



air pollution control district
SANTA BARBARA COUNTY

**PERMIT to OPERATE 7250-R12
and
PART 70 OPERATING PERMIT 7250**

**E&B Natural Resources Management Corporation
South Cuyama Unit**

**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

AP-42	USEPA's <i>Compilation of Emission Factors</i>
API	American Petroleum Institute
ASTM	American Society for Testing Materials
ATC	Authority to Construct
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
FID	facility ID number
FUMP	Fuel Use Monitoring Plan
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 ₂ S	hydrogen sulfide
I&M	inspection & maintenance
l	liter
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 liquid
NOV	Notice of Violation
NSCR	Non-Selective Catalytic Reduction
NSPS	New Source Performance Standards
O ₂	oxygen
PERP	Portable Engine Registration Program
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
SSID	stationary source ID number
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
VOC	volatile organic compounds, also known as "ROC" throughout California
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 7250*) as well as the District Operating Permit (*Permit to Operate 7250-R12*).

Santa Barbara County is designated as a non-attainment area for the state PM₁₀ 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) South Cuyama Unit 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. The South Cuyama Unit is a part of the E&B stationary source, which is a major source for VOC¹, 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

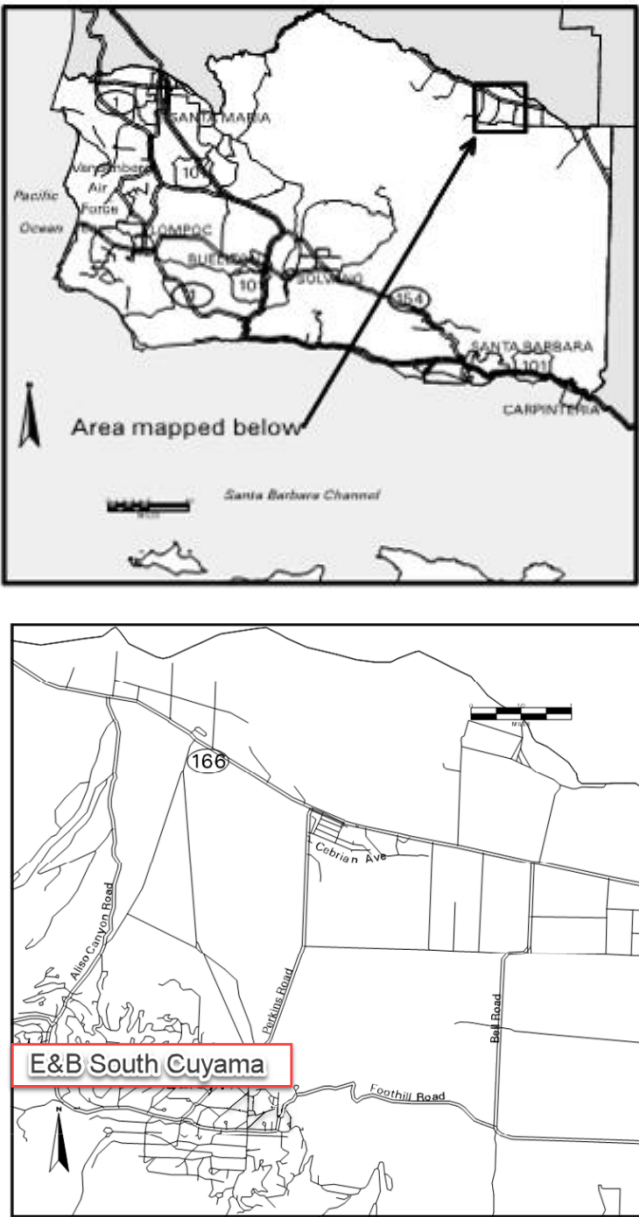
- 1.2.1 Facility Overview: E&B Natural Resources Management Corporation (E&B) is the sole owner and operator of the South Cuyama Stationary Source, which includes the South Cuyama Unit.

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 County². Figure 1.1 shows the location of the facility.

² District Rule 102, Definition: “Northern Zone”

Figure 1.1 - Location Map for 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 Engines (FID# 8916)

The source consists of oil and gas wells and tank farms 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 and water from the gas and strips out the NGLs. The NGLs are piped to Tank Battery #6 and blended with the produced oil. Dry gas is used for fuel, with residual gas sold to the utility or reinjected into one of the gas injection wells.

This permit covers the South Cuyama Unit and does not include the internal combustion engines (ICEs) or Gas Plant 10. The South Cuyama Unit facility consists of the following:

- Producing Wells
- Injection Wells
- Pipe Lines
- Tank Farms:
 - Wash Tanks
 - Separators
 - Test Tanks
 - Stock Tanks
 - LACT Tanks
 - Vapor Recovery Systems
 - Petroleum Produced Water Sumps and Pits
 - Produced Water Injection System
 - Plus all accessory equipment
- Facility Support Systems
- Gas Station

Oil, gas, and water are produced from wells and pumped to Tank Farms #6 and #18. At each tank farm the incoming fluid enters an inlet separator. Oil and water from the separator flow to a wash tank where water is removed. The oil is piped to the stock/LACT tanks. The produced crude is transferred via the individual LACTs and sent via the pipeline to E&B's Cuyama Pump Station. The crude is metered through a LACT at the pump station before it is loaded via a loading rack into a tanker truck for delivery to a refinery. Each tank farm has at least one produced water pit in secondary service. These pits are maintained in a method consistent with exemptions provided in or requirements set forth in District Rule 344.

Water from the wash tanks flows to one of the water treating tank farms. At the water treating tank farms, produced water enters a second wash tank. The water from the wash tank continues on to one of the two produced water tanks, and then is re-injected into the formation in one of the water injection wells. At the produced water treating facilities, large post tertiary emergency pits exist.

The vapor recovery gas from the tank farms is blended with the produced gas and is sent to Gas Plant 10 for treating. Gas evolving from the separator at the tank farm is combined with casing gas and is also routed to Gas Plant 10 (FID# 3202) for dehydration and removal of sulfur compounds. The South Cuyama Unit is permitted to produce 2,558 bbls/day of oil.

Also included in this permit is a motor vehicle fueling facility consisting of one aboveground storage tank and dispensing cabinet with Phase I and Phase II vapor recovery. The tank capacity is 1,500 gallons and the dispenser has one nozzle.

- 1.2.2 **Facility Permit Overview:** Table 1.1 provides a summary of the permits issued for this facility since the last permit reevaluation. This permit directly incorporates PT-70 ADM 16097, which authorizes a change to the responsible official.

Table 1.1 - Permit History

PERMIT	FINAL ISSUED	PERMIT DESCRIPTION
PTO 7250-R11	06/19/2020	Permit Renewal.
ATC 15370	10/21/2020	Install JGR/2 Compressor.
PTO 15528	10/06/2021	Operate JGR/2 Compressor.
PT-70 ADM 16097	Upon Issuance	Change to the responsible official.

1.3 **Emission Sources**

The emissions from the South Cuyama Unit come from oil and gas wells, tanks, vapor recovery systems, sumps and pits, pumps, and fugitive emission components, such as 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:

- Two hundred seventeen (217) oil and gas wells
- One hundred ninety seven (197) well cellars. Two well cellars were removed as part of ATC 13864 issued November 1, 2012. Twenty well cellars were removed per PTO 7250-04 issued June 3, 2016. DOI 0086 was issued on October 4, 2013.
- Fugitive emission components, such as valves and flanges.
- There are 15 tank farms, but only 2 are in service; Tank Farms #6 and #18.
- One gasoline tank with one nozzle, served by phase I and phase II vapor recovery

A list of all permitted equipment is provided in Section 10.5.

1.4 **Emission Control Overview**

Air quality emission controls are utilized at the South Cuyama Unit for a number of emission units. Emission controls employed at the facility include:

- Vapor Recovery Systems connected to various wash tanks, LACT tanks, stock tanks, and test tanks,
- 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 District Rule 331.
- A tank degassing plan to reduce emissions that would occur while degassing tanks for maintenance.

- A program to keep well cellars and emergency pits pumped out consistent with the requirements of District Rule 344.
- Phase I and Phase II gasoline dispensing tank vapor recovery systems.

1.5 Offsets/Emission Reduction Credit Overview

Decision of Issuance (DOI) 0033 created NO_x, ROC, and CO ERCs from the electrification of the Clark #12 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 to create ROC ERCs by filling in twenty well cellars at the South Cuyama Unit. The well cellars were filled with soil, but the wells remain active.

The replacement of the Perkins produced water tank west (ATC 14903), the installation of vapor recovery systems on the Perkins produced water tanks (ATC 14959), installation of the Machader produced water tanks (ATC 14960), replacement of the wash tank at Tank Farm 18 (ATC 14982), installation of a new wash tank at Tank Farm 18 (ATC 15098), installation of a new produced water tank at the Machader Tank Farm (ATC 15217), replacement of the produced water tank floor at the Machader Tank Farm (ATC 15370), and the installation of an Ariel compressor (ATC 15528) triggered offset requirements for ROCs. E&B provided ERCs for these projects. See Tables 7(a) and 7(b) in Section 7.4 below for additional details.

1.6 Part 70 Operating Permit Overview

- 1.6.1 Federally-enforceable Requirements: All federally-enforceable requirements are listed in 40 CFR Part 70.2 (*Definitions*) under “applicable requirements.” These include all SIP-approved District Rules, all conditions in the District-issued Authority to Construct permits, and all conditions applicable to major sources under federally promulgated rules and regulations. 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 and Table 5.5 and Attachment 10.7 for the Insignificant Emissions Units 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. 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:

Mr. 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

Oil, water, and gas are produced from 217 wells. Historically, the API gravity of the crude oil is approximately 31 with a gas oil ratio of approximately 3,000 scf/bbl. Internal combustion engines (PTO 8010) and electric motors provide power to the pumping units. Production may be piped to one of fifteen tank farms located throughout the oil field which are used to separate oil, water, and gas from multiple wells. Each tank farm includes one or more produced water pits, one or more gas/liquid separators, pumps and compressors. Oil is shipped via pipeline to the E&B Natural Resource Cuyama Pump Station. Gas is processed at E&B's Gas Plant 10. The dry gas stream is used as fuel, re-injected, and/or sold. The natural gas liquids (NGLs) are piped to Tank Battery #6 and blended with the produced oil. Produced water is treated at the Machader and Perkins Produced Water Treatment Plants and re-injected into the producing formation by injection pumps driven by internal combustion engines or electric motors.

- 2.1.1 Production: The South Cuyama Unit includes 217 oil and gas production wells. Of these wells, approximately 83 are active producers and 134 are shut-in. The producing wells are equipped with artificial lift downhole pumps driven by either natural gas engines or electric motors. The natural gas engines are considered a separate facility and included in a separate permit (FID# 08916, PTO 8010). One hundred ninety seven (197) wells are equipped with a well cellar with a diameter of 6 feet. Production is fed into one of two main tank farms where oil is separated from gas and water. Produced water is re-injected into the lease in one of approximately 20 to 40 injection wells. The production at the South Cuyama Unit is limited to 2,558 bbl per day of dry oil production and 6,000,000 SCF per day of wet gas production pursuant to an application for a PTO Modification received on September 25, 1991. Produced gas is sent directly to Gas Plant 10 (FID# 3202, PTO 9136).
- 2.1.2 Gas, Oil, and Water Separation: Oil, gas, and water are produced from wells and pumped to Tank Farms #6 and #18. At each tank farm the incoming fluid enters an inlet separator. Oil and water from the separator flow to a wash tank where water is removed. The oil is piped to the stock/LACT tanks. The produced crude is transferred via the individual LACTs and sent via the pipeline to E&B's Cuyama Pump Station. The crude is metered through a LACT at the pump station before it is loaded via a loading rack into a tanker truck for delivery to a refinery. Each tank farm has at least one produced water pit in secondary service. These pits must be maintained in a method consistent with exemptions provided in or requirements set forth in District Rule 344.
- 2.1.3 Crude Oil Storage and Oil-Water Separation Tanks: The South Cuyama Unit utilizes various fixed roof tanks ranging in size from 1,000 bbl to 10,000 bbl for separation of oil and water and for crude oil storage.

ROC Control – Most of the tanks that are permitted for use are controlled with vapor recovery units while others are exempt from control. Gas collected with the vapor recovery units is blended with produced gas and sent to Gas Plant 10. Fugitive ROC emissions from valves, flanges and piping are reduced through the implementation of a District Rule 331-required inspection and maintenance (I&M) program.

- 2.1.4 Produced Unit: Water received from the wash tanks at the tank farms is sent to either the Machader or Perkins Produced Water Treatment Plants where it is treated through a series of tanks which are exempt from Rule 325 requirements pursuant to the vapor pressure exemption. It is then disposed by re-injecting through water injection wells. Both produced water treatment plants have emergency pits and post tertiary pits being operated in a manner consistent with or exempt from the requirements of Rule 344.

2.2 Support Systems

Support units at the South Cuyama Unit consist of the following:

- 2.2.1 Vapor Recovery Systems: Each tank farm that is in operation is served by a vapor recovery system to collect ROC emissions from tanks. These vapors are scrubbed and compressed. After the compression, the vapors are combined with field gas in the main collection system. Overall ROC control efficiency for the system is 95-percent.
- 2.2.2 Gas Station: The gas station is located next to the field office. This facility (formerly FID# 1956) had a separate permit (PT0 7694) but in 1998 was consolidated into the South Cuyama Unit permit (PTO 7250) in order to streamline the Part 70 permitting process.
- 2.2.3 Pigging Equipment: A pig receiver and associated equipment are operated to service the 3" natural gas transmission line that runs between Russel Ranch in San Luis Obispo County and Gas Plant 1. The equipment was originally installed under ATC 14751 under the Gas Plant 10 facility. As part of the issuance of Reeval 7250-R11, it was determined that the equipment was actually installed outside the fence line of Gas Plant 10, therefore the equipment and associated emissions were transferred to the SCU facility.

2.3 Maintenance/Degreasing Activities

- 2.3.1 Paints and Coatings: Intermittent surface coating operations are conducted throughout the facility for occasional structural and equipment maintenance needs, including architectural coating. Coating use can range from small to large annual volumes depending on the facility maintenance schedule. Normally only touch-up and equipment labeling or tagging is performed. All architectural coatings used are in compliance with District Rule 323.1.
- 2.3.2 Solvent Usage: Solvents not used for surface coating thinning may be used at the South Cuyama Unit for daily maintenance operations. Uses include cold solvent degreasing and wipe cleaning with rags.

2.4 Planned Process Turnarounds

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

2.5 Other Processes

- 2.5.1 Pits: Each tank farm includes at least one pit. The produced water plants have large post-tertiary pits that are also classified as emergency pits and are used to hold produced water that has already undergone at least three stages of separation. Post-tertiary pits are exempt from the requirements of Rule 344. The emergency pits are exempt from District Rule 344 requirements provided they are used less than 30-days per year. Pits are in use when either receiving or storing petroleum product. All of the pits located at the tank farms are exempt from Rule 344 because they have a surface area less than 1,000 square feet.

- 2.5.2 Unplanned Activities/Emissions: E&B does not anticipate or foresee any circumstances that would require use of special equipment and result in excess emissions.

2.6 **Detailed Process Equipment Listing**

Refer Attachment 10.5 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 10.5 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.8)

Note: Although the process heater at the Perkins Produced water Treatment Plant is currently fired by natural gas that meets PUC General Order 58-A which would qualify it for permit exemption, E&B has elected not to claim the permit exemption in order to allow the flexibility to use non-PUC quality gas.

- District Rule 321 (Solvent Cleaning Operations): Rule 321.B.4 exempts solvent wipe cleaning operations.
- District Rule 325 (Crude Oil Production and Separation): Section B.1.a exempts tanks processing crude oil having a vapor pressure at the initial tank entry point of less than 0.5 psia. E&B takes advantage of this exemption for the following tanks: Machader 2,000 bbl produced water tanks, Perkins 2,000 bbl produced water tanks.
- District Rule 331 (Fugitive Emission Inspection and Maintenance): The following exemptions were applied for in E&B's *Fugitive Emission Inspection and Maintenance Plan* and approved by the District:
 - Section B.2.b for components buried below the ground.
 - Section B.3.b for components handling liquids or gases with ROC concentrations less than 10-percent by weight.
 - Section B.4 for components that are unsafe to monitor.

