........................	1,050	Btu/scf	Permit Application
Sulfur Content of Fuel....................	80.00	ppmvd as H_2S	Permit Application

Emission Factors

Pollutant	*Value*	*Units*	*Reference*
NO_x Emission Factor......................	0.0920	lb/MMBtu	District Rule 360 (20 ppmvd @ 3% O_2)
ROC Emission Factor.....................	0.0054	lb/MMBtu	AP-42, Section 1.4
CO Emission Factor.......................	0.0390	lb/MMBtu	District Rule 360 (400 ppmvd @ 3% O_2)
SO_x Emission Factor.......................	0.0016	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	1.44	0.26
ROC	0.08	0.02
CO	0.61	0.11
SO_x	0.02	0.00
PM	0.12	0.02
PM_{10}	0.12	0.02
$PM_{2.5}$	0.12	0.02

Processed By: JJM

Date: March 2023

10.3 IDS Tables

PERMIT POTENTIAL TO EMIT

	NO_x	ROC	CO	SO_x	PM	PM_{10}	$PM_{2.5}$
lb/day	3.31	118.72	1.40	0.06	0.27	0.27	0.27
lb/hr							
TPQ							
TPY	3.09	29.00	13.83	5.01	0.78	0.78	0.78

FACILITY POTENTIAL TO EMIT

	NO_x	ROC	CO	SO_x	PM	PM_{10}	$PM_{2.5}$
lb/day	3.31	118.72	1.40	0.06	0.27	0.27	0.27
lb/hr							
TPQ							
TPY	3.09	29.00	13.83	5.01	0.78	0.78	0.78

STATIONARY SOURCE POTENTIAL TO EMIT

	NO_x	ROC	CO	SO_x	PM	PM_{10}	$PM_{2.5}$
lb/day	239.00	1,180.53	2,833.86	44.79	40.38	40.38	40.38
lb/hr							
TPQ							
TPY	22.59	138.76	105.20	7.61	1.29	1.29	1.29

Notes:
(1) Emissions in these tables are from IDS.
(2) Because of rounding, values in these tables shown as 0.00 are less than 0.005, but greater than zero.

10.4 Fee Statement

Fees for the permit reevaluation of PTO 9136 are based on Fee Schedule A of District Rule 210. The fees are detailed in the attached table.

air pollution control district
SANTA BARBARA COUNTY

FEE STATEMENT
PT-70/Reeval No. 09136 - R10
FID: 03202 Gas Plant 10 / SSID: 01073

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
112423	Gas Processing Unit	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
112424	Recycle Tank	A6	1.000	4.57	Per 1000 gallons	Min	1	1.000	79.24	0.00	0.00	79.24
112425	Fuel Compressor	A2	100.000	41.35	Per total rated hp	No	1	1.000	4,135.00	0.00	0.00	4,135.00
112426	Fuel Surge Tank	A6	3.000	4.57	Per 1000 gallons	Min	1	1.000	79.24	0.00	0.00	79.24
112427	Vacuum Compressor	A2	100.000	41.35	Per total rated hp	No	1	1.000	4,135.00	0.00	0.00	4,135.00
112428	Sales Compressor	A2	100.000	41.35	Per total rated hp	No	1	1.000	4,135.00	0.00	0.00	4,135.00
112429	Recycle Blower	A2	7.500	41.35	Per total rated hp	No	1	1.000	310.13	0.00	0.00	310.13
112430	Rep Tank 1	A6	1.000	4.57	Per 1000 gallons	Min	1	1.000	79.24	0.00	0.00	79.24
112431	Rep Tank 2	A6	1.000	4.57	Per 1000 gallons	Min	1	1.000	79.24	0.00	0.00	79.24
112432	Equalization Tank 1	A6	1.000	4.57	Per 1000 gallons	Min	1	1.000	79.24	0.00	0.00	79.24
112433	Equalization Tank 2	A6	1.000	4.57	Per 1000 gallons	Min	1	1.000	79.24	0.00	0.00	79.24
112434	Purge Tank	A6	1.000	4.57	Per 1000 gallons	Min	1	1.000	79.24	0.00	0.00	79.24
105009	Inlet Filter Separator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
105010	Absorber with Integral Scrubber	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
105011	Flash Tank	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
105013	Amine Still	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
105015	Still Overhead Reflux Accumulator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
105016	Amine Storage Tank	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
105017	Amine Booster Pumps	A2	1.000	41.35	Per total rated hp	Min	2	1.000	158.48	0.00	0.00	158.48
105018	Amine Charge Pumps	A2	1.500	41.35	Per total rated hp	Min	2	1.000	158.48	0.00	0.00	158.48
105019	Charcoal Filter	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
105020	Particulate Sock Filter	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
105022	Still Reflux Pumps	A2	1.500	41.35	Per total rated hp	Min	2	1.000	158.48	0.00	0.00	158.48
101067	Economizer	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101069	Gas Chiller	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101077	Propane Condensers	A1.a	2.000	79.76	Per equipment	No	2	1.000	319.04	0.00	0.00	319.04

101086	Loading Rack	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101061	H2S Removal Vessels	A6	1.000	4.57	Per 1000 gal	Min	2	1.000	158.48	0.00	0.00	158.48
101062	H2S Removal Solution/Gas Scrubbing Vessel	A6	1.000	4.57	Per 1000 gal	Min	1	1.000	79.24	0.00	0.00	79.24
101071	Stabilizer	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
008333	Glycol Reboiler	A3	0.675	598.34	Per 1 million Btu input	No	1	1.000	403.88	0.00	0.00	403.88
008334	Glycol Reboiler	A3	0.170	598.34	Per 1 million Btu input	No	1	1.000	101.72	0.00	0.00	101.72
101060	Flare	A3	262.500	598.34	Per 1 million Btu input	Max	1	1.000	8,006.06	0.00	0.00	8,006.06
105021	Amine Reboiler	A3	0.650	598.34	Per 1 million Btu input	No	1	1.000	388.92	0.00	0.00	388.92
101073	Stabilizer Reboiler	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101064	Inlet Separator	A6	1.000	4.57	Per 1000 gal	Min	1	1.000	79.24	0.00	0.00	79.24
101068	Three-phase Vertical Separator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101070	Oil/Propane Separator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101075	Line Separator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101076	Line Separator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101078	Vapor Recovery Unit Suction Scrubber	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101082	Primary Gas Condensation Inlet Scrubber	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101087	First-stage Inlet Gas Condensate Scrubber	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101089	Second-stage Inlet Gas Condensate Scrubber	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101091	Fuel Gas Condensate Scrubber	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
105255	Sales Gas Scrubber	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101063	Fuel Gas Scrubber	A6	1.000	4.57	Per 1000 gal	Min	1	1.000	79.24	0.00	0.00	79.24
101083	Filter Separator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
105030	Clark Compressor #10	A2	600.000	41.35	Per total rated hp	Max	1	1.000	8,006.06	0.00	0.00	8,006.06
105031	Clark Compressor #12	A2	600.000	41.35	Per total rated hp	Max	1	1.000	8,006.06	0.00	0.00	8,006.06
101080	Vapor Recovery Unit Scrubber Pump	A2	1.000	41.35	Per total rated hp	Min	1	1.000	79.24	0.00	0.00	79.24
390220	Vapor Recovery Unit Compressor	A2	15.000	41.35	Per total rated hp	No	1	1.000	620.25	0.00	0.00	620.25
101065	Propane Surge Tank	A6	33.000	4.57	Per 1000 gal	No	1	1.000	150.81	0.00	0.00	150.81
	Device Fee Sub-Totals =								**$42,217.48**	**$0.00**	**$0.00**	
	Device Fee Total =											**$42,217.48**

Fee Statement Grand Total = $42,217

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.

10.5 Equipment List

PERMIT EQUIPMENT LIST - TABLE A

PT-70/Reeval 09136 R10 / FID: 03202 Gas Plant 10 / SSID: 01073

A PERMITTED EQUIPMENT

1 Nitrogen Removal Unit

1.1 Gas Processing Unit

Device ID #	**112423**	***Device Name***	**Gas Processing Unit**
Rated Heat Input		*Physical Size*	1.00 Installation
Manufacturer		*Operator ID*	MG48-31010
Model		*Serial Number*	
Location Note	Nitrogen Removal Unit, Gas Plant 10		
Device Description	Skid mounted, equipped with four adsorbers each 42 inches in diameter by 139 inches high. Flow: 1.5 MMScf/day nominal Pressure: 100 psig nominal Equipped with four adsorption towers.		