- District Rule 342 (Control of Oxides of Nitrogen from Boiler, Steam Generators and Process Heaters): Section A states that boilers, steam generators and process heaters with heat inputs greater than 5,000 MBtu/hour are subject to the Rule. No equipment at this facility is subject to the Rule.
- 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 when documentation is submitted 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.
- District Rule 344 (Petroleum Sumps, Pits and Well Cellars): All of the secondary and tertiary pits at the South Cuyama Unit have surface areas less than 1,000 sq. ft., and thus are exempt from this rule based on Section B.4. The post-tertiary pits are exempt from this rule. In addition, Section B.5 provides an exemption for well cellars at wells that have been idle for more than six months prior to inspection.

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}: Most of the tanks at South Cuyama Unit were installed prior to the applicability of Subpart K, Kb and Ka. The tanks installed after the applicability dates of the standards are exempt since the size of the tanks in question is under the exemption level for processing that occurs prior to custody transfer.
- 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 currently is not subject to the provisions of this Subpart. The previous operator submitted information in July 2000 indicating its source is exempt from the requirements of MACT based on its ‘black oil’ production per section 63.760(e)(1) of the subpart. On October 20, 2000 the District issued a letter to Hallador (the previous owner of the South Cuyama Unit) agreeing with this exemption.
- 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 the South Cuyama Unit. Table 3.1 lists the federally-enforceable District promulgated rules that are “generic” and apply to the facility. Table 3.2 lists the federally-enforceable District promulgated rules that are “unit-

specific” that apply to the South Cuyama Unit. These tables are based on data available from the District’s administrative files and from E&B’s Part 70 Operating Permit renewal application. The 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 the South Cuyama Unit 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. All tanks required to be connected to vapor recovery at this facility are connected to the facility vapor recovery system and therefore satisfy the requirements of the CARB regulation through the use of vapor recovery. This facility is exempt from the leak detection and repair (LDAR) requirements of the CARB regulation per Section 95669(b)(1), which exempts components, including components found on tanks, separators, wells and pressure vessels, that are subject to District Rule 331 LDAR requirements prior to January 1, 2018. This facility does not utilize circulation tanks for well stimulation treatments, centrifugal natural gas compressors, natural gas powered pneumatic devices or pumps, natural gas only wells, or well casing vents, and is therefore not subject to the CARB regulation standards and requirements for these equipment and processes. The reciprocating natural gas compressors at this facility satisfy the requirements of the CARB regulation through the implementation of leak detection and repair (LDAR) on the rod packing/seals pursuant to District Rule 331.

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 the South Cuyama Unit.
- 3.4.2 Rules Requiring Further Discussion: During the last three years onsite inspections of this facility have taken place on a routine basis. This section provides a detailed discussion regarding the applicability of and compliance with certain rules.

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 10.5. An Authority to Construct is required to return any de-permitted equipment to service and may be subject to New Source Review.

Rule 210 (*Fees*): Pursuant to Rule 201.G, District permits are reevaluated every three years. This includes the re-issuance of the underlying permit to operate. Also included are the PTO fees. The fees for this facility are based the District Rule 210, Fee Schedule A. This rule is not federally-enforceable. Attachment 10.5 presents the fee calculations for the reevaluated permit.

Rule 301 (*Circumvention*): This rule prohibits the concealment of any activity that would otherwise constitute a violation of Division 26 (Air Resources) of the California H&SC and 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 Ringelmann 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 Ringelmann Chart. Sources subject to this rule include: the flare and all diesel-fired piston internal combustion engines at the facility. Improperly maintained diesel engines have the potential to violate this rule. Compliance will be assured by requiring all engines to be maintained according to manufacturer maintenance schedules and by requiring visible emissions inspections of the flare and diesel engines.

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

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

Rule 309 (*Specific Contaminants*): Under Section "A", no source may discharge sulfur compounds and combustion contaminants in excess of 0.2-percent as SO₂ (by volume) and particulate matter in excess of 0.3 gr/scf (at 12% CO₂) respectively. Sulfur emissions due to the combustion of gas with sulfur content less than 796 ppmv as S will comply with the SO₂ limit.

Rule 310 (*Odorous Organic Compounds*): This rule prohibits the discharge of H₂S 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 the South Cuyama Unit to 0.5% (by wt.) for liquid fuels and 50 gr/100 scf (calculated as H₂S) {or 796 ppmvd} for gaseous fuels. Sulfur content (calculated as H₂S) of the natural gas used as fuel by E&B usually contains no more than 4 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 316 (*Storage and Transfer of Gasoline*): The motor vehicle fueling facility is subject to the requirements of Rule 316 which requires CARB-certified Phase I and Phase II vapor recovery system.

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 the South Cuyama Unit 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 solvent usage records (along with the solvent's MSDS) and submit them annually to the District.

Rule 321 (*Solvent Cleaning Operations*): This rule was revised to fulfill the commitment in the Clean Air Plan 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 322 (*Metal Surface Coating Thinner and Reducer*): This rule prohibits the use of photochemically reactive solvents for use as thinners or reducers in metal surface coatings. E&B is required to maintain records to ensure compliance with this rule.

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

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

Rule 325 (*Crude Oil Production and Separation*): This rule applies to equipment used in the production, gathering, storage, processing and separation of crude oil and gas prior to custody transfer. The primary requirements of this rule are under Sections D and E. Section D requires the use of vapor recovery systems on all tanks and vessels, including produced water tanks, oil/water separators and sumps. Section E requires that all produced gas be controlled at all times, except for wells undergoing routine maintenance. Most of the tanks at the tank farms and produced water treatment plants are subject to Section D.1 and all equipment is subject to the produced gas requirements of Section E.1. The rule requires all subject storage tanks to be connected to a vapor collection system and all produced gas to be taken off-site, sold, flared or recovered by a system with a control efficiency of 90-percent, at a minimum. Tanks that are not subject to the Rule 325 Section D.1 include tanks that are not in service as indicated in Section 9.C and four tanks exempt pursuant to the vapor pressure exemption.

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 a 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 Hallador's *Fugitive Emissions I&M Plan* on January 21, 1993 and has approved subsequent updates.

Rule 342 (Boilers, Steam Generators, and Process Heaters (5 MMBtu/hr and greater)): This rule applies to any boiler, steam generator, and process heater with a rated heat input capacity of greater than or equal to 5.000 million British thermal units. There are no small boilers, steam generators, or process heaters in this size range included in this permit.

Rule 343 (Petroleum Storage Tank Degassing): This rule applies to the degassing of any above-ground tank, reservoir or other container of more than 40,000 gallons capacity containing any organic liquid with a vapor pressure greater than 2.6 psia or between 20,000 gallons and 40,000 gallons capacity containing any organic liquid with a vapor pressure greater than 3.9 psia. The stock storage tanks are subject to the provisions of this Rule. E&B's compliance plan, required under G, was submitted September 12, 1994, updated September 7, 1995 and approved by the District on September 20, 1995. Consequently, E&B is in compliance with this rule.

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

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 360 (Boilers, Water Heaters, and Process Heaters (0.075-2 MMBtu/hr)): 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 new units at this facility that are subject to this rule.

Rule 361 (Boilers, Steam Generators, and Process Heaters (Between 2-5 MMBtu/hr)): 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 units per hour and less than 5 million British thermal units per hour. There are no small boilers, steam generators, or process heaters in this size range included in this permit.

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

- 3.5.1 Facility Inspections: Since the previous permit renewal, one District inspection of this facility was conducted on November 21, 2022. The inspection report indicates that one Notice of Violation was issued during the inspection. Details of this enforcement action are listed below.
- 3.5.2 Enforcement Actions: One enforcement action was issued to this facility since issuance of the previous permit renewal. Details are listed below.

Notice of Violation	Date Issued	Description
NOV 13225	12/14/2022	Exceeding the number of fugitive emission leaks allowed in Rule 331. This violation has been resolved.

- 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
<u>RULE 101</u> : Compliance by Existing Installations	All emission units	Emission of pollutants	June 21, 2012
<u>RULE 102</u> : Definitions	All emission units	Emission of pollutants	August 25, 2016
<u>RULE 103</u> : Severability	All emission units	Emission of pollutants	October 23, 1978
<u>RULE 201</u> : Permits Required	All emission units	Emission of pollutants	June 21, 2012
<u>RULE 202</u> : 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
<u>RULE 203</u> : Transfer	All emission units	Change of ownership	April 17, 1997
<u>RULE 204</u> : Applications	All emission units	Addition of new equipment of modification to existing equipment.	August 25, 2016
<u>RULE 205</u> : Standards for Granting Permits	All emission units	Emission of pollutants	April 17, 1997
<u>RULE 206</u> : Conditional Approval of Authority to Construct or Permit to Operate	All emission units	Applicability of relevant Rules	October 15, 1991
<u>RULE 207</u> : Denial of Applications	All emission units	Applicability of relevant Rules	October 23, 1978
<u>RULE 208</u> : 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
<u>RULE 212</u> : Emission Statements	All emission units	Administrative	October 20, 1992
<u>RULE 301</u> : Circumvention	All emission units	Any pollutant emission	October 23, 1978
<u>RULE 302</u> : Visible Emissions	All emission units	Particulate matter emissions	June 1981
<u>RULE 303</u> : Nuisance	All emission units	Emissions that can injure, damage or offend.	October 23, 1978
<u>RULE 304</u> : Particulate Matter – Northern Zone	Each PM Source	Emissions of PM in effluent gas	October 23, 1978
<u>RULE 309</u> : Specific Contaminants	All emission units	Combustion contaminant emission	October 23, 1978
<u>Rule 310</u> : Odorous Organic Sulfides	All emission units	Combustion contaminant emission	October 23, 1978
<u>RULE 311</u> : Sulfur Content of Fuel	All combustion units	Use of fuel containing sulfur	October 23, 1978

Generic Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
<u>RULE 317</u> : Organic Solvents	Emission units using solvents	Solvent used in process operations.	October 23, 1978
<u>RULE 321</u> : Solvent Cleaning Operations	Emission units using solvents.	Solvent used in process operations.	June 21, 2012
<u>RULE 322</u> : Metal Surface Coating Thinner and Reducer	Emission units using solvents.	Solvent used in process operations.	October 23, 1978
<u>RULE 323.1</u> : Architectural Coatings	Paints used in maintenance and surface coating activities.	Application of architectural coatings.	January 1, 2015
<u>RULE 324</u> : Disposal and Evaporation of Solvents	Emission units using solvents.	Solvent used in process operations.	October 23, 1978
<u>RULE 353</u> : Adhesives and Sealants	Emission units using adhesives and solvents.	Adhesives and sealants used in process operations.	June 21, 2012
<u>Rule 360</u> : Emissions of Oxides of Nitrogen From Large Water Heaters and Small Boilers	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
<u>RULE 505.A, B1, D</u> : Breakdown Conditions	All emission units	Breakdowns where permit limits are exceeded or rule requirements are not complied with.	October 23, 1978
<u>RULE 603</u> : Emergency Episode Plans	Stationary sources with PTE greater than 100 tpy	E&B South Cuyama is a major source.	June 15, 1981
<u>RULE 810</u> : Federal Prevention of Significant Deterioration	New or modified emission units	Major modifications	June 20, 2013
<u>REGULATION VIII</u> : New Source Review	All emission units	Addition of new equipment of modification to existing equipment. Applications to generate ERC Certificates.	August 25, 2016
<u>REGULATION XIII (RULES 1301-1305)</u> : 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
<u>RULE 316</u> : Storage and Transfer of Gasoline	Gas Station	Operation of a motor vehicle fueling facility at the facility.	April 17, 1997
<u>RULE 325</u> : Crude Oil Production and Separation	Wash tank, crude storage tanks, produced water tanks	Pre-custody transfer oil service tanks with capacities exceeding exemption limits.	January 18, 2001
<u>RULE 331</u> : Fugitive Emissions Inspection & Maintenance	All components (valves, flanges, seals, compressors and pumps) used to handle oil and gas:	Components emit fugitive ROCs. ID# 6-1	Dec 10, 1991
<u>RULE 342</u> : Boilers, Steam Generators, and Process Heaters (5 MMBtu/hr and greater)	Control heat inputs greater than or equal to 5 million Btu per hour	Process heaters and steam generators.	June 20, 2019
<u>RULE 343</u> : Petroleum Storage Tank Degassing	Wash tank, crude storage tanks, produced tanks	Tanks used in storage of organic liquids with vapor pressure > 2.6 psia.	Dec 14, 1993
<u>RULE 344</u> : Petroleum Wells, Sumps and Cellars	Well cellars, sump, produced pits	217 wells at this facility are equipped with a well cellar. Compliance with this rule provides a 70% reduction in well cellar ROC emissions. This rule also provides exemptions to sumps at this facility.	Nov 10, 1994
<u>Rule 360</u> : Emissions of Oxides of Nitrogen From Large Water Heaters and Small Boilers	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
<u>RULE 361</u> : Small Boilers, Steam Generators, and Process Heaters.	Any boiler, steam generator, and process heater with a rated heat input capacity greater than 2 MMBtu/hr and less than 5 MMBTU/hr.	Any equipment item covered by this rule must comply with the rule emission limits.	June 20, 2019

Table 3.3 - Non-Federally-Enforceable District Rules

Requirement	Affected Emission Units	Basis for Applicability	Adoption Date
<u>RULE 210</u> : Fees	All emission units	Administrative	March 17, 2005
<u>RULE 212</u> : <u>Emission Statements</u>	All emission units	Administrative	October 20, 1992
<u>RULES 501-504</u> : Variance Rules	All emission units	Administrative	October 23, 1978

Requirement	Affected Emission Units	Basis for Applicability	Adoption Date
<u>RULE 505.B2, B3, C, E, F, G:</u> Breakdown Conditions	All emission units	Breakdowns where permit limits are exceeded or rule requirements are not complied with.	October 23, 1978
<u>RULES 506-519:</u> Variance Rules	All emission units	Administrative	October 23, 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

There are no stationary combustion sources at the South Cuyama Unit.

4.3 Fugitive Hydrocarbon Sources

Emissions of reactive organic compounds from piping components (e.g., valves and connections), pumps, compressors and pressure relief devices have been quantified using two calculation methodologies. Emissions of reactive organic compounds from piping components (e.g., valves and connections) installed after November 1990 have been quantified 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 leakpath (clp) count was made consistent with P&P 6100.061. Attachment 10.2 contains emission spreadsheets showing the detailed calculations for equipment installations for which this methodology was utilized.

Emissions of reactive organic compounds from piping components (e.g., valves and connections) installed prior to November 1990 have been quantified pursuant to District P&P 6100.060 (*Calculation of Fugitive Hydrocarbon Emissions at Oil and Gas Facilities by the CARB/KVB Method - Modified for Revised ROC Definition*). Attachment 10.2 contains an emission spreadsheet showing the detailed calculations for this calculation methodology.

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.

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 Tanks/Vessels/Sumps/Separators

- 4.4.1 Crude Oil Storage and Oil-Water Separation Tanks: The South Cuyama Unit utilizes thirteen fixed roof tanks ranging in size from 1,000 bbls to 10,000 bbls for separation of oil and water and for crude oil storage. These tanks are connected to vapor recovery. (See Section 4.4.3 below for produced water tanks).

See the equipment list in Section 10 and the emission calculation tables in Section 5 for more details regarding the tanks. Emissions from these tanks are calculated using USEPA AP-42, Chapter 7 - *Liquid Storage Tanks* (5th Edition, 2/96). Attachment 10.2 contains emission spreadsheets showing the detailed calculations for each of these tanks. The TVP of the oil and the throughput of each tank may vary from year to year, but the emission limits in Table 5.1-3 are fixed. However, compliance with the emission limits will be based on the total combined throughputs (barrels of oil per day) across all tank farms, except tanks and tank farms with individual limits as noted in Section 9.C. Notwithstanding the above, individual tank farms must be operated consistent with the design of the vapor recovery system and operate in compliance with Rule 325.