1.2 Recycle Tank

Device ID #	**112424**	***Device Name***	**Recycle Tank**
Rated Heat Input		*Physical Size*	3000.00 Gallons
Manufacturer		*Operator ID*	V306
Model		*Serial Number*	
Location Note	Nitrogen Removal Unit, Gas Plant 10		
Device Description	48 inches in diameter 405 inches long.		

1.3 Fuel Compressor

Device ID #	**112425**	***Device Name***	**Fuel Compressor**
Rated Heat Input		*Physical Size*	100.00 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	MG51-47010
Model		*Serial Number*	
Location Note	Nitrogen Removal Unit, Gas Plant 10		
Device Description			

1.4 Fuel Surge Tank

Device ID #	**112426**	***Device Name***	**Fuel Surge Tank**
Rated Heat Input		*Physical Size*	3000.00 Gallons
Manufacturer		*Operator ID*	V359
Model		*Serial Number*	
Location Note	Nitrogen Removal Unit, Gas Plant 10		
Device Description	48 inches in diameter 405 inches long.		

1.5 Vacuum Compressor

Device ID #	**112427**	***Device Name***	**Vacuum Compressor**
Rated Heat Input		*Physical Size*	100.00 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	MG50-41010
Model		*Serial Number*	
Location Note	Nitrogen Removal Unit, Gas Plant 10		
Device Description			

1.6 Sales Compressor

Device ID #	**112428**	***Device Name***	**Sales Compressor**
Rated Heat Input		*Physical Size*	100.00 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	MG49-51010
Model		*Serial Number*	
Location Note	Nitrogen Removal Unit, Gas Plant 10		
Device Description	2 cylinder reciprocating natural gas compressor. Subject to the CARB GHG regulation.		

1.7 Recycle Blower

Device ID #	**112429**	***Device Name***	**Recycle Blower**
Rated Heat Input		*Physical Size*	7.50 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Nitrogen Removal Unit, Gas Plant 10		
Device Description			

1.8 Rep Tank 1

Device ID #	**112430**	***Device Name***	**Rep Tank 1**
Rated Heat Input		*Physical Size*	1000.00 Gallons
Manufacturer		*Operator ID*	V501A
Model		*Serial Number*	
Location Note	Nitrogen Removal Unit, Gas Plant 10		
Device Description	42 inches in diameter by 193 inches long.		

1.9 Rep Tank 2

Device ID #	**112431**	***Device Name***	**Rep Tank 2**
Rated Heat Input		*Physical Size*	1000.00 Gallons
Manufacturer		*Operator ID*	V501B
Model		*Serial Number*	
Location Note	Nitrogen Removal Unit, Gas Plant 10		
Device Description	42 inches in diameter by 193 inches long.		

1.10 Equalization Tank 1

Device ID #	**112432**	***Device Name***	**Equalization Tank 1**
Rated Heat Input		*Physical Size*	1000.00 Gallons
Manufacturer		*Operator ID*	V303A
Model		*Serial Number*	
Location Note	Nitrogen Removal Unit, Gas Plant 10		
Device Description	42 inches in diameter by 193 inches long.		

1.11 Equalization Tank 2

Device ID #	**112433**	***Device Name***	**Equalization Tank 2**
Rated Heat Input		*Physical Size*	1000.00 Gallons
Manufacturer		*Operator ID*	V303B
Model		*Serial Number*	
Location Note	Nitrogen Removal Unit, Gas Plant 10		
Device Description	42 inches in diameter by 193 inches long.		

1.12 Purge Tank

Device ID #	**112434**	***Device Name***	**Purge Tank**
Rated Heat Input		*Physical Size*	1000.00 Gallons
Manufacturer		*Operator ID*	V304
Model		*Serial Number*	
Location Note	Nitrogen Removal Unit, Gas Plant 10		
Device Description			

2 CO2 Removal Equipment

2.1 Inlet Filter Separator

Device ID #	**105009**	***Device Name***	**Inlet Filter Separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-300
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 8 inches, height: 6 feet seam to seam.		

2.2 Absorber with Integral Scrubber

Device ID #	**105010**	***Device Name***	**Absorber with Integral Scrubber**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-400
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	(V-400), diameter: 18 inches, height: 41 feet 1 inch seam to seam, contains two 15 foot tall sections packed with 5/8 inch diameter 304 SS pall rings.		

2.3 Flash Tank

Device ID #	**105011**	***Device Name***	**Flash Tank**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-500
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 30 inches, height: 8 feet seam to seam.		

2.4 Amine Still

Device ID #	**105013**	***Device Name***	**Amine Still**
Rated Heat Input		*Physical Size*	
Manufacturer	High Country Fabricators	*Operator ID*	V-700
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 12.75 inches, height: 45 feet 1 inch seam to seam, contains two 15 foot tall sections packed with 1 inch 304 SS nutter rings.		

2.5 Still Overhead Reflux Accumulator

Device ID #	**105015**	***Device Name***	**Still Overhead Reflux Accumulator**
Rated Heat Input		*Physical Size*	
Manufacturer	High Country Fabricators	*Operator ID*	V-710
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 18 inches, height: 5 feet seam to seam.		

2.6 Amine Storage Tank

Device ID #	**105016**	***Device Name***	**Amine Storage Tank**
Rated Heat Input		*Physical Size*	
Manufacturer	High Country Fabricators	*Operator ID*	V-800
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 36 inches, length: 12 feet seam to seam.		

2.7 Amine Booster Pumps

Device ID #	**105017**	***Device Name***	**Amine Booster Pumps**
Rated Heat Input		*Physical Size*	10.00 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	P-800A & B
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description			

2.8 Amine Charge Pumps

Device ID #	**105018**	***Device Name***	**Amine Charge Pumps**
Rated Heat Input		*Physical Size*	1.50 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	P-801A & B
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description			

2.9 Charcoal Filter

Device ID #	**105019**	***Device Name***	**Charcoal Filter**
Rated Heat Input		*Physical Size*	
Manufacturer	High Country Fabricators	*Operator ID*	F-100
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 30 inches, height: 6 feet 10 inches seam to seam.		

2.10 Particulate Sock Filter

Device ID #	**105020**	***Device Name***	**Particulate Sock Filter**
Rated Heat Input		*Physical Size*	
Manufacturer	High Country Fabricators	*Operator ID*	F-300
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 10.75 inches, height: 3 feet 3.5 inches seam to seam.		

2.11 Still Reflux Pumps

Device ID #	**105022**	***Device Name***	**Still Reflux Pumps**
Rated Heat Input		*Physical Size*	1.50 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	P-700A & B
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description			

3 Miscellaneous Equipment

3.1 Economizer

Device ID #	**101067**	***Device Name***	**Economizer**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-202
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 2.0 feet, length: 7.0 feet.		

3.2 Gas Chiller

Device ID #	**101069**	***Device Name***	**Gas Chiller**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	E-102
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 26.0 inches, length: 14.0 feet.		

3.3 Propane Condensers

Device ID #	**101077**	***Device Name***	**Propane Condensers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	C-56A & C-56B
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Total area: 15,500 square feet.		

3.4 Loading Rack

Device ID #	**101086**	***Device Name***	**Loading Rack**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Used to load NGL into highway tanker truck.		

3.5 H2S Removal Equipment

3.5.1 H2S Removal Vessels

Device ID #	**101061**	***Device Name***	**H2S Removal Vessels**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-304 & V-305
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter (each): 6.0 feet, height (each): 20.0 feet, scrubbing medium (each): sulfa-check (or equivalent).		

3.5.2 H2S Removal Solution/Gas Scrubbing Vessel

Device ID #	**101062**	***Device Name***	**H2S Removal Solution/Gas Scrubbing Vessel**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-303
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 2.0 feet, length: 10.0 feet.		

3.6 Stabilizer

Device ID #	**101071**	***Device Name***	**Stabilizer**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	T-101
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 16.0 inches, length: 44.0 feet.		