- 4.4.2 Sumps and Pits: Tank farms 6, 7, 10, 16, and 18 and the Machader and Perkins Produced Water Plants each have at least one pit to contain spills or to contain produced water. Fugitive emissions from all of these are uncontrolled. These emissions are estimated based District P&P 6100.060 (*Calculation of Fugitive Hydrocarbon Emissions at Oil and Gas Facilities by the CARB/KVB Method - Modified for the Revised ROC Definition*). Some of the pits are classified as being in secondary and others are classified as being in tertiary production. Attachment 10.2 contains an emission spreadsheet showing the detailed calculations for all of the pits at the facility.
- 4.4.3 Produced Water Tanks: The South Cuyama Unit also has four produced water tanks. Two tanks are located at the Machader Produced Water Treatment Plant and two are at the Perkins Produced Water Treatment Plant. These four tanks are not connected to vapor recovery as E&B has claimed the exemption allowed in Rule 325.B.1.a for tanks processing crude oil having a vapor pressure at the initial tank entry point less than 0.5 psia. Emissions from these tanks are calculated the same as for sumps and are based on District's P&P 6100.060 (*Calculation of Fugitive Hydrocarbon Emissions at Oil and Gas Facilities by the CARB/KVB Method - Modified for the Revised ROC Definition*). Attachment 10.2 contains an emission spreadsheet showing the detailed calculations for all four tanks.

4.5 Other Emission Sources

- 4.5.1 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. Mass balance emission calculations are used assuming all the solvent used evaporates to the atmosphere.
- 4.5.2 Surface Coating: Surface coating operations typically include normal touch-up activities. Entire facility painting programs are also performed. Emissions are determined based on mass balance calculations assuming all solvents evaporate into the atmosphere. Emissions of PM/PM₁₀/PM_{2.5} from paint overspray are not calculated due to the lack of established calculation techniques.
- 4.5.3 Abrasive Blasting: Abrasive blasting with CARB certified sands may be performed as a preparation step prior to surface coating. The engines used to power the compressor may be electric or diesel fired. If diesel fired, permits will be required unless the engine is registered with CARB (E&B uses diesel engine ID# 6404 listed in PTO 8010 or another exempt engine). Particulate matter is emitted during this process. A general emission factor of 0.01 pound PM per pound of abrasive is used (SCAQMD - Permit Processing Manual, 1989) to estimate emissions of PM, PM₁₀ and PM_{2.5} when needed for compliance evaluations. A PM/PM₁₀/PM_{2.5} ratio of 1.0 is assumed.
- 4.5.4 Gas Station: The facility includes a gas station with CARB certified Phase I (VR Executive Order G-70-132-B) and Phase II (VR Executive Order G-70-52-AM) vapor recovery. Emissions occur from working loss at the aboveground tank, vapor displacement during vehicle fueling, breathing loss of the aboveground tank, and vehicle fueling spillage. Gasoline vapors escape the system during tank loading, vehicle fueling and breathing loss. Permitted emissions are calculated based on CARB emission factors. See Attachment 10.2 for the detailed calculation worksheet.

4.6 Vapor Recovery/Control Systems

The vapor recovery system collects ROC emissions from tanks. These vapors are scrubbed and compressed. After compression, the vapors are combined with field gas in the main gas collection system. Overall ROC control efficiency for the system is 95-percent.

4.7 BACT/NSPS/NESHAP/MACT

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

A National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Oil and Natural Gas Production and Natural Gas Transmission and Storage was promulgated on June 17, 1999. As described in Section 3.2.4, this facility qualified for the black oil exemption and is required only to maintain the records specified in permit condition 9.B.15.

4.8 CEMS/Process Monitoring/CAM

- 4.8.1 CEMS: There are no CEMS at this facility.
- 4.8.2 CAM: The South Cuyama Unit 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.

4.9 Source Testing/Sampling

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

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

- Fuel Gas: An existing Southern California Gas Company H₂S gas analyzer is primarily used to monitor the H₂S content of processed field gas combusted in fuel burning equipment. Daily H₂S colorimetric gas detection tube tests are used when the Southern California Gas analyzer is down or registering alarm conditions. An annual total sulfur analysis by ASTM D-1072 or other method approved by the District is required.
- Produced Oil/Produced Water: *Annual* analysis for API gravity, Reid vapor pressure and temperature.

All sampling and analyses are required to be performed according to District approved procedures and methodologies. Typically, the appropriate ASTM methods are acceptable. For liquids with API gravity over 20, ASTM D323 applies for true vapor pressure (TVP) measurement. In this case, the TVP at the maximum expected temperature shall be calculated from the Reid vapor pressure in accordance with API Bulletin 2518, or equivalent Reid/true vapor pressure correlation. The calculated true vapor pressure is based on the maximum expected operating temperature in the initial crude oil storage tank. TVP sampling methods for liquids with an API gravity under 20° require specialized procedures per Rule 325.G.2.b. It is important that all sampling and analysis be traceable by chain of custody procedures.

4.10 Part 70 Engineering Review: Hazardous Air Pollutant Emissions

Hazardous air pollutant emissions from the different categories of emission units at the South Cuyama Unit 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. Finally, 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 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 database.

5.2 **Permitted Emission Limits - Emission Units**

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

- Nitrogen Oxides (NO_x) ³
- Reactive Organic Compounds (ROC)
- Carbon Monoxide (CO)
- Sulfur Oxides (SO_x) ⁴
- Particulate Matter (PM) ⁵
- Particulate Matter smaller than 10 microns (PM₁₀)
- Particulate Matter smaller than 2.5 microns (PM_{2.5})
- Greenhouse Gases (GHG as CO₂e)

Permitted emissions are calculated for both short term (daily) and long term (annual) time periods. Section 4.0 (Engineering Analysis) provides a general discussion of the basic calculation methodologies and emission factors used. The reference documentation for the specific emission calculations, as well as detailed calculation spreadsheets, may be found in Section 4 and Attachments 10.1 and 10.2 respectively. Table 5.1-1 provides the basic operating characteristics. Table 5.1-2 provides the specific emission factors. 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. Emissions from pits, well cellars, and produced water tanks are considered fugitive emissions. 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 emission factors listed in Table 5.4-1 for each emissions unit. Potential HAP emissions, based on the worst-case scenario listed in Section 5.3 above, are shown in Tables 5.4-2 through 5.4-3.

³ Calculated and reported as nitrogen dioxide (NO₂)

⁴ Calculated and reported as sulfur dioxide (SO₂)

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

5.6 Exempt Emission Sources/Part 70 Insignificant Emissions

Equipment/activities exempt pursuant to Rule 202 include maintenance operations involving surface coating. This facility includes the following permit-exempt equipment with emissions: (Re: District Rule 202)

- 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, maintenance operations using paints and coatings contribute to the facility emissions. Table 5.5 lists these exempt emissions units and the expected emissions.

Table 5.1-1
Permit to Operate 7250 - R12
E&B South Cuyama Unit
Equipment Description
Page 1 of 2

Equipment Category	Description	Device ID#	Feed		Parameter	Capacity	Units	Size	Units	Load	Hours Per		
											day	qtr	year
Fugitives	Valves and Fittings	101050	--	--	--	--	--	217 wells	--	1	24	2,190	8,760
	Pumps/Compressors and Wellheads	000738	--	--	--	--	--	217 wells	--	1	24	2,190	8,760
	TF #6: 10,000 bbl Wash Tank FHC	115156	--	--	--	--	--	277 clps	--	1	24	2,190	8,760
	TF #18: 5,000 bbl Wash Tank FHC	391694	--	--	--	--	--	246 clps	--	1	24	2,190	8,760
	Machader Produced Water Tank FHC	393132	--	--	--	--	--	67 clps	--	1	24	2,190	8,760
	Valves (PTO 14751 transferred to SCU)	394812	--	--	--	--	--	71 clps	--	1	24	2,190	8,760
	Connect. (PTO 14751 transferred to SCU)	394812	--	--	--	--	--	349 clps	--	1	24	2,190	8,760
	Valves/Conn. (ATC 15528)	394938	--	--	--	--	--	707 clps	--	1	24	2,190	8,760
Tanks					TVP								
	TF #6: 1,500 bbl Wash Tank w/VRS	105087	O/W	2.64		1,970 bopd		1,500 Barrels		1	24	2,190	8,760
	TF #6: 1,250 bbl Wash Tank w/VRS	105964	O/W	2.64		1,970 bopd		1,250 Barrels		1	24	2,190	8,760
	TF #6: 5,000 bbl Wash Tank w/VRS	109943	O/W	2.64		1,970 bopd		5,000 Barrels		1	24	2,190	8,760
	TF #6: 10,000 bbl Wash Tank w/VRS	114977	O/W	2.64		1,970 bopd		10,000 Barrels		1	24	2,190	8,760
	TF #6: LACT Tank w/VRS	000596	O/W	10.00		1,970 bopd		1,000 Barrels		1	24	2,190	8,760
	TF #6: LACT Tank w/VRS	000763	O/W	10.00		1,970 bopd		1,000 Barrels		1	24	2,190	8,760
	Hibbard #7: Stock Tank w/VRS	000617	O/W	2.64		200 bopd		1,000 Barrels		1	24	2,190	8,760
	Hibbard #7: Stock Tank w/VRS	000766	O/W	2.64		200 bopd		1,000 Barrels		1	24	2,190	8,760
	TF #10: Crude Oil Slop Tank	008302	O/W	2.64		300 bopd		2,000 Barrels		1	24	2,190	8,760
	TF #18: Test Tank w/VRS	000612	O/W	2.64		500 bopd		1,000 Barrels		1	24	2,190	8,760
	TF #18: 1,500 bbl Wash Tank w/VRS	113667	O/W	2.64		588 bopd		1,500 Barrels		1	24	2,190	8,760
	TF #18: Crude Tank w/VRS	112293	O/W	2.64		588 bopd		1,000 Barrels		1	24	2,190	8,760
	TF #18 Wash Tank	391693	O/W	3.00		588 bopd		5,000 Barrels		1	24	2,190	8,761

Table 5.1-1
Permit to Operate 7250 - R12
E&B South Cuyama Unit
Equipment Description
Page 2 of 2

Equipment Category	Description	Device ID#	Feed	Parameter	Capacity	Units	Size	Units	Load	day	Hours Per qtr	year
Service												
Pits, Well Cellars, Wastewater Tanks												
	TF #6: Wastewater Pit	000745	O/W	tertiary	--	--	126 sq. feet		1	24	2,190	8,760
	TF #6: Wastewater Pits	000860	O/W	secondary	--	--	18 sq. feet		1	24	2,190	8,760
	TF #7: Pits (Hibbard)	000861	O/W	secondary	--	--	18 sq. feet		1	24	2,190	8,760
	TF #7: Pit (Hibbard)	000746	O/W	tertiary	--	--	90 sq. feet		1	24	2,190	8,760
	TF #10: Pit	000748	O/W	tertiary	--	--	99 sq. feet		1	24	2,190	8,760
	TF #10: Wastewater Pits	000863	O/W	secondary	--	--	18 sq. feet		1	24	2,190	8,760
	TF #18: Wastewater Pits	000872	O/W	secondary	--	--	18 sq. feet		1	24	2,190	8,760
	TF #18: Pit	000756	O/W	tertiary	--	--	117 sq. feet		1	24	2,190	8,760
	Machader WWTP: Pit	000878	O/W	tertiary	--	--	150 sq. feet		1	24	2,190	8,760
	Machader WWTP: Pit	000879	O/W	tertiary	--	--	3,000 sq. feet		1	24	2,190	8,760
	Perkins WWTP: Pit	000880	O/W	tertiary	--	--	1,980 sq. feet		1	24	2,190	8,760
	Perkins WWTP: Pit	000881	O/W	tertiary	--	--	4,500 sq. feet		1	24	2,190	8,760
	Perkins WWTP: Pit	000882	O/W	tertiary	--	--	540 sq. feet		1	24	2,190	8,760
	Perkins WWTP: Pit	000883	O/W	tertiary	--	--	1,800 sq. feet		1	24	2,190	8,760
	Well Cellars	000740	O/W	primary	--	--	5,526 sq. feet		1	24	2,190	8,760
	Perkins: Wastewater Tank (East)	113736	O/W	tertiary	--	--	693 sq. feet		1	24	2,190	8,760
	Perkins: Wastewater Tank (West)	000760	O/W	tertiary	--	--	693 sq. feet		1	24	2,190	8,760
	Machader WWTP: Wastewater Tank	386662	O/W	tertiary	--	--	693 sq. feet		1	24	2,190	8,760
	Muchader Produced Water Tank	393131	O/W	tertiary	--	--	693 sq. feet		1	24	2,190	8,760
Gas Station	Gas Station	112769	--	--	36,000 gal/yr		1,500 gallons		1	24	2,190	8,760
Solvents	Solvents	104998	--	--	5,000 gal/year		5,000 gallons		1	24	2,190	8,760

Table 5.1-2
Permit to Operate 7250 - R12
E&B South Cuyama Unit
Emission Factors
Page 1 of 2

Equipment Category	Description	Device ID#	NO _x	ROC	CO	SO _x	PM	PM ₁₀	PM _{2.5}	GHG	Units	References
Fugitives	Valves and Fittings	101050	-		-	-	-	-	-	-		D
	Pumps/Compressors and Wellheads	000738	-		-	-	-	-	-	-		D
	TF #6: 10,000 bbl Wash Tank FHC	115156										
	TF #18: 5,000 bbl Wash Tank FHC	391694										
	Machader Produced Water Tank FHC	393132										
	Valves (PTO 14751 transferred to SCU)	394812										
	Connect. (PTO 14751 transferred to SCU)	394812										
	Valves/Conn. (ATC 15528)	394938										
Tanks												
	TF #6: 1,500 bbl Wash Tank w/VRS	105087										
	TF #6: 1,250 bbl Wash Tank w/VRS	105964										B
	TF #6: 5,000 bbl Wash Tank w/VRS	109943										B
	TF #6: 10,000 bbl Wash Tank w/VRS	114977										B
	TF #6: LACT Tank w/VRS	000596										B
	TF #6: LACT Tank w/VRS	000763										B
	Hibbard #7: Stock Tank w/VRS	000617										B
	Hibbard #7: Stock Tank w/VRS	000766										B
	TF #10: Crude Oil Slop Tank	008302										B
	TF #18: Test Tank w/VRS	000612										B
	TF #18: 1,500 bbl Wash Tank w/VRS	113667										B
	TF #18: Crude Tank w/VRS	112293										B
	TF #18 Wash Tank	391693										

Table 5.1-2
Permit to Operate 7250 - R12
E&B South Cuyama Unit
Emission Factors
Page 2 of 2

Equipment Category	Description	Device ID#	NOx	ROC	CO	SOx	PM	PM10	PM2.5	GHG	Units	References
Pits, Well Cellars, Wastewater Tanks	TF #6: Wastewater Pit	000745	-	0.00870	-	-	-	-	-	-	lb/sq. ft./day	C
	TF #6: Wastewater Pits	000860	-	0.01800	-	-	-	-	-	-	lb/sq. ft./day	C
	TF #7: Pits (Hibbard)	000861	-	0.01800	-	-	-	-	-	-	lb/sq. ft./day	C
	TF #7: Pit (Hibbard)	000746	-	0.00870	-	-	-	-	-	-	lb/sq. ft./day	C
	TF #10: Pit	000748	-	0.00870	-	-	-	-	-	-	lb/sq. ft./day	C
	TF #10: Wastewater Pits	000863	-	0.01800	-	-	-	-	-	-	lb/sq. ft./day	C
	TF #18: Wastewater Pits	000872	-	0.01800	-	-	-	-	-	-	lb/sq. ft./day	C
	TF #18: Pit	000756	-	0.00870	-	-	-	-	-	-	lb/sq. ft./day	C
	Machader WWTP: Pit	000878	-	0.00870	-	-	-	-	-	-	lb/sq. ft./day	C
	Machader WWTP: Pit	000879	-	0.00870	-	-	-	-	-	-	lb/sq. ft./day	C
	Perkins WWTP: Pit	000880	-	0.00870	-	-	-	-	-	-	lb/sq. ft./day	C
	Perkins WWTP: Pit	000881	-	0.00870	-	-	-	-	-	-	lb/sq. ft./day	C
	Perkins WWTP: Pit	000882	-	0.00870	-	-	-	-	-	-	lb/sq. ft./day	C
	Perkins WWTP: Pit	000883	-	0.00870	-	-	-	-	-	-	lb/sq. ft./day	C
	Perkins WWTP: Pit	000882	-	0.04140	-	-	-	-	-	-	lb/sq. ft./day	C
	Perkins WWTP: Pit	000883	-	0.00131	-	-	-	-	-	-	lb/sq. ft./day	C
	Well Cellars	000740	-	0.00131	-	-	-	-	-	-	lb/sq. ft./day	C
	Perkins: Wastewater Tank (East)	113736	-	0.00131	-	-	-	-	-	-	lb/sq. ft./day	C
	Perkins: Wastewater Tank (West)	000760	-	0.00131	-	-	-	-	-	-	lb/sq. ft./day	C
	Machader WWTP: Wastewater Tank	386662	-	0.00131	-	-	-	-	-	-	lb/sq. ft./day	C
	Machader Produced Water Tank	393131	-	0.00131	-	-	-	-	-	-	lb/sq. ft./day	C
Gas Station	Gas Station	112769	-	See Calculation Sheet in Section 10								F
Solvents	Solvents	104998	-	See Calculation Sheet in Section 10								E

**Table 5.1-3
Permit to Operate 7250 - R12
E&B South Cuyama Unit
Hourly and Daily Emissions
Page 1 of 2**

Equipment Category	Emissions Unit	Device ID #	NO _x		ROC		CO		SO _x		PM		PM ₁₀		PM _{2.5}		GHG		Enforceability and Basis
			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	
Fugitives	Valves and Fittings	101050	-	-	7.61	182.65	-	-	-	-	-	-	-	-	-	-	-	-	A
	Pumps/Compressors and Wellheads	000738	-	-	0.15	3.57	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #6: 10,000 bbl Wash Tank FHC	115156	-	-	0.01	0.32	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 13876
	TF #18: 5,000 bbl Wash Tank FHC	391694	-	-	0.05	1.11	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 15098
	Machader Produced Water Tank FHC	393132	-	-	0.03	0.80	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 15217
	Valves (PTO 14751 transferred to SCU)	394812	-	-	0.05	1.30	-	-	-	-	-	-	-	-	-	-	-	-	FE PTO 14751
	Connect. (PTO 14751 transferred to SCU)	394812	-	-	0.06	1.51	-	-	-	-	-	-	-	-	-	-	-	-	FE PTO 14751
	Valves/Conn. (ATC 15528)	394938	-	-	1.42	5.68	-	-	-	-	-	-	-	-	-	-	-	-	
Tanks	TF #6: 1,500 bbl Wash Tank w/VRS	000738	-	-	0.00	0.03	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10849, 10954, 12883
	TF #6: 1,250 bbl Wash Tank w/VRS	115156	-	-	0.00	0.03	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10849, 11558, 12883
	TF #6: 5,000 bbl Wash Tank w/VRS	109943	-	-	0.00	0.10	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10849, 12279, 12883
	TF #6: 10,000 bbl Wash Tank w/VRS	114977	-	-	0.02	0.51	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 13876
	TF #6: LACT Tank w/VRS	105087	-	-	0.20	4.71	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10849, 10954, 12883
	TF #6: LACT Tank w/VRS	105964	-	-	0.20	4.71	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10849, 10954, 12883
	Hibbard #7: Stock Tank w/VRS	109943	-	-	0.03	0.78	-	-	-	-	-	-	-	-	-	-	-	-	A
	Hibbard #7: Stock Tank w/VRS	114977	-	-	0.03	0.78	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #10: Crude Oil Slop Tank	000596	-	-	0.06	1.45	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 9592
	TF #18: Test Tank w/VRS	000617	-	-	0.04	0.99	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 12925
	TF #18: 1,500 bbl Wash Tank w/VRS	113667	-	-	0.04	0.06	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 13567
	TF #18: Crude Tank w/VRS	112293	-	-	0.04	1.07	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 12925
	TF #18 Wash Tank	391693			0.05	0.06	-	-	-	-	-	-	-	-	-	-	-	-	

Table 5.1-3
Permit to Operate 7250 - R12
E&B South Cuyama Unit
Hourly and Daily Emissions
Page 2 of 2

Equipment Category	Emissions Unit	Device ID #	NOx		ROC		CO		SOx		PM		PM10		PM2.5		GHG		Enforceability and its basis
			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	
Pits, Well Cellars, Wastewater Tanks	TF #6: Wastewater Pit	000745	-	-	0.0457	1.10	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #6: Wastewater Pits	000860	-	-	0.0135	0.32	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #7: Pits (Hibbard)	000861	-	-	0.0135	0.32	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #7: Pit (Hibbard)	000746	-	-	0.0326	0.78	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #10: Pit	000748	-	-	0.0359	0.86	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #10: Wastewater Pits	000863	-	-	0.0135	0.32	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #17: Pit	000755	-	-	0.0392	0.94	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #18: Wastewater Pits	000872	-	-	0.0135	0.32	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #18: Pit	000756	-	-	0.0424	1.02	-	-	-	-	-	-	-	-	-	-	-	-	A
	Machader WWTP: Pit	000878	-	-	0.0544	1.31	-	-	-	-	-	-	-	-	-	-	-	-	A
	Machader WWTP: Pit	000879	-	-	1.0875	26.10	-	-	-	-	-	-	-	-	-	-	-	-	A
	Perkins WWTP: Pit	000880	-	-	0.7178	17.23	-	-	-	-	-	-	-	-	-	-	-	-	A
	Perkins WWTP: Pit	000881	-	-	1.6313	39.15	-	-	-	-	-	-	-	-	-	-	-	-	A
	Perkins WWTP: Pit	000882	-	-	0.1958	4.70	-	-	-	-	-	-	-	-	-	-	-	-	A
	Perkins WWTP: Pit	000883	-	-	0.6525	15.66	-	-	-	-	-	-	-	-	-	-	-	-	A
	Well Cellars	000740	-	-	9.5324	228.78	-	-	-	-	-	-	-	-	-	-	-	-	A
	Perkins: Wastewater Tank (East)	113736	-	-	0.0378	0.91	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 13605
	Perkins: Wastewater Tank (West)	000760	-	-	0.0378	0.91	-	-	-	-	-	-	-	-	-	-	-	-	A
	Machader WWTP: Wastewater Tank	386662	-	-	0.0378	0.91	-	-	-	-	-	-	-	-	-	-	-	-	A ATC 14185
	Muchader Produced Water Tank	393131	-	-	0.0378	0.91	-	-	-	-	-	-	-	-	-	-	-	-	A
Gas Station	Gas Station	112769	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 11136, 13306
Solvents	Solvents	104998	-	-	0.23	5.57	-	-	-	-	-	-	-	-	-	-	-	-	A

**Table 5.1-4
Permit to Operate 7250 - R12
E&B South Cuyama Unit
Quarterly and Annual Emissions
Page 1 of 2**

Equipment Category	Emissions Unit	Device ID #	NO _x		ROC		CO		SO _x		PM		PM ₁₀		PM _{2.5}		GHG		Fed. Enforceability and Basis
			TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	
Fugitives	Valves and Fittings	101050	-	-	8.33	33.33	-	-	-	-	-	-	-	-	-	-	-	-	A
	Pumps/Compressors and Wellheads	000738	-	-	0.16	0.65	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #6: 10,000 bbl Wash Tank FHC	115156	-	-	0.01	0.06	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 13876
	TF #18: 5,000 bbl Wash Tank FHC	391694	-	-	0.05	0.20	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 15098
	Machader Produced Water Tank FHC	393132	-	-	0.04	0.15	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 15217
	Valves (PTO 14751 transferred to SCU)	394812	-	-	0.06	0.24	-	-	-	-	-	-	-	-	-	-	-	-	FE PTO 14751
	Connect. (PTO 14751 transferred to SCU)	394812	-	-	0.07	0.28	-	-	-	-	-	-	-	-	-	-	-	-	FE PTO 14751
	Valves/Conn. (ATC 15528)	394938	-	-	0.26	1.04	-	-	-	-	-	-	-	-	-	-	-	-	
Tanks	TF #6: 1,500 bbl Wash Tank w/VRS	105087	-	-	0.00	0.01	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10849, 10954, 12883
	TF #6: 1,250 bbl Wash Tank w/VRS	105964	-	-	0.00	0.01	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10849, 11558, 12883
	TF #6: 5,000 bbl Wash Tank w/VRS	109943	-	-	0.01	0.02	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10849, 12279, 12883
	TF #6: 10,000 bbl Wash Tank w/VRS	114977	-	-	0.02	0.09	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 13876
	TF #6: LACT Tank w/VRS	000596	-	-	0.22	0.86	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10849, 10954, 12883
	TF #6: LACT Tank w/VRS	000763	-	-	0.22	0.86	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 10849, 10954, 12883
	Hibbard #7: Stock Tank w/VRS	000617	-	-	0.04	0.14	-	-	-	-	-	-	-	-	-	-	-	-	A
	Hibbard #7: Stock Tank w/VRS	000766	-	-	0.04	0.14	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #10: Crude Oil Slop Tank	008302	-	-	0.07	0.26	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 9592
	TF #18: Test Tank w/VRS	000612	-	-	0.05	0.18	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 12925
	TF #18: 1,500 bbl Wash Tank w/VRS	113667	-	-	0.00	0.01	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 13567
	TF #18: Crude Tank w/VRS	112293	-	-	0.05	0.19	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 12925
	TF #18 Wash Tank	391693	-	-	0.00	0.01	-	-	-	-	-	-	-	-	-	-	-	-	

Table 5.1-4
Permit to Operate 7250 - R12
E&B South Cuyama Unit
Quarterly and Annual Emissions
Page 2 of 2

Equipment Category	Emissions Unit	Device ID #	NOx		ROC		CO		SOx		PM		PM10		PM2.5		GHG		Fed. Enforceability and its basis
			TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	
Pits, Well Cellars, Wastewater Tanks	TF #6: Wastewater Pit	000745	-	-	0.05	0.20	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #6: Wastewater Pits	000860	-	-	0.01	0.06	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #7: Pits (Hibbard)	000861	-	-	0.01	0.06	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #7: Pit (Hibbard)	000746	-	-	0.04	0.14	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #10: Pit	000748	-	-	0.04	0.16	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #10: Wastewater Pits	000863	-	-	0.01	0.06	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #18: Wastewater Pits	000872	-	-	0.01	0.06	-	-	-	-	-	-	-	-	-	-	-	-	A
	TF #18: Pit	000756	-	-	0.05	0.19	-	-	-	-	-	-	-	-	-	-	-	-	A
	Machader WWTP: Pit	000878	-	-	0.06	0.24	-	-	-	-	-	-	-	-	-	-	-	-	A
	Machader WWTP: Pit	000879	-	-	1.19	4.76	-	-	-	-	-	-	-	-	-	-	-	-	A
	Perkins WWTP: Pit	000880	-	-	0.79	3.14	-	-	-	-	-	-	-	-	-	-	-	-	A
	Perkins WWTP: Pit	000881	-	-	1.79	7.14	-	-	-	-	-	-	-	-	-	-	-	-	A
	Perkins WWTP: Pit	000882	-	-	0.21	0.86	-	-	-	-	-	-	-	-	-	-	-	-	A
	Perkins WWTP: Pit	000883	-	-	0.71	2.86	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 13605
	Well Cellars	000740	-	-	10.44	41.75	-	-	-	-	-	-	-	-	-	-	-	-	A
	Perkins: Wastewater Tank (East)	113736	-	-	0.04	0.17	-	-	-	-	-	-	-	-	-	-	-	-	A ATC 14185
	Perkins: Wastewater Tank (West)	000760	-	-	0.04	0.17	-	-	-	-	-	-	-	-	-	-	-	-	A
	Machader WWTP: Wastewater Tank	386662			0.04	0.17	-	-	-	-	-	-	-	-	-	-	-	-	A
	Muchader Produced Water Tank	393131			0.04	0.17	-	-	-	-	-	-	-	-	-	-	-	-	A
Gas Station	Gas Station	112769	-	-	N/A	0.03	-	-	-	-	-	-	-	-	-	-	-	-	FE ATC 11136, 13306
Solvents	Solvents	104998	-	-	0.26	1.02	-	-	-	-	-	-	-	-	-	-	-	-	A

Table 5.2
Permit to Operate 7250 - R12
E&B South Cuyama Unit
Total Permitted Emissions

A. Hourly (lb/hr)

Equipment Category	NO_x	ROC	CO	SO_x	PM	PM₁₀	PM_{2.5}	GHG
Fugitives	-	9.38	-	-	-	-	-	-
Tanks	-	0.70	-	-	-	-	-	-
Pits, Well Cellars, Wastewater Tanks	-	14.23	-	-	-	-	-	-
Gas Station	-	-	-	-	-	-	-	-
Solvents	-	0.23	-	-	-	-	-	-
Totals	0.00	24.54	0.00	0.00	0.00	0.00	0.00	0.00

B. Daily (lb/day)

Equipment Category	NO_x	ROC	CO	SO_x	PM	PM₁₀	PM_{2.5}	GHG
Fugitives	-	196.94	-	-	-	-	-	-
Tanks	-	15.28	-	-	-	-	-	-
Pits, Well Cellars, Wastewater Tanks	-	341.60	-	-	-	-	-	-
Gas Station	-	0.18	-	-	-	-	-	-
Solvents	-	5.57	-	-	-	-	-	-
Totals	0.00	559.56	0.00	0.00	0.00	0.00	0.00	0.00

C. Quarterly (Tons/Qtr)

Equipment Category	NO_x	ROC	CO	SO_x	PM	PM₁₀	PM_{2.5}	GHG
Fugitives	-	8.99	-	-	-	-	-	-
Tanks	-	0.70	-	-	-	-	-	-
Pits, Well Cellars, Wastewater Tanks	-	15.59	-	-	-	-	-	-
Gas Station	-	0.01	-	-	-	-	-	-
Solvents	-	0.26	-	-	-	-	-	-
Totals	0.00	25.53	0.00	0.00	0.00	0.00	0.00	0.00

D. Annual (Ton/yr)

Equipment Category	NO_x	ROC	CO	SO_x	PM	PM₁₀	PM_{2.5}	GHG
Fugitives	-	35.95	-	-	-	-	-	-
Tanks	-	2.78	-	-	-	-	-	-
Pits, Well Cellars, Wastewater Tanks	-	62.34	-	-	-	-	-	-
Gas Station	-	0.03	-	-	-	-	-	-
Solvents	-	1.02	-	-	-	-	-	-
Totals	0.00	102.12	0.00	0.00	0.00	0.00	0.00	0.00

Table 5.3
Part 70 / Permit to Operate 7250 - R12
E&B South Cuyama Unit
Federal Potential to Emit

Federal PTE - Hourly (lbs/hr)								
Equipment Category	NO_x	ROC	CO	SO_x	PM	PM₁₀	PM_{2.5}	GHG
Fugitives	-	0.01	-	-	-	-	-	-
Tanks	-	0.70	-	-	-	-	-	-
Gas Station	-	-	-	-	-	-	-	-
Solvents	-	0.23	-	-	-	-	-	-
Insignificant Emissions	-	0.06	0.00	0.00	0.01	0.01	0.01	-
Totals	0.00	1.00	0.00	0.00	0.01	0.01	0.01	0.0

Federal PTE - Daily (lbs/day)								
Equipment Category	NO_x	ROC	CO	SO_x	PM	PM₁₀	PM_{2.5}	GHG
Fugitives	-	0.32	-	-	-	-	-	-
Tanks	-	15.28	-	-	-	-	-	-
Gas Station	-	0.18	-	-	-	-	-	-
Solvents	-	5.57	-	-	-	-	-	-
Insignificant Emissions	-	1.53	-	-	0.27	0.27	0.27	-
Totals	0.00	22.87	0.00	0.00	0.27	0.27	0.27	0.0