4 Fugitive Hydrocarbon Components

4.1 Fugitive Hydrocarbon Components - Liquid Service

4.1.1 Valves - Liquid Service

Device ID #	**105000**	*Device Name*	**Valves - Liquid Service**
Rated Heat Input		*Physical Size*	90.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description			

4.1.2 Flanges/Connections - Liquid Service

Device ID #	**105001**	*Device Name*	**Flanges/Connections - Liquid Service**
Rated Heat Input		*Physical Size*	80.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description			

4.2 Fugitive Hydrocarbon Components - Gas Service

4.2.1 Valves - Gas Service

Device ID #	**008323**	*Device Name*	**Valves - Gas Service**
Rated Heat Input		*Physical Size*	851.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	From ATC 12913: NRU Main Skid: 43 clps NRU Sales Compressor: 11 clps NRU Field Fuel Compressor: 11 clps		

4.2.2 Valves - Unsafe to Monitor - Gas Service

Device ID #	**008325**	***Device Name***	**Valves - Unsafe to Monitor - Gas Service**
Rated Heat Input		*Physical Size*	15.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Major valves utm: 0 clp Minor valves utm: 15 clp		

4.2.3 Connections/Flanges - Gas Service

Device ID #	**008327**	***Device Name***	**Connections/Flanges - Gas Service**
Rated Heat Input		*Physical Size*	6414.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	From ATC 12913: Main NRU Skid: 114 clps NRU Sales Compressor: 89 clps NRU Field Fuel Compressor: 89 clps		

4.2.4 Flanges/Connections - Unsafe to Monitor - Gas Service

Device ID #	**008328**	***Device Name***	**Flanges/Connections - Unsafe to Monitor - Gas Service**
Rated Heat Input		*Physical Size*	62.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description			

4.2.5 Compressor Seals (sealed) - Gas Service

Device ID #	**008330**	***Device Name***	**Compressor Seals (sealed) - Gas Service**
Rated Heat Input		*Physical Size*	14.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	VRU - 2 seals Compressors 10,11,& 12 - 2 seals each		

4.2.6 Pump Seals - Gas Service

Device ID #	**008331**	***Device Name***	**Pump Seals - Gas Service**
Rated Heat Input		*Physical Size*	4.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description			

4.2.7 Relief Valves to Atmosphere - Gas Service

Device ID #	**008332**	***Device Name***	**Relief Valves to Atmosphere - Gas Service**
Rated Heat Input		*Physical Size*	27.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	From ATC 12913: Main NRU Skid: 12 clps NRU Sales Compressor: 3 clps NRU Field Fuel Compressor: 3 clps		

4.2.8 Compressor Seals to Atmosphere - Gas Service

Device ID #	**008329**	***Device Name***	**Compressor Seals to Atmosphere - Gas Service**
Rated Heat Input		*Physical Size*	5.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	NRU Sales Compressor: 2 clps NRU Field Fuel Compressor: 1 clp Recycle Blower: 1 clp Vacuum Compressor: 1 clp		

5 Heat Service Equipment

5.1 Glycol Reboiler

Device ID #	**008333**	***Device Name***	**Glycol Reboiler**
Rated Heat Input	0.675 MMBtu/Hour	*Physical Size*	0.67 MMBtu/Hour
Manufacturer		*Operator ID*	H-101
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	The vent stack is connected to the vapor recovery unit suction scrubber V-601 and vapor recovery compressor.		

5.2 Glycol Reboiler

Device ID #	**008334**	***Device Name***	**Glycol Reboiler**
Rated Heat Input	0.170 MMBtu/Hour	*Physical Size*	0.17 MMBtu/Hour
Manufacturer		*Operator ID*	H-102
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description			

5.3 Flare

Device ID #	**101060**	***Device Name***	**Flare**
Rated Heat Input	262.500 MMBtu/Hour	*Physical Size*	262.50 MMBtu/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 1.0 foot, height: 30.0 feet, equipped with automatic electronic ignition and non-continuous flare pilot.		

5.4 Amine Reboiler

Device ID #	**105021**	***Device Name***	**Amine Reboiler**
Rated Heat Input	0.650 MMBtu/Hour	*Physical Size*	0.65 MMBtu/Hour
Manufacturer	High Country Fabricators	*Operator ID*	H-700
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 36 inches, length: 21 feet seam to seam, burner manufacturer: B&W Inc.		

5.5 Stabilizer Reboiler

Device ID #	**101073**	***Device Name***	**Stabilizer Reboiler**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	E-104
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 10.0 inches, length: 10.0 feet.		

6 Scrubbers & Separators

6.1 Inlet Separator

Device ID #	**101064**	***Device Name***	**Inlet Separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-101
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 1.0 foot, length: 4.0 feet.		

6.2 Three-phase Vertical Separator

Device ID #	**101068**	***Device Name***	**Three-phase Vertical Separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-103
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 3.0 feet, length: 8.5 feet.		

6.3 Oil/Propane Separator

Device ID #	**101070**	***Device Name***	**Oil/Propane Separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-105
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 0.5 foot, length: 1.5 feet.		

6.4 Line Separator

Device ID #	**101075**	***Device Name***	**Line Separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-301
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 14.0 inches, length: 38.0 inches.		

6.5 Line Separator

Device ID #	**101076**	***Device Name***	**Line Separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-302
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 6.6 inches, length: 29.0 inches.		

6.6 Vapor Recovery Unit Suction Scrubber

Device ID #	**101078**	***Device Name***	**Vapor Recovery Unit Suction Scrubber**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-601
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 1.0 foot, length: 3.0 feet. Serving glycol reboiler H-101.		

6.7 Primary Gas Condensation Inlet Scrubber

Device ID #	**101082**	***Device Name***	**Primary Gas Condensation Inlet Scrubber**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-110
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 3.0 feet, height: 13.0 feet.		

6.8 First-stage Inlet Gas Condensate Scrubber

Device ID #	**101087**	***Device Name***	**First-stage Inlet Gas Condensate Scrubber**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-51
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 6.0 feet, height: 26.0 feet.		

6.9 Second-stage Inlet Gas Condensate Scrubber

Device ID #	**101089**	***Device Name***	**Second-stage Inlet Gas Condensate Scrubber**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-61
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 6.0 feet, height: 20.0 feet.		

6.10 Fuel Gas Condensate Scrubber

Device ID #	**101091**	***Device Name***	**Fuel Gas Condensate Scrubber**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-150
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 2.0 feet, height: 12.0 feet.		

6.11 Sales Gas Scrubber

Device ID #	**105255**	***Device Name***	**Sales Gas Scrubber**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-150B
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 24”, Height: 8 feet, Connected to the gas gathering system.		

6.12 Fuel Gas Scrubber

Device ID #	**101063**	***Device Name***	**Fuel Gas Scrubber**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-104
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 6.0 inches, length: 15.0 inches. Serving glycol reboiler H-101.		

6.13 Filter Separator

Device ID #	**101083**	***Device Name***	**Filter Separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-120
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Consisting of two connected vessels [one on top of the other], diameter (each): 16.0 inches, length (each): 16.3 feet.		

7 Pumps and Compressors

7.1 Clark Compressor #10

Device ID #	**105030**	***Device Name***	**Clark Compressor #10**
Rated Heat Input		*Physical Size*	600.00 Horsepower (Electric Motor)
Manufacturer	Clark	*Operator ID*	#10
Model	HRA-6T	*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Driven exclusively by an electric motor.		

7.2 Clark Compressor #12

Device ID #	**105031**	***Device Name***	**Clark Compressor #12**
Rated Heat Input		*Physical Size*	600.00 Horsepower (Electric Motor)
Manufacturer	Clark	*Operator ID*	#12
Model	HRA-6T	*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Driven exclusively by an electric motor. The removal of the gas-fired ICE from Clark #12 resulted in the creation of NOx, ROC, and CO ERCs per Decision of Issuance (DOI) #0033.		

7.3 Vapor Recovery Unit Scrubber Pump

Device ID #	**101080**	***Device Name***	**Vapor Recovery Unit Scrubber Pump**
Rated Heat Input		*Physical Size*	1.00 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	P-103
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Electric motor horsepower rating: 1.0.		