Federal PTE - Annual (Ton/yr)								
Equipment Category	NO_x	ROC	CO	SO_x	PM	PM₁₀	PM_{2.5}	GHG
Fugitives	-	0.06	-	-	-	-	-	-
Tanks	-	2.78	-	-	-	-	-	-
Gas Station	-	0.03	-	-	-	-	-	-
Solvents	-	1.02	-	-	-	-	-	-
Insignificant Emissions	-	0.28	0.00	0.00	0.05	0.05	0.05	-
Totals	0.00	4.17	0.00	0.00	0.05	0.05	0.05	0.0

Table 5.4-1
Permit to Operate 7250 - R12
E&B South Cuyama Unit
HAP Emission Factors
Page 1 of 2

Equipment Category	Description	Device ID#	Units	Acetaldehyde	Acetone	Aromatic	Benzene	Beryllium	Biphenyl	1,3-Butadiene	Cadmium	Carbon tetrachloride	Chlorobenzene	Chloroform	Chromium (total)	1,2-Dichloropropane	Ethyl benzene	Ethylmethoxybenzene	Formaldehyde	HCl	Hexane	Lead	Manganese	Mercury	Methanol	Methylamine Chloride	Naphthalene	Nickel	PbAs	Selenium	Styrene	1,1,2,2-Tetrachloroethane	1,1,2,2-Trichloroethane	Toluene	Vinyl Chloride	Xylene	References
Fugitives	Valves and Fittings	101050	lb/yr-ROC				1.79E-03														1.77E-01																A
	Pumps/Compressors and Wellheads	000738	lb/yr-ROC				1.79E-03														1.77E-01																A
	TF #6: 10,000 bbl Wash Tank FHC	110156	lb/yr-ROC				1.79E-03														1.77E-01																A
	TF #18: 5,000 bbl Wash Tank FHC	391094	lb/yr-ROC				1.79E-03														1.77E-01																A
	Machader Produced Water Tank FHC	393132	lb/yr-ROC				1.79E-03														1.77E-01																A
	Valves (PTO 14751 transferred to SCU)	394812	lb/yr-ROC				3.25E-03														1.69E-01																F
	Connections (PTO 14751 transferred to SCU)	394812	lb/yr-ROC				3.25E-03														1.69E-01																F
	Valves/Conn. (ATC 15528)	394938	lb/yr-ROC				3.25E-03														1.69E-01																F
Tanks	TF #6: 1,000 bbl Wash Tank w/VRS	101087	lb/yr-ROC				2.71E-02														5.76E-02																B
	TF #6: 1,250 bbl Wash Tank w/VRS	101964	lb/yr-ROC				2.71E-02														5.76E-02																B
	TF #6: 5,000 bbl Wash Tank w/VRS	109343	lb/yr-ROC				2.71E-02														5.76E-02																B
	TF #6: 10,000 bbl Wash Tank w/VRS	114977	lb/yr-ROC				2.71E-02														5.76E-02																B
	TF #6: LACT Tank w/VRS	000596	lb/yr-ROC				2.71E-02														5.76E-02																B
	TF #6: LACT Tank w/VRS	000763	lb/yr-ROC				2.71E-02														5.76E-02																B
	Hibbard #7: Stock Tank w/VRS	000617	lb/yr-ROC				2.71E-02														5.76E-02																B
	Hibbard #7: Stock Tank w/VRS	000766	lb/yr-ROC				2.71E-02														5.76E-02																B
	TF #10: Crude Oil Strip Tank w/VRS	000302	lb/yr-ROC				2.71E-02														5.76E-02																B
	TF #18: Test Tank w/VRS	000612	lb/yr-ROC				2.71E-02														5.76E-02																B
	TF #18: 5,000 bbl Wash Tank w/VRS	113667	lb/yr-ROC				2.71E-02														5.76E-02																B
	TF #18: Crude Tank w/VRS	112293	lb/yr-ROC				2.71E-02														5.76E-02																B
	TF #18 Wash Tank w/VRS	391693	lb/yr-ROC				2.71E-02														5.76E-02																B

Table 5.4-1
Permit to Operate 7250 - R12
E&B South Cuyama Unit
HAP Emission Factors
Page 2 of 2

Equipment Category	Description	Device ID#	Units	Acetaldehyde	Acetone	Aromatic	Benzene	Beryllium	Biphenyl	1,3-Butadiene	Cadmium	Carbon tetrachloride	Chlorobenzene	Chloroform	Chromium (total)	1,2-Dichloropropane	Ethyl benzene	Ethylmethoxybenzene	Formaldehyde	HCl	Hexane	Lead	Manganese	Mercury	Methanol	Methylamine Chloride	Naphthalene	Nickel	PbAs	Selenium	Styrene	1,1,2,2-Tetrachloroethane	1,1,2,2-Trichloroethane	Toluene	Vinyl Chloride	Xylene	References
Pits, Well Cellars, Produced Water Tanks	TF #6: Produced Water Pit	000745	lb/yr-ROC				2.64E-02														5.78E-02																E
	TF #6: Produced Water Pits	000960	lb/yr-ROC				2.64E-02														5.78E-02																E
	TF #7: Pit (Hibbard)	000961	lb/yr-ROC				2.64E-02														5.78E-02																E
	TF #7: Pit (Hibbard)	000746	lb/yr-ROC				2.64E-02														5.78E-02																E
	TF #10: Pit	000748	lb/yr-ROC				2.64E-02														5.78E-02																E
	TF #10: Produced Water Pits	000963	lb/yr-ROC				2.64E-02														5.78E-02																E
	TF #18: Produced Water Pits	000972	lb/yr-ROC				2.64E-02														5.78E-02																E
	TF #18: Pit	000756	lb/yr-ROC				2.64E-02														5.78E-02																E
	Machader PWTP: Pit	000878	lb/yr-ROC				2.64E-02														5.78E-02																E
	Machader PWTP: Pit	000879	lb/yr-ROC				2.64E-02														5.78E-02																E
	Perkins PWTP: Pit	000890	lb/yr-ROC				2.64E-02														5.78E-02																E
	Perkins PWTP: Pit	000891	lb/yr-ROC				2.64E-02														5.78E-02																E
	Perkins PWTP: Pit	000892	lb/yr-ROC				2.64E-02														5.78E-02																E
	Perkins PWTP: Pit	000893	lb/yr-ROC				2.64E-02														5.78E-02																E
	Well Cellars	000740	lb/yr-ROC				2.64E-02														5.78E-02																E
	Perkins: Produced Water Tank (East)	113736	lb/yr-ROC				2.64E-02														5.78E-02																E
	Perkins: Produced Water Tank (West)	000760	lb/yr-ROC				2.64E-02														5.78E-02																E
	Machader Produced Water Tank	396662	lb/yr-ROC				2.64E-02														5.78E-02																E
	Machader Produced Water Tank	393131	lb/yr-ROC				2.64E-02														5.78E-02																E
Gas Station	Gas Station	112769	lb/yr-ROC				1.00E-02										1.60E-02																				F
Solvents	Solvents	104998	lb/yr-ROC				5.00E-02																														G

References:
A. CARB Speciation Manual Second Edition (1991) Profile Number 756 - Oil & Gas Production Fugitives - Liquid Service
B. CARB Speciation Manual Second Edition (1991) Profile Number 297 - Crude Oil Evaporation - Vapor Composite from Fixed Roof Tanks
C. CARB Speciation Manual Second Edition (1991) Profile Number 532 - Oil & Gas Extraction - Well Heads & Cellars/Oil & Water Separators
D. CAPCOA Gasoline Service Station Industrywide Risk Assessment Guidelines - Content of Reformulated Gasoline (11/97)
E. APCD: Solvents assumed to contain 5% benzene, 5% toluene, 5% xylene
F. CARB Speciation Manual Second Edition (1991) Profile Number 757 - Oil & Gas Production Fugitives - Gas Service

Table 5.4-2
Permit to Operate 7250 - R12
E&B South Cuyama Unit
HAP Emissions (tpy) ¹
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Equipment Category	Description	Device ID#	Acetaldehyde	Acrolein	Arsenic	Benzene	Beryllium	Biphenyl	1,3-Butadiene	Cadmium	Carbon tetrachloride	Chlorobenzene	Chloroform	Chromium (total)	1,3-dichloropropene	Ethyl benzene	Ethylenebromide	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	
Fugitives	Valves and Fittings	101050	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.95	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	
	Pumps/Compressors and Wellheads	000738	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	0.11	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	
	TF #6: 10,000 bbl Wash Tank FHC	115156	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	0.01	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	
	TF #18: 5,000 bbl Wash Tank FHC	391694	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	0.04	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	
	Machader Produced Water Tank FHC	393132	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	0.03	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	
	Valves (PTO 14751 transferred to SCU)	394812	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	0.04	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	
	Connections (PTO 14751 transferred to SCU)	394812	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	0.05	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	
	Valves/Conn. (ATC 15528)	394938	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	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	
Tanks	TF #6: 1,500 bbl Wash Tank w/VRS	105087	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	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	
	TF #6: 1,250 bbl Wash Tank w/VRS	105964	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	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	
	TF #6: 5,000 bbl Wash Tank w/VRS	109943	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	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	
	TF #6: 10,000 bbl Wash Tank w/VRS	114977	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	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	
	TF #6: LACT Tank w/VRS	000596	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	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	
	TF #6: LACT Tank w/VRS	000763	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	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	
	Hibberd #7: Stock Tank w/VRS	000617	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	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	
	Hibberd #7: Stock Tank w/VRS	000766	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	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	
	TF #10: Crude Oil Slop Tank w/VRS	008302	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	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	
	TF #18: Test Tank w/VRS	000612	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	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	
	TF #18: 1,500 bbl Wash Tank w/VRS	113667	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	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	
	TF #18: Crude Tank w/VRS	112293	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	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	
	TF #18 Wash Tank w/VRS	391693	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	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	
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.																																				

Table 5.4-2
Permit to Operate 7250 - R12
E&B South Cuyama Unit
HAP Emissions (tpy) ¹
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Equipment Category	Description	Device ID#	HAPs																																
			Acetaldehyde	Acrolein	Arsenic	Benzene	Beryllium	Biphenyl	1,3-Butadiene	Cadmium	Carbon tetrachloride	Chlorobenzene	Chloroform	Chromium (total)	1,2-dichloropropane	Ethylbenzene	Ethylenebromide	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
Pits, Well Cellars, Produced Water Tanks	TF #6: Produced Water Pit	000745	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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
	TF #6: Produced Water Pits	000860	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	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
	TF #7: Pits (Hibberd)	000861	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	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
	TF #7: Pit (Hibberd)	000746	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	0.01	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
	TF #10: Pit	000748	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	0.01	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
	TF #10: Produced Water Pits	000863	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	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
	TF #18: Produced Water Pits	000872	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	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
	TF #18: Pit	000756	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	0.01	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
	Machader PWTP: Pit	000878	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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
	Machader PWTP: Pit	000879	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	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	0.08	0.00	0.00	0.00
	Perkins PWTP: Pit	000880	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	0.00	0.00	0.18	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	0.05	0.00	0.00	0.00
	Perkins PWTP: Pit	000881	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00
	Perkins PWTP: Pit	000882	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
	Perkins PWTP: Pit	000883	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	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
	Well Cellars	000740	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0.00	0.00	0.00	0.00
	Perkins: Produced Water Tank (East)	113736	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	0.01	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
	Perkins: Produced Water Tank (West)	000760	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	0.01	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
	Machader Produced Water Tank	396662	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	0.01	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
	Machader Produced Water Tank	393131	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	0.01	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
Gas Station	Gas Station	112769	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	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
Solvents	Solvents	104998	0.00	0.00	0.00	0.05	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
	Sub Total HAPS (tpy)		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	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	0.00	1.08	0.00	0.00	0.00
	Total HAPs (tpy)	12.68																																	
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.																																			

Table 5.4-3
Permit to Operate 7250 - R12
E&B South Cuyama Unit
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-dichloropropane	Ethyl benzene	Ethylene dibromide	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	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	0.00	0.00	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	0.05	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	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	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	0.00	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	0.05	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.

Table 5.5
Part 70 / Permit to Operate 7250 - R12
E&B South Cuyama Unit
APCD Permit Exempt and Part 70 Insignificant Emissions

Estimated Permit Exempt Emissions (lbs/hr)							
Equipment Category	NO _x	ROC	CO	SO _x	PM	PM ₁₀	PM _{2.5}
Particulates from Abrasive Blasting	-	-	-	-	0.01	0.01	0.01
Coatings		0.00					
Solvents	-	0.06	-	-	-	-	
Storage of Solvents/ Lubricating Oils/etc.	-	0.00	-	-	-	-	
Totals	0.00	0.06	0.00	0.00	0.01	0.01	0.01

Estimated Permit Exempt Emissions (lbs/day)							
Equipment Category	NO _x	ROC	CO	SO _x	PM	PM ₁₀	PM _{2.5}
Particulates from Abrasive Blasting		-			0.27	0.27	0.27
Coatings		0.00					
Solvents	-	1.53	-	-	-	-	
Storage of Solvents/ Lubricating Oils/etc.	-	0.00	-	-	-	-	
Totals	0.00	1.53	0.00	0.00	0.27	0.27	0.27

Estimated Permit Exempt Emissions (Tons/Year)							
Equipment Category	NO _x	ROC	CO	SO _x	PM	PM ₁₀	PM _{2.5}
Particulates from Abrasive Blasting	-	-	-	-	0.05	0.05	0.05
Coatings		0.00					
Solvents	-	0.28	-	-	-	-	
Storage of Solvents/ Lubricating Oils/etc.	-	0.00	-	-	-	-	
Totals	0.00	0.28	0.00	0.00	0.05	0.05	0.05

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 hydrocarbons (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, 6,000 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 NO_x 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) below.

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 per year and 200 hours per year of operations each.
- 7.4.3 Decision of Issuance (DOI) 0086 created ROC ERCs for filling in twenty well cellars with soil at the South Cuyama Unit. 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 ----					ERC Source	Notes
						NO _x	ROC	SO _x	PM	PM ₁₀		
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
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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\WPI\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
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Notes

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

\\sbpcapcd.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.

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9.0 Permit Conditions

This section lists the applicable permit conditions for the E&B South Cuyama Unit. 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 the facilities of the South Cuyama Unit:

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. *[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]*
- B.4 **Particulate Matter – Northern Zone (Rule 304):** The permittee 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. *[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 H₂S) 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 **Organic Solvents (Rule 317):** The permittee shall comply with the emission standards listed in Rule 317.B. Compliance with this condition shall be based on the permittee's compliance with Condition 9.C.5 of this permit. *[Re: District Rule 317]*
- B.8 **Solvent Cleaning Operations (Rule 321):** The permittee shall comply with equipment and operational standards for process activities using solvents as stipulated in Rule 321. The permittee has stated that, except for routine maintenance involving wipe cleaning, they do not use solvents at the facility. Compliance with this section shall be based on records pursuant to Condition 9.C.5 of this permit. *[Re: District Rule 321 Sections D-L]*
- B.9 **Metal Surface Coating Thinner and Reducer (Rule 322):** The use of photochemically reactive solvents as thinners or reducers in metal surface coatings is prohibited. Compliance with this condition shall be based on the permittee's compliance with Condition 9.C.5 of this permit and facility inspections. *[Re: District Rule 322]*
- B.10 **Architectural Coatings (Rule 323.1):** E&B shall comply with the rule requirements for any architectural coating that is supplied, sold, offered for sale, or manufactured for use within the District.

- B.11 **Disposal and Evaporation of Solvents (Rule 324):** The permittee shall not dispose through atmospheric evaporation of more than one and a half gallons of any photochemically reactive solvent per day. Compliance with this condition shall be based on the permittee's compliance with Condition 9.C.5 of this permit and facility inspections. [Re: District Rule 324]
- B.12 **Emissions Of Oxides Of Nitrogen From Large Water Heaters And Small Boilers (Rule 360):** The permittee shall comply with the requirements of District Rule 360: *Emissions of Nitrogen From Large Water Heaters And Small Boilers* whenever a new boiler, process heater or other external combustion device is added or an existing unit is replaced.
- B.13 **Emergency Episode Plans (Rule 603):** During emergency episodes, the permittee shall implement the District approved *Emergency Episode Plan*. [Reference District Rule 603]
- B.14 **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.15 **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. [Re: 40 CFR 63, Subpart HH]
- B.16 **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 includes non-generic federally enforceable conditions, incorporating emissions and operations limits, and monitoring, recordkeeping and reporting. This section may also contain other non-generic conditions.