7.4 Vapor Recovery Unit Compressor

Device ID #	**390220**	***Device Name***	**Vapor Recovery Unit Compressor**
Rated Heat Input		*Physical Size*	15.00 Brake Horsepower
Manufacturer	Quincy	*Operator ID*	
Model	QR 5120	*Serial Number*	UTY450679
Location Note	Gas Plant 10		
Device Description	Serving glycol reboiler H-101 and the amine reboiler H-700.		

8 Tanks

8.1 Propane Surge Tank

Device ID #	**101065**	***Device Name***	**Propane Surge Tank**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-201
Model		*Serial Number*	
Location Note	Gas Plant 10		
Device Description	Diameter: 3.0 feet, length: 8.2 feet.		

B EXEMPT EQUIPMENT

1 Lubrication Oil Storage Tanks

Device ID #	**101098**	***Device Name***	**Lubrication Oil Storage Tanks**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-59A & V-59B
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.3 Storage Of Lubricating Oils	
Location Note	Gas Plant 10		
Device Description	diameter (each): 6.0 feet, height (each): 10.0 feet.		

2 Painting and Solvent Use for Maintenance

Device ID #	**101095**	***Device Name***	**Painting and Solvent Use for Maintenance**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.D.14 Architectural Coating (repair & maint) of a Stationary Structure	
Location Note	Gas Plant 10		
Device Description			

3 Lubrication Oil Storage Tanks

Device ID #	**101099**	***Device Name***	**Lubrication Oil Storage Tanks**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-55A & V-55B
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.3 Storage Of Lubricating Oils	
Location Note	Gas Plant 10		
Device Description	Diameter (each): 9.0 feet, height (each): 15.0 feet.		

4 Above Ground Diesel Fuel Oil Storage Tank

Device ID #	**101104**	***Device Name***	**Above Ground Diesel Fuel Oil Storage Tank**
Rated Heat Input		*Physical Size*	10000.00 Gallons
Manufacturer		*Operator ID*	V-19
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.2 Storage Of Refined Fuel Oil W/Grav <=40 Api	
Location Note	Gas Plant 10		
Device Description			

5 Above Ground Solvent Storage Tank

Device ID #	**101106**	***Device Name***	**Above Ground Solvent Storage Tank**
Rated Heat Input		*Physical Size*	10000.00 Gallons
Manufacturer		*Operator ID*	V-20
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.1 Unheat Storage Of Lqd Org Mtls W/Bp >=300 @ 1 Atm	
Location Note	Gas Plant 10		
Device Description	Material stored: mineral spirits.		

6 Fin Fan Cooler

Device ID #	**101081**	***Device Name***	**Fin Fan Cooler**
Rated Heat Input		*Physical Size*	20.00 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	C-56D & C-56E
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.L.1 Heat Exchangers	
Location Note	Gas Plant 10		
Device Description	Cooler C-56D serves the first stage gas discharge from the gas compressors and C-56E serves the second stage gas discharge from the gas compressors; driven by electric motors (2), horsepower rating (each): 20.0.		

7 Gas/Gas Heat Exchanger

Device ID #	**101066**	***Device Name***	**Gas/Gas Heat Exchanger**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	E-101
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.L.1 Heat Exchangers	
Location Note	Gas Plant 10		
Device Description	Diameter: 16.0 inches, length: 20.0 feet.		

8 NGL/Gas Heat Exchanger

Device ID #	**101072**	***Device Name***	**NGL/Gas Heat Exchanger**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	E-107
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.L.1 Heat Exchangers	
Location Note	Gas Plant 10		
Device Description	Diameter: 4.0 inches, length: 8.0 feet.		

9 Glycol Storage Vessel

Device ID #	**101109**	***Device Name***	**Glycol Storage Vessel**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-21B
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.1 Unheat Storage Of Lqd Org Mtls W/Bp >=300 @ 1 Atm	
Location Note	Gas Plant 10		
Device Description	Diameter: 108 inches, Height: 20 feet 6 inches.		

10 Abrasive Blasting Unit

Device ID #	**101092**	***Device Name***	**Abrasive Blasting Unit**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.H.3 Portable Abrasive Blast Equipment	
Location Note	Gas Plant 10		
Device Description			

11 Still Overhead Condenser and Amine Cooler

Device ID #	**105014**	***Device Name***	**Still Overhead Condenser and Amine Cooler**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	AE-100A & 100B
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.L.1 Heat Exchangers	
Location Note	Gas Plant 10		
Device Description	100A: Duty: 0.432 MMBtu/hour and 100B duty: 0.224 MMBtu/hour, equipped with a 10 hp electric motor.		

12 Storage of Drums of Lubrication Oils

Device ID #	**101093**	***Device Name***	**Storage of Drums of Lubrication Oils**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.3 Storage Of Lubricating Oils	
Location Note	Gas Plant 10		
Device Description			

13 Amine Storage Vessel

Device ID #	**105256**	***Device Name***	**Amine Storage Vessel**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	V-21A
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 201.A No Potential To Emit Air Contaminants	
Location Note	Gas Plant 10		
Device Description	Diameter 108 inches, Height 20 feet 6 inches		

14 Storage of Oils with IBP 300° F or Greater

Device ID #	**101094**	***Device Name***	**Storage of Oils with IBP 300° F or Greater**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.1 Unheat Storage Of Lqd Org Mtls W/Bp >=300 @ 1 Atm	
Location Note	Gas Plant 10		
Device Description			

15 Amine to Amine Heat Exchanger

Device ID #	**105012**	***Device Name***	**Amine to Amine Heat Exchanger**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	E-600
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.L.1 Heat Exchangers	
Location Note	Gas Plant 10		
Device Description	Duty: 0.438 MMBtu/hour.		

16 Compressor Jacket Water Fin Fan Cooler

Device ID #	**101096**	***Device Name***	**Compressor Jacket Water Fin Fan Cooler**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.L.1 Heat Exchangers	
Location Note	Gas Plant 10		
Device Description			

17 Fresh Water Storage Tank

Device ID #	**101097**	***Device Name***	**Fresh Water Storage Tank**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 201.A No Potential To Emit Air Contaminants	
Location Note	Gas Plant 10		
Device Description			

18 Lubrication Oil Dispensing Pump

Device ID #	**101100**	***Device Name***	**Lubrication Oil Dispensing Pump**
Rated Heat Input		*Physical Size*	5.00 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	P-56A
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.3 Storage Of Lubricating Oils	
Location Note	Gas Plant 10		
Device Description			

19 Lubrication Oil Transfer Pump

Device ID #	**101101**	***Device Name***	**Lubrication Oil Transfer Pump**
Rated Heat Input		*Physical Size*	5.00 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	P-56
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.3 Storage Of Lubricating Oils	
Location Note	Gas Plant 10		
Device Description			

20 Lubrication Oil Unloading Station

Device ID #	**101102**	***Device Name***	**Lubrication Oil Unloading Station**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.3 Storage Of Lubricating Oils	
Location Note	Gas Plant 10		
Device Description			

21 Compressed Air Storage Vessel

Device ID #	**101103**	***Device Name***	**Compressed Air Storage Vessel**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 201.A No Potential To Emit Air Contaminants	
Location Note	Gas Plant 10		
Device Description			

22 Single-Product Diesel Dispenser

Device ID #	**101105**	***Device Name***	**Single-Product Diesel Dispenser**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.2 Storage Of Refined Fuel Oil W/Grav <=40 Api	
Location Note	Gas Plant 10		
Device Description	Nozzles: 1.		

23 Glycol Filters

Device ID #	**101107**	***Device Name***	**Glycol Filters**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.1 Unheat Storage Of Lqd Org Mtls W/Bp >=300 @ 1 Atm	
Location Note	Gas Plant 10		
Device Description			

24 Glycol Pump

Device ID #	**101108**	***Device Name***	**Glycol Pump**
Rated Heat Input		*Physical Size*	3.00 Horsepower (Electric Motor)
Manufacturer	Roper	*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.1 Unheat Storage Of Lqd Org Mtls W/Bp >=300 @ 1 Atm	
Location Note	Gas Plant 10		
Device Description			

25 Refrigerant Propane Storage Vessel

Device ID #	**105257**	***Device Name***	**Refrigerant Propane Storage Vessel**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 202.V.8 Storage Of Liquefied/Compressed Gases	
Location Note	Gas Plant 10		
Device Description	Serving V-201, Diameter: 36 inches, Length: 12 feet.		