- C.1 **Fugitive Hydrocarbon Emissions Components:** The following equipment are included in this emissions unit category:

Device #	Gas/Light Liquid Service Components
101050 / 394812	Valves and Fittings
000738	Pumps, Compressors and Wellheads
394938	Fugitive Components

- (a) **Emission Limits:** There are no federally-enforceable emission limits associated with the fugitive emissions at the South Cuyama Unit.
- (b) **Operational Limits:** Operation of the equipment listed in this section shall conform to the requirements listed in District Rule 331.D and E. Compliance with these limits shall be assessed through compliance with the monitoring, recordkeeping and reporting conditions in this permit. In addition the permittee shall meet the following requirements:

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

1. The permittee shall implement the most current District-approved E&B *Fugitive Hydrocarbon Inspection and Maintenance Plan*.
 2. *Fugitive I&M Program.* The District-approved Fugitive I&M Plan which includes this lease shall be implemented for the life of the project. An updated Fugitive Emissions Inspection and Maintenance Plan Inventory must be submitted to the District for review and approval within one calendar quarter whenever there is a change in the component list or diagrams.
- (c) **Monitoring:** The equipment listed in this section is subject to all the monitoring requirements listed in District Rule 331.F. The test methods in Rule 331.H shall be used, when applicable.
- (d) **Recordkeeping:** All inspection and repair records shall be retained for a minimum of five years. The equipment listed in this section are subject to all the recordkeeping requirements listed in District Rule 331.G.
- (e) **Reporting:** On an annual basis, a report detailing the previous twelve-month's activities shall be provided to the District in accordance with all data required by the *Semi-Annual Compliance Verification Reports* condition of this permit. (Re: District Rule 331, 40 CFR 70.6.a.3.(iii))

C.2 **Petroleum Storage and Processing Tanks:** The following equipment is included in this emissions category:

Tanks Subject to Federal Requirements					
Device #	Description	Size (bbl)	Device#	Description	Size (bbl)
114977	TF #6: Wash Tank w/VRS	10,000	000766	Hibberd #7: Stock Tank w/VRS	1,000
105964	TF #6: Wash Tank w/VRS	1,250	000617	Hibberd #7: Stock Tank w/VRS	1,000
109943	TF #6: Wash Tank w/VRS	5,000	113667	TF #18: Wash Tank w/VRS	1,500
105087	TF #6: Wash Tank w/VRS	1,500	112293	TF #18: Crude Oil Tank w/VRS	1,000
000596	TF #6: LACT Tank w/VRS	1,000	000612	TF #18: Test Tank w/VRS	1,000
000763	TF #6: LACT Tank w/VRS	1,000	391693	TF #18 Wash Tank w/VRS	5,000
008302	TF #10: Crude Oil Slop Tank w/VRS	2,000			

(a) Emission Limits: Mass emission for the tanks listed above shall not exceed the limits listed in Tables 5.1 through 5.3. The federally-enforceable limits are denoted by a “FE” and a reference for the limit right hand column of Tables 5.1-3 and 5.1-4. Compliance with these limits shall be met by meeting the monitoring, recordkeeping and reporting outlined in (c), (d) and (e) below.

(b) Operational Limits:

- The following tanks are subject to federally-enforceable throughput limits either on a basis of tank farm throughput or individual throughput limits. Those tanks and their respective throughput limits are specified in the table below titled “*Federally-enforceable Throughput Limits.*”

Federally-enforceable Throughput Limits		
Item	Operation/Throughput Limit	ATC
Tank Farm #6	1,970 BOPD of blended crude oil & NGLs through the LACT Tanks	10849, 11558, 12883, 12883-01, 13876
Tank Farm #10	365 days/yr, 300 BOPD for the entire tank farm	9592
Tank Farm #18	Wash Tanks 588 BOPD Crude Tank 588 BOPD Test Tank 500 BOPD	12925, 13567, 14982, 15098

- The true vapor pressure of the blended crude oil and LPG processed at Tank Farm #6 shall not exceed 10 psia.
- The true vapor pressure of the crude processed in Device ID 114977 (10,000 bbl wash tank) at Tank Farm # 6 shall not exceed 2.64 psia.
- NGLs shall not be processed through the wash tanks at Tank Farm 6.
- All process operations from the equipment listed in this condition shall meet the requirements of District Rules 325 Sections D, E, F and G. Rule 325.D requires the tanks to be connected to vapor collection and removal device(s) prior to their operation, and the vapor removal efficiencies to be no less than 90-percent, unless the tank meets one of the exemptions in Rule 325.B.
- Pursuant to Rule 343, Sections D, E, F and G, the permittee shall use a control device, approved in advance by the District, when degassing or purging any stationary tanks, vessels, or containers which process odorous sulfur compounds

provided the tank is subject to the Rule. These operations shall be conducted according to the most current District-approved tank degassing plan. A list of all vessels operated by the permittee is provided in Attachment 10.7 of this permit for reference.

(c) Monitoring:

1. The volumes of the oil/NGL mixture (in bbls) processed through LACT Tank #1 and LACT Tank #2 at Farm #6 shall be measured through the use of calibrated meters or through the use of a District-approved alternate method. The meter shall be calibrated according to manufacturer's specifications and the calibration records shall be made available to the District upon request.
2. The true vapor pressure of the blended crude oil and NGLs in the Tank Farm #6 LACT tanks shall be measured on an annual basis. The sample shall be taken as described in *Crude Oil Sampling* condition of this permit, and the TVP shall be measured per the Rule 325.G.2 procedure. The operator shall make pipeline run tickets that list the vapor pressure of shipments from Tank Farm #6 available to the District on request.
3. The volume of oil (in bbls) processed through Tank Farm #18 shall be measured through the use of a calibrated meter or through the use of a District-approved alternate method. The meter shall be calibrated according to manufacturer's specifications and the calibration records shall be made available to the District upon request.
4. The equipment listed in this condition shall be subject to all the monitoring requirements of District Rule 325.H. The test methods outlined in District Rule 325.G shall be used, when applicable. In addition, the permittee shall, for all degassing events, monitor the volume purged, characteristics of the vapor purged, and control device/method used.

(d) Recordkeeping:

1. The volume of oil/NGL mixture processed each month through Tank Farm #6 and the number of days that oil/NGLs were processed through Tank Farm #6.
2. The API gravity and the true vapor pressure shall be based on the maximum expected operating temperature for each crude oil storage tank. The tank temperature shall also be recorded at the time of API gravity and vapor pressure tests.
3. The volume of oil processed each month through Tank Farm #18 and the number of days that oil/oil was processed through Tank Farm #18.
4. Records required by District Rules 325.F.

(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: ATC 10849, ATC 10954, ATC 11558, ATC 12279, ATC 12883, ATC 12883-01, ATC 12925, ATC 13567, ATC 13876, ATC 14185, ATC 15098, ATC 14982, 40 CFR 70.6(a)(3), District Rules 206, 325, 343 and 1303]

- C.3 **Produced Water Tanks, Pits and Well Cellars:** The following equipment is included in this emissions category:

Device #	Description	Device #	Description
		000879	Machader PWTP: Pit
000745	TF #6: Produced Water Pit	000880	Perkins PWTP: Pit
000860	TF #6: Produced Water Pits	000881	Perkins PWTP: Pit
000861	TF #7: Pits (Hibberd)	000882	Perkins: Produced Water Pit
000746	TF #7: Pit (Hibberd)	000883	Perkins WWTP: Produced Water Pit
000748	TF #10: Pit	000740	Well Cellars
000863	TF #10: Produced Water Pits	113736	Perkins: Produced Water Tank (East)
000872	TF #18: Produced Water Pits	000760	Perkins: Produced Water Tank (West)
000756	TF #18: Pit	386662	Machader: Produced Water Tank
000878	Machader PWTP: Pit	393131	Machader: Produced Water Tank

- (a) **Emission Limits:** The emissions listed in Tables 5.1-3 and 5.1-4 shall not be exceeded. These emission limits are not federally-enforceable.
- (b) **Operational Limits:** All process operations from the pits and well cellars listed in this section shall meet the requirements of District Rule 344, Sections D, E, and F.
- The Machader and Perkins produced water tanks (113736, 000760, 386662, and 393131) qualify for the exemption provided by Rule 325.1.a due to at the initial storage tank entry point of less than 0.50 psia at each facility. These exemptions shall be re-assessed through compliance with the monitoring, recordkeeping and reporting conditions in this permit. If the true vapor pressure exceeds 0.50 psia, the operator shall apply for and obtain an Authority to Construct to install a vapor recovery system at the produced water plant that exceeded the vapor pressure limit. The vapor recovery shall meet the requirements of Rule 325.D.1.
 - Pursuant to Rule 343, Sections D, E, F and G, the permittee shall use a control device, approved in advance by the District, when degassing or purging any stationary tanks, vessels, or containers which process odorous sulfur compounds provided the tank is subject to the Rule. These operations shall be conducted with the permittee's tank degassing plan as approved by the District on September 20, 1995 and subsequent District-approved revisions. A list of all vessels operated by the permittee is provided in Section 10.5 of the permit for reference.
 - The well cellars associated with Hibberd 25-36 and SCU 25M-31 shall be completely filled in with soil.
 - The following well cellars associated with Decision of Issuance 086 shall be completely filled in with soil:

Lease Name	Well Name	API #
South Cuyama	01-32	083-21695
South Cuyama	13-31	083-00738
South Cuyama	14-31	083-00322
South Cuyama	23-31	083-00327
South Cuyama	32-35	083-03232
South Cuyama	37-31	083-03245
South Cuyama	42-36	083-03256
South Cuyama	43-06	083-03258
South Cuyama	47-31	083-03274
South Cuyama	48-26	083-03277
South Cuyama	52-36	083-00692
South Cuyama	52-06	083-00659
South Cuyama	58-31	083-00112
South Cuyama	73-36	083-03324
South Cuyama	74-06	083-03325
South Cuyama	76-06	083-03331
South Cuyama	77-26	083-01016
South Cuyama	78-26	083-03336
South Cuyama	81-35	083-03340
South Cuyama	85-36	083-03349

(c) Monitoring:

1. The true vapor pressure of the fluids entering the initial storage tank at the Machader and Perkins Produced Water Plants, or other storage tanks if requested in writing by the District, shall be measured annually. The true vapor pressure shall be measured at the operating temperature of the tank using the methods described in Rule 325.G.2.
2. The permittee shall inspect the well cellars on a weekly basis to ensure that the liquid depth and the oil/petroleum depth does not exceed the limits in Rule 344.D.3.c. The pits and well cellars listed in this section are subject to all the monitoring requirements of District Rule 344.H. The test methods outlined in District Rule 344.I shall be used, when applicable. In addition, in accordance with Rule 343.F, the permittee shall monitor and record all applicable parameters for all degassing events.

(d) Recordkeeping:

1. The dates and results of true vapor pressure measurements at the Perkins Produced Water Plant.
2. The pits and well cellars listed in this section are subject to all the recordkeeping requirements of Rule 344.G. The produced water tanks listed in this section are subject to all the recordkeeping requirements listed in District Rule 325.F. In addition, the permittee shall maintain a log of all degassing events, and record all the parameters listed in Condition 9.C.2.(c)4 above.

- (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: ATC 13605, ATC 13864 ATC 14903, ATC 15217, ATC 15370, 40 CFR 70.6(a)(3), District Rules 206, 325, 343, 344 and 1303]

C.4 Gas Station:

Description	Gas Station
Tank	One 1,500 gallon Aboveground Storage Tank
Tank Device ID #	112769
Dispenser	Fill-Rite Model No. FR702
Dispenser Device ID #	112768
Phase I VR Executive Order	G-70-132-B
Phase II VR Executive Order	G-70-52-AM

- (a) **Emission Limits:** Facility emissions of Reactive Organic Compounds (ROCs) shall not exceed either 0.18 lbs/day or 0.03 tons/yr. Compliance with this condition will be assessed through: (a) the annual gasoline throughput limit, (b) the vapor recovery systems testing, and (c) the inspection and maintenance requirements of this permit, Rule 316, the applicable Executive Orders and State laws, rules and regulations. A copy of this permit and complete copies of the applicable Phase I and Phase II Executive Orders shall be maintained onsite at all times and be made available upon request.

Note: The gas station Phase I and Phase II Vapor Recovery Systems (VRS) were permitted under Authority to Construct 13306, therefore the emission limits associated with the gas station are federally-enforceable.

(b) **Operational Limits:**

1. **Throughput Limitations:** Gasoline throughput shall not exceed 36,000 gallons per year. Records shall be kept on site by the operator and shall be made available to District personnel upon request.
 2. **Facility Condition:** Any defective component of the Vapor Recovery System (VRS) shall be removed from service until it is repaired, replaced, or adjusted as necessary to ensure compliance.
 3. **Facility Maintenance:** The equipment shall be properly maintained and kept in good condition at all times.
 4. **Vapor Tight Seals:** Gauging and sampling devices on the tanks shall be equipped with vapor-tight covers which shall be closed at all times except during gauging or sampling.
 5. **Equipment Operation:** Equipment operation shall be conducted in compliance with all data, specifications and assumptions included with the applications and as documented in the District's project file. The VRS system(s) listed above shall be installed, operated and maintained in accordance with the applicable California Air Resources Board (CARB) Executive Orders. All operations shall comply with the requirements of District Rule 316.
- (c) **Monitoring:** The permittee shall monitor the vapor recovery system on a regular basis to ensure compliance with Condition 9.C.4.b above by doing the following:
1. **Vapor Recovery System (VRS) Testing – Routine/Ongoing Operations:** The permittee shall routinely conduct and successfully pass the VRS system tests as outlined in Attachment 10.3 as well as any VRS specific tests required in the

applicable Executive Orders. These tests shall be conducted pursuant to Attachment 10.3 and shall be performed pursuant to test protocols approved by the ARB. Pre-testing shall not be performed within 24 hours of the arranged test date. In order for the District to witness testing, the permittee shall notify the District via e-mail (vrstest@sbcapcd.org) of the planned testing date not less than five (5) business days prior to the testing. Inspection fees, per Rule 210.F.4, will be assessed when an arranged inspection is cancelled by the permit holder or their representative after a District Inspector is onsite. All data for each test (including any data showing initial test failures) shall be sent to the District via e-mail (vrstest@sbcapcd.org) or mailed to the District at 260 North San Antonio Drive, Suite A, Santa Barbara, CA, 93110 (Attn: *Compliance Division*) within 30 days of successful test completion, using District or ARB approved reporting forms¹.

2. Inspection, Repair, Testing, and Throughput Records: The permittee shall keep clear and legible records of all inspections, maintenance, repairs, and testing of any of the gasoline dispensing VRS components at this station. This includes, but is not limited to, the activities for normal operation and maintenance per the manufacturer, ISD control panel alarm tracking (if applicable), performance and/or compliance testing according to ARB protocols, and those following damage to dispensing equipment from a “driveoff” or other kind of damage. The permittee shall ensure that all records obtained from third party contractors are a legible form. The records listed in Attachment 10.4 shall be maintained on site by the permittee for at least three years and shall be made available for District inspection upon request.

- (d) Recordkeeping: The permittee shall record and maintain the following information. This data shall be maintained for a minimum of three (3) years from the date of each entry and made available to the District upon request:
 1. The monthly and annual gasoline throughput. The annual throughput shall be compiled by summing the monthly totals over a calendar year.
 2. Inspection, repair and testing records required by Section 9.C.4.(c)2.
- (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: ATC 11136, ATC 13306, 40 CFR 70.6(a)(3), District Rules 206 and 316]

C.5 **Solvent Usage**: The following items are included in this emissions unit category: Photochemically reactive solvents, surface coatings and general solvents.

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

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

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

1. *Reclamation Plan*: The permittee may submit a Plan to the District for the disposal of any reclaimed solvent. If the Plan is approved by the District, all solvent disposed of pursuant to the Plan will not be assumed to have evaporated as emissions into the air and, therefore, will not be counted as emissions from the source. The permittee shall obtain District approval of the procedures used for such a disposal Plan. The Plan shall detail all procedures used for collecting, storing and transporting the reclaimed solvent. Further, the ultimate fate of these reclaimed solvents must be stated in the Plan.
- (c) Monitoring: none
- (d) Recordkeeping: The permittee shall record in a log the following on a monthly basis for each solvent used: amount used; the percentage of ROC by weight (as applied); the solvent density; the amount of solvent reclaimed for District-approved disposal; whether the solvent is photochemically reactive; and, the resulting emissions to the atmosphere in units of pounds per month and pounds per day. Product sheets (MSDS or equivalent) detailing the constituents of all solvents shall be maintained in a manner readily accessible to District inspection.
- (e) Reporting: On a semi-annual basis, a report detailing the previous six-month's activities at the entire stationary source shall be provided to the District. The report must list all data required by the *Semi-Annual Compliance Verification Reports* condition of this permit. [Re: District Rules 317, 322, 323, 324 and 1303, PTO 7250, 40 CFR 70.6]

C.6 **Requirements for Produced Gas**: The emissions of produced gas shall be controlled at all times using a properly maintained and operated system that directs all produced gas, except gas used in a tank battery vapor recovery system or venting from tanks not required to be connected to vapor recovery, to one of the following: (a) a system handling gas for fuel, sale, or underground injection; or (b) a flare that combusts reactive organic compounds; or (c) a device with an ROC vapor removal efficiency of at least 90-percent by weight. The provisions of this condition shall not apply to wells which are undergoing routine maintenance. [Re: District Rule 325]

C.7 **Pigging Operations**: The following conditions shall apply:

- (a) Emission Limits: n/a.
- (b) Operational Limits: The following operational limits shall apply:
1. Pigging operations may occur on an 'as-needed' basis. With the exception of emergency pigging, E&B shall provide the District a 72-hour notice prior to conducting pigging operations to allow the District to witness the pigging procedures. The District may require sampling for ROCs of the contents of a pigging vessel that are vented to the atmosphere. The District shall be notified of any emergency pigging event within 48 hours of occurrence.
 2. Prior to opening the pig launcher, pig receiver or the pig strainer, the unit shall be purged with nitrogen for 5-minutes in accordance with the District-approved *Pigging Operations and Purging Procedures Plan*.

3. Access openings and ports on the pigging units and strainer shall be kept closed at all times, except during pig retrievals and pig launchings, as necessary, or during active maintenance operations.
- (c) **Monitoring:** The following monitoring procedures shall apply:
1. All monitoring requirements listed in the *Pigging Operations and Purging Procedures Plan*
- (d) **Recordkeeping:** The following records shall be maintained by the permittee and shall be made available to the District upon request:
1. The date of each pigging event.
 2. All recordkeeping requirements contained in the *Pigging Operations and Purging Procedures Plan*
- (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 Recordkeeping condition above.

C.8 Semi-Annual Compliance Verification Reports: The permittee shall submit a report to the District every six months to verify compliance with the emission limits and other requirements of this permit. 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) **Fugitive Hydrocarbon I&M Data** (Only required to be submitted with July through December report):
1. Inspection summary.
 2. Record of leaking components.
 3. Record of leaks from critical components.
 4. Record of leaks from components that incur five repair actions within a continuous 12-month period.
 5. Record of component repair actions including dates of component re-inspections.
- (b) **Petroleum Storage and Processing Tanks:**
1. The volume of blended oil/NGLs processed each month through Tank Farm #6 and the number of days that oil/NGLs was processed through the tank farm.
 2. The annual true vapor pressure of the blend of crude oil/NGLs processed through Tank Farm #6.
 3. The volume of oil processed each month through Tank Farm #18 and the number of days that oil was processed through the tank farm.

4. Records required by District Rules 325.F.

- (c) Produced Water Tanks, Pits and Well Cellars: The dates and results of true vapor pressure measurements at the Machader and Perkins Produced Water Plants.
- (d) Gas Station: The monthly and annual gasoline throughput. The annual throughput shall be compiled by summing the monthly totals over a calendar year.
- (e) Surface Coating and Solvent Usage: On a monthly basis the amount of surface coating/solvent used at the entire stationary source; the percentage of ROC by weight (as applied); the surface coating/solvent density; the amount of solvent reclaimed; whether the surface coating/solvent is photochemically reactive; and, the resulting emissions of ROC and photochemically reactive surface coatings/solvents to the atmosphere in units of pounds per month.
- (f) Pigging Operations: The date of each pigging event and all recordkeeping requirements contained in *Pigging Operations and Purging Procedures Plan*
- (g) Throughput: The volume of oil produced each month and the number of days that oil was produced through the tank farms.
- (h) Emissions: Annual NO_x and ROC emissions from both permitted and exempt equipment. [Re: 40 CFR 70.6(a)(3)(iii), District Rules 206 and 331]

C.9 **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) *Tank Degassing Plan* (dated July 13, 2015 and approved July 23, 2015 and all subsequent approved updates).
- (d) *Fuel Use Monitoring Plan* (dated September 16, 1993 and approved by the District March 24, 1994 and all subsequent approved updates).
- (e) *Fugitive Emissions Inspection and Monitoring Plan* (dated June 2008 and all subsequent approved updates) [Re: Rule 331].
- (f) *Pigging Operations and Purging Procedures Plan* (December 2016)

C.10 **DOI #0086:** The conditions and limits contained in DOI #0086 (and all updates thereof) are hereby incorporated by reference as an enforceable part of this permit.

- C.11 **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.12 **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.13 **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.14 **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 **Compliance with Permit Conditions:** The permittee shall comply with all permit conditions in Section 9.D.
- D.2 **Condition Acceptance:** Acceptance of this operating permit by E&B shall be considered as acceptance of all terms, conditions, and limits of this permit. [Re: District Rule 206]
- D.3 **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.4 **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.5 **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.6 **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.7 **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.8 **Consistency with Federal, State and Local Permits:** Nothing in this permit shall relax any air pollution control requirement imposed on the permittee by any other governmental agency.
- D.9 **Solvent Usage:** The permittee shall comply with the requirements listed below for all solvent usage:
 - (a) Vessels or containers used for storing materials containing organic solvents shall be kept closed unless adding to or removing material from the vessel or container.
 - (b) All materials that have been soaked with cleanup solvents shall be stored, when not in use, in closed containers that are equipped with tight seals.

- (c) Solvent leaks shall be minimized to the maximum extent feasible or the solvent shall be removed to a sealed container and the equipment taken out of service until repaired. A solvent leak is defined as either the flow of three liquid drops per minute or a discernible continuous flow of solvent.
- D.10 **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. Compliance with this condition will be determined using the same fugitive hydrocarbon emission calculation methodology as outlined in Section 10.2.
- (b) All routine venting of hydrocarbons shall be routed to either a compressor, flare header or other District-approved control device.
- D.11 **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.12 **Permitted Equipment:** Only those equipment items listed in Attachment 10.5 are covered by the requirements of this permit and District Rule 201.B.
- D.13 **Mass Emission Limitations:** Mass emissions for each equipment item (i.e., emissions unit) associated with the South Cuyama Unit 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.14 **Operation/Throughput Limitations:** The South Cuyama Unit shall not exceed the following throughput limitations:
- Oil Production (dry): 2,558 bbl/day
- Note: Calculated as monthly production volume divided by the number of production days.
- D.15 **Process Stream Sampling and Analysis:** The permittee shall sample and analyze the process streams listed in Section 4.9 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. Crude oil samples shall be obtained from an active flow line into the tank farm, or from the tank farm at the Lease Automatic Custody Transfer (LACT) unit, provided that there is an active flow of crude into the tank farm. E&B shall sample from individual tanks if requested in writing by the District.
- D.16 **Process Monitoring Systems - Operation and Maintenance:** All facility process monitoring devices listed in Section 4.8 shall be properly operated and maintained according to manufacturer recommended specifications and the District approved Process *Monitor Calibration and Maintenance Plan*.
- D.17 **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. In addition to any other recordkeeping requirements the following records shall be maintained:

- (a) The volume of oil produced each month and the number of days that oil was produced through the tank farms. On an annual basis, the API gravity and true vapor pressure, calculated at the maximum expected storage temperature of the stored crude oil in each storage tank shall be recorded according to the test methods described in Rule 325.G. The calculated true vapor pressure shall be based on the maximum expected operating temperature for each crude oil storage tank. This temperature shall also be recorded at the time of API gravity and Reid vapor pressure tests.
- (b) The quantity of gaseous fuel burned each month on the property and sulfur content measurements (H₂S) when detector tube sampling is required during Southern California Gas sulfur analyzer alarms or downtime.
- (c) On an annual basis, the amount of coatings and petroleum products (solvents) used. This information must be logged for each coating or solvent. The log shall list (for each material) the quantity of material used, the VOC/ROC content, whether the material is photochemically reactive per the definition of Rule 102.FF, and whether the material was applied to a surface or disposed of. A Material Safety Data Sheet (MSDS), or other product specification sheet, which specifies the VOC content of the material, shall be maintained with the log.
- (d) True vapor pressure measurements calculated at the maximum expected storage temperature at the initial storage tank entry point of the stored crude oil in each storage tank located at the Machader and Perkins Produced Water Treatment Plants according to the test methods described in Rule 325.G. The calculated true vapor pressure shall be based on the maximum expected operating temperature for each crude oil storage tank. This temperature shall also be recorded at the time of API gravity and Reid vapor pressure tests. Sampling of crude oil shall be obtained completed per Condition 9.D.15.

D.18 **Odorous Organic Sulfides (Rule 310):** The permittee shall not discharge into atmosphere H₂S 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 three (3) minutes and 0.03 ppmv averaged over one (1) hour. [*Re: District Rule 310*]

D.19 **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. These reports 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. 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) Oil processed through the tanks along with the number of days per month of production.
- (b) Surface coating usage.
- (c) API gravity, true vapor pressure and storage temperature of the oil.

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

D.20 **Off-Permit Equipment:** The equipment listed in Section C (*Off-Permit*) of the permit equipment list are depermitted and may remain abandoned in place. The equipment shall remain disconnected, open to atmosphere and free of any hydrocarbons, or be removed from the stationary source completely. The off-permit equipment shall not be operated at the stationary source without first obtaining a new ATC permit from the District.

AIR POLLUTION CONTROL OFFICER


Date

Notes:

- a. This permit supersedes Part 70/PTO 7250-R110, PTO 15528
- b. Permit Reevaluation Due Date: June 2026

RECOMMENDATION

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

<u>J. Menno</u>	<u>June 2023</u>	<u></u>	<u>June 2023</u>
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)\\SCU\\Final Reeval-Part70 7250-R12 SCU (06-13-23).docx

10.0 Attachments

10.1 Emission Calculation Documentation

10.2 Emission Calculation Spreadsheets

10.3 Gas Station Vapor Recovery System Testing Requirements

10.4 Gas Station Vapor Recovery System Facility Repair Log and Testing Records

10.5 IDS Tables

10.6 Fee Statement

10.7 Equipment List

10.1 EMISSION CALCULATION DOCUMENTATION - SOUTH CUYAMA UNIT:

This attachment contains all relevant emission calculation documentation used for the emission tables in Section 5. Refer to Section 4 for the general equations. The letters A-E refer to Tables 5.1-1 and 5.1-2.

Reference A – Petroleum Storage Tanks

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

Reference B – Produced Water Tanks, Sumps and Well Cellars

- The maximum operating schedule is in units of hours;
- Emission calculation methodology based on the CARB/KVB report *Emission Characteristics of Crude Oil Production Operations in California* (1/83);
- Calculations are based on surface area of emissions noted in the inspector's report;
- The THC Speciation is based on CARB profiles # 529, 530, 531, 532; the ROC/TOC ratio is based on the District's guideline "*VOC/ROC Emission Factors and Reactivities for Common Source Types*" Table dated 4/2/97 (version 1.0).

Reference C - Components Emitting Fugitive ROCs

- Emission factors are based on *District P&P 6100.060* and *District P&P 6100.061*.
- In determining the facility model using the CARB/KVB methodology for fugitive emissions, a default Gas Oil Ratio of 501 scf/bbl was used. This value assumes the worst case model.
- An 80% reduction in fugitive emissions was assumed due to the implementation of a fugitive inspection and maintenance plan pursuant to Rule 331.

Reference D -- Solvents

All solvent and coating emissions are calculated on a mass balance basis. The emissions are based on the limits in PTO 7250-R11.

Reference E – Gas Station

The Gas Station emissions are calculated based on the District Gas Station Permit Guideline Document, July 23, 1997.

10.2 Emission Calculation Spreadsheets

FIXED ROOF TANK EMISSION CALCULATIONS (Ver. 4.0)				
Attachment: 10.2 - TF #6 5,000 bbl Wash Tank Permit Number: PTO 7250-R12 Facility: SCU				
Basic Input Data				
<u>Information</u>	<u>Value</u>	<u>Reference</u>		
Liquid Type.....	Crude Oil	Permit Application		
Liquid TVP.....	2.64	Permit Application		
If TVP is entered, enter TVP temperature (°F).....	100	Permit Application		
Is the tank heated (Yes or No)?.....	no	Permit Application		
If tank is heated, enter temperature (°F).....		Permit Application		
Is tanked to a VRS (Yes or No)?.....	Yes	Permit Application		
Is this a wash tank (Yes or No)?.....	Yes	Permit Application		
Will flashing losses occur (Yes or No)?.....	no	Permit Application		
Breather vent pressure setting range (psi).....	0.06	Permit Application (default of 0.06 psi)		
Tank Data				
<u>Information</u>	<u>Value</u>	<u>Reference</u>		
Diameter (feet).....	38.6	Permit Application		
Capacity (barrels).....	5,000	Permit Application		
Capacity (gallons).....	210,000	Calculated Value		
Roof Type (Enter C if Conical, or D if Dome Roof).....	c	Permit Application		
Shell Height (feet).....	24	Permit Application		
Roof Height.....	1	Permit Application (default of 1 foot)		
Average Liquid Height (feet).....	23	Calculated Value		
Tank Paint Color.....	Spec Aluminum	Permit Application		
Condition (Enter 1 if Good, or 2 if Poor).....	1	Permit Application (default of 0.06 psi)		
Upstream pressure (psi).....	0.06	Permit Application (0 psi when no flashing losses occur)		
Liquid Data				
<u>Information</u>	<u>Value</u>	<u>Reference</u>		
Maximum Daily Throughput (barrels per day).....	1970	Permit Application		
Maximum Annual Throughput (gallons).....	3.020E+07	Calculated Value		
RVP (psi).....	2.52803	RVP Matrix		
API Gravity (°).....	31	Permit Application		
Vapor Recovery System Data				
<u>Information</u>	<u>Value</u>	<u>Reference</u>		
Vapor Recovery System Long Term Efficiency.....	95.00%	SBCAPCD		
Vapor Recovery System Short Term Efficiency.....	95.00%	SBCAPCD		
Tank ROC Potential to Emit				
	Uncontrolled Potential to Emit		Controlled Potential to Emit	
	lb/day	TPY	lb/day	TPY
Breathing Losses	1.27	0.23	0.10	0.02
Working Losses	0.00	0.00	0.00	0.00
Flashing Losses	0.00	0.00	0.00	0.00
Total	1.27	0.23	0.10	0.02
Processed By: JJM Date: Mar-23				

FIXED ROOF TANK EMISSION CALCULATIONS (Ver. 4.0)																																					
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FIXED ROOF TANK EMISSION CALCULATIONS (Ver. 4.0)				
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Basic Input Data				
<u>Information</u>	<u>Value</u>	<u>Reference</u>		
Liquid Type.....	Crude Oil	Permit Application		
Liquid TVP.....	3	Permit Application		
If TVP is entered, enter TVP temperature (°F).....	67.2	Permit Application		
Is the tank heated (Yes or No)?.....	No	Permit Application		
If tank is heated, enter temperature (°F).....		Permit Application		
Is tanked to a VRS (Yes or No)?.....	Yes	Permit Application		
Is this a wash tank (Yes or No)?.....	Yes	Permit Application		
Will flashing losses occur (Yes or No)?.....	No	Permit Application		
Breather vent pressure setting range (psi).....	0.06	Permit Application (default of 0.06 psi)		
Tank Data				
<u>Information</u>	<u>Value</u>	<u>Reference</u>		
Diameter (feet).....	21.5	Permit Application		
Capacity (barrels).....	5,000	Permit Application		
Capacity (gallons).....	210,000	Calculated Value		
Roof Type (Enter C if Conical, or D if Dome Roof).....	c	Permit Application		
Shell Height (feet).....	20	Permit Application		
Roof Height.....	1	Permit Application (default of 1 foot)		
Average Liquid Height (feet).....	19	Calculated Value		
Tank Paint Color.....	Spec Aluminum	Permit Application		
Condition (Enter 1 if Good, or 2 if Poor).....	1	Permit Application (default of 0.06 psi)		
Upstream pressure (psi).....	0.06	Permit Application (0 psi when no flashing losses occur)		
Liquid Data				
<u>Information</u>	<u>Value</u>	<u>Reference</u>		
Maximum Daily Throughput (barrels per day).....	588	Permit Application		
Maximum Annual Throughput (gallons).....	9.014E+06	Calculated Value		
RVP (psi).....	4.62579	RVP Matrix		
API Gravity (°).....	12	Permit Application		
Vapor Recovery System Data				
<u>Information</u>	<u>Value</u>	<u>Reference</u>		
Vapor Recovery System Long Term Efficiency.....	95.00%	SBCAPCD		
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Tank ROC Potential to Emit				
	Uncontrolled Potential to Emit		Controlled Potential to Emit	
	lb/day	TPY	lb/day	TPY
Breathing Losses	1.17	0.21	0.06	0.01
Working Losses	0.00	0.00	0.00	0.00
Flashing Losses	0.00	0.00	0.00	0.00
Total	1.17	0.21	0.06	0.01
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FIXED ROOF TANK EMISSION CALCULATIONS (Ver. 4.0)																																					
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Processed By: JJM			Date: March 2023																																		

FUGITIVE HYDROCARBON CALCULATIONS - CARB/KVB METHOD

Page 1 of 2

ADMINISTRATIVE INFORMATION

Attachment: 10.2 - Well Cellars/Produced Water Tanks

Company: E&B Resources

Facility: SCU

Processed by: JJM

March 9, 2023

Path & File Name:

\\sbcpd.org\shares\Groups\ENGR\WPI\Oil&Gas\Major Sources\SSID 01073 E & B - South Cuyama\Reevals\Reevals (2023)\SCU\PTO 7250-R12 Table 5.xlsx\FHC CALC

Version: fhc-kvb5.xls

Date: 24-Oct-00

Reference: CARB speciation profiles #s 529, 530, 531, 532

Data	Value	Units
Number of Active Wells at Facility	217	wells
Facility Gas Production		scf/day
Facility Dry Oil Production		bbls/day
Facility Gas to Oil Ratio (if > 500 then default to 501)		scf/bbl
API Gravity		degrees API
Facility Model Number	6	dimensionless
No. of Steam Drive Wells with Control Vents	0	wells
No. of Steam Drive Wells with Uncontrolled Vents	0	wells
No. of Cyclic Steam Drive Wells with Control Vents	0	wells
No. of Cyclic Steam Drive Wells with Uncontrolled Vents	0	wells
Composite Valve and Fitting Emission Factor	4.2085	lb/day-well

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

Model #1: Number of wells on lease is less than 10 and the GOR is less than 500.

Model #2: Number of wells on lease is between 10 and 50 and the GOR is less than 500.

Model #3: Number of wells on lease is greater than 50 and the GOR is less than 500.

Model #4: Number of wells on lease is less than 10 and the GOR is greater than 500.

Model #5: Number of wells on lease is between 10 and 50 and the GOR is greater than 500.

Model #6: Number of wells on lease is greater than 50 and the GOR is greater than 500.

ROC Emission Calculation Summary Results Table Reactive Organic Compounds^(c)

	lbs/hr	lbs/day	tons/year
Valves and Fittings ^(a)	7.61	182.65	33.33
Sumps, Wastewater Tanks and Well Cellars ^(b)	14.23	341.61	62.34
Oil/Water Separators ^(b)	0.00	0.00	0.00
Pumps/Compressors/Well Heads ^(a)	0.15	3.54	0.65
Enhanced Oil Recovery Fields	0.00	0.00	0.00
Total Facility FHC Emissions (ROC)	21.99	527.80	96.32

a: Emissions amount reflect an 80% reduction due to Rule 331 implementation.

b: Emissions reflect control efficiencies where applicable.

c: Due to rounding, the totals may not appear correct

Emission Calculation by Emission Unit

Pumps, Compressors, and Well Heads Uncontrolled Emission Calculations

Number of Wells	217	wells
Wellhead emissions	2.1049	ROC (lb/day)
FHC from Pumps	0.8463	ROC (lb/day)
FHC from Compressors	14.7343	ROC (lb/day)
Total:	17.6855	ROC (lb/day)

Sumps, Uncovered Wastewater Tanks, and Well Cellars

Efficiency Factor: (70% for well cellars, 0% for uncovered WW tanks, sumps and pits)

Unit Type/Emissions Factor

	Heavy Oil Service	Light Oil Service	
Primary	0.0941	0.138	(lb ROC/ft ² -day)
Secondary	0.0126	0.018	(lb ROC/ft ² -day)
Tertiary	0.0058	0.0087	(lb ROC/ft ² -day)

Surface Area and Type (emissions in lbs/day)

Description/Name	Number	Area (ft ²)	Primary	Secondary	Tertiary
Well Cellars		5,526	228.78		
TF #6 Produced Water Pit		126			1.10
TF #6 Produced Water Pits		18		0.32	
TF #7 Hibbard Pits		18		0.32	
TF #7 Hibbard Pits		90			0.78
TF #10 Pit		99			0.86
TF #10 Produced Water Pits		18		0.32	
TF #18 Produced Water Pits		18		0.32	
TF #18 Pit		117			1.02
Machader PWTP: Pit		150			1.31
Machader PWTP: Pit		3,000			26.10
Perkins PWTP: Pit		1,980			17.23
Perkins PWTP: Pit		4,500			39.15
Perkins PWTP: Pit		540			4.70
Perkins PWTP: Pit		1,800			15.66
Perkins Produced Water Tank (East)		693			0.91
Perkins Produced Water Tank (West)		693			0.91
Machader Produced Water Tank		693			0.91
Machader Produced Water Tank		693			0.91

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

228.78 1.30 111.54

Covered Wastewater Tanks

Efficiency Factor: 85%

Surface Area and Type (emissions in lbs/day)

Description/Name	Number	Area (ft ²)	Primary	Secondary	Tertiary
			0.00		
				0.00	
					0.00
			0.00	0.00	0.00

Covered Wastewater Tanks Equipped with Vapor Recovery

Efficiency Factor: 95%

Surface Area and Type (emissions in lbs/day)

Description/Name	Number	Area (ft ²)	Primary	Secondary	Tertiary
			0.00		
				0.00	
					0.00
			0.00	0.00	0.00

Oil/Water Separators

Efficiency Factor: varies (85% for cover, 95% for VRS, 0% for open top)

Emissions Factor: 560 (lb ROC/MM Gal)

Description/Name	TP-MM Gal	Type (emissions in lbs/day)	Total lb/day
		Equipped with Cover	
		Equipped with VRS	
		Open Top	
		0.0	
		0.0	
		0.0	
		0.0	0.0

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

Attachment: 10.2 - (ATC 15098 clips for 10,000 bbl Wash Tank)
 Permit Number: PTO 7250-R12
 Facility: SCU

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

Gas/Condensate Service Component

Component Type	Component Count	THC Emission Factor (lb/day-cip) ^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/Qty)	Controlled ROC Emission (Tons/Yr)
Valves - Accessible/inaccessible	2	0.295	0.31	0.18	0.80	0.00	0.04	0.00	0.01
Valves - Unsafe	0	0.295	0.31	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.295	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.295	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.295	0.31	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.295	0.31	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.295	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.295	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.295	0.31	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.295	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.295	0.31	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/inaccessible	51	0.070	0.31	1.11	0.80	0.01	0.22	0.01	0.04
Flanges/Connections - Unsafe	0	0.070	0.31	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.070	0.31	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.070	0.31	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.070	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.070	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.070	0.31	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.070	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.070	0.31	0.00	0.92	0.00	0.00	0.00	0.00
Compressor Seals - To Atm	0	2.143	0.31	0.00	0.80	0.00	0.00	0.00	0.00
Compressor Seals - To VRS	0	2.143	0.31	0.00	1.00	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	0	6.670	0.31	0.00	0.80	0.00	0.00	0.00	0.00
PSV - To VRS	0	6.670	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	0	1.123	0.31	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem	0	1.123	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Gas Condensate Subtotals	53			1.29		0.01	0.26	0.01	0.05

Oil Service Components

Component Type	Component Count	THC Emission Factor (lb/day-cip) ^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/Qty)	Controlled ROC Emission (Tons/Yr)
Valves - Accessible/inaccessible	38	0.004	0.56	0.09	0.80	0.00	0.02	0.00	0.00
Valves - Unsafe	0	0.004	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.004	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.004	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.004	0.56	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.004	0.56	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.004	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.004	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.004	0.56	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.004	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.004	0.56	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/inaccessible	186	0.002	0.56	0.21	0.80	0.00	0.04	0.00	0.01
Flanges/Connections - Unsafe	0	0.002	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.002	0.56	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.002	0.56	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.002	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.002	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.002	0.56	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.002	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.002	0.56	0.00	0.92	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	0	0.267	0.56	0.00	0.80	0.00	0.00	0.00	0.00
PSV - To VRS	0	0.267	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	0	0.004	0.56	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem	0	0.004	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Oil Subtotals	224			0.30		0.00	0.06	0.00	0.01
Total	277			1.59		0.01	0.32	0.01	0.06

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: JLM
Date: March 2023

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

Attachment: 10.2 - (ATC 15098 clips for 5,000 bbl Wash Tank)

Permit Number: PTO 7250-R12

Facility: SCU

Facility Information

Facility Type (Enter X Where Appropriate)

Production Field

X

Gas Processing Plant

Refinery

Offshore Platform

Gas/Condensate Service Component

Component Type	Component Count	THC Emission Factor (lb/day-cip) ^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/Qty)	Controlled ROC Emission (Tons/Yr)
Valves - Accessible/inaccessible	11	0.295	0.31	1.01	0.80	0.01	0.20	0.01	0.04
Valves - Unsafe	0	0.295	0.31	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.295	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.295	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.295	0.31	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.295	0.31	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.295	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.295	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.295	0.31	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.295	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.295	0.31	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/inaccessible	106	0.070	0.31	2.30	0.80	0.02	0.46	0.02	0.08
Flanges/Connections - Unsafe	0	0.070	0.31	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.070	0.31	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.070	0.31	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.070	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.070	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.070	0.31	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.070	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.070	0.31	0.00	0.92	0.00	0.00	0.00	0.00
Compressor Seals - To Atm	0	2.143	0.31	0.00	0.80	0.00	0.00	0.00	0.00
Compressor Seals - To VRS	0	2.143	0.31	0.00	1.00	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	1	6.670	0.31	2.07	0.80	0.02	0.41	0.02	0.08
PSV - To VRS	0	6.670	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	0	1.123	0.31	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem	0	1.123	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Gas Condensate Subtotals	118			5.37		0.04	1.07	0.05	0.20

Oil Service Components

Component Type	Component Count	THC Emission Factor (lb/day-cip) ^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/Qty)	Controlled ROC Emission (Tons/Yr)
Valves - Accessible/inaccessible	21	0.004	0.56	0.05	0.80	0.00	0.01	0.00	0.00
Valves - Unsafe	0	0.004	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.004	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.004	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.004	0.56	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.004	0.56	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.004	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.004	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.004	0.56	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.004	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.004	0.56	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/inaccessible	107	0.002	0.56	0.12	0.80	0.00	0.02	0.00	0.00
Flanges/Connections - Unsafe	0	0.002	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.002	0.56	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.002	0.56	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.002	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.002	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.002	0.56	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.002	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.002	FALSE	0.00	0.92	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	0	0.267	0.56	0.00	0.80	0.00	0.00	0.00	0.00
PSV - To VRS	0	0.267	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	0	0.004	0.56	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem	0	0.004	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Oil Subtotals	128			0.17		0.00	0.03	0.00	0.01
Total	246			5.54		0.05	1.11	0.05	0.20

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: JLM

Date: March 2023

Part 70/Permit to Operate 7250-R12

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

Attachment: 10.2 - (PTO 15217 clips; Machadar Produced Water Tank)
 Permit Number: PTO 7250-R12
 Facility: SCU

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

Gas/Condensate Service Component

Component Type	Component Count	THC Emission Factor (lb/day-clip) ^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	8	0.295	0.31	0.73	0.80	0.01	0.15	0.01	0.03
Valves - Unsafe	0	0.295	0.31	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.295	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.295	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.295	0.31	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.295	0.31	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.295	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.295	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.295	0.31	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.295	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.295	0.31	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/inaccessible	54	0.070	0.31	1.17	0.80	0.01	0.23	0.01	0.04
Flanges/Connections - Unsafe	0	0.070	0.31	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.070	0.31	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.070	0.31	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.070	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.070	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.070	0.31	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.070	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.070	0.31	0.00	0.92	0.00	0.00	0.00	0.00
Compressor Seals - To Atm	0	2.143	0.31	0.00	0.80	0.00	0.00	0.00	0.00
Compressor Seals - To VRS	0	2.143	0.31	0.00	1.00	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	1	6.670	0.31	2.07	0.80	0.02	0.41	0.02	0.08
PSV - To VRS	0	6.670	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	0	1.123	0.31	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem	0	1.123	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Gas Condensate Subtotals	63			3.97		0.03	0.79	0.04	0.145

Oil Service Components

Component Type	Component Count	THC Emission Factor (lb/day-clip) ^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	1	0.004	0.56	0.00	0.80	0.00	0.00	0.00	0.00
Valves - Unsafe	0	0.004	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.004	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.004	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.004	0.56	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.004	0.56	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.004	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.004	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.004	0.56	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.004	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.004	0.56	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/inaccessible	3	0.002	0.56	0.00	0.80	0.00	0.00	0.00	0.00
Flanges/Connections - Unsafe	0	0.002	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.002	0.56	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.002	0.56	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.002	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.002	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.002	0.56	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.002	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.002	0.56	0.00	0.92	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	0	0.267	0.56	0.00	0.80	0.00	0.00	0.00	0.00
PSV - To VRS	0	0.267	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	0	0.004	0.56	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem	0	0.004	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Oil Subtotals	4			0.01		0.00	0.00	0.00	0.00
Total	67			3.98		0.03	0.80	0.04	0.145

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: JUM
Date: March 2023

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

Attachment: 10.2 - (PTO 14751 clips)

Permit Number: PTO 7250-R12

Facility: SCU

Facility Information

Facility Type (Enter X Where Appropriate)

Production Field

X

Gas Processing Plant

Refinery

Offshore Platform

Gas/Condensate Service Component

Component Type	Component Count	THC Emission Factor (lb/day-cip) ^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/Qty)	Controlled ROC Emission (Tons/Yr)
Valves - Accessible/inaccessible	71	0.295	0.31	6.49	0.80	0.05	1.30	0.06	0.24
Valves - Unsafe	0	0.295	0.31	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.295	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.295	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.295	0.31	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.295	0.31	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.295	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.295	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.295	0.31	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.295	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.295	0.31	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/inaccessible	349	0.070	0.31	7.57	0.80	0.06	1.51	0.07	0.28
Flanges/Connections - Unsafe	0	0.070	0.31	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.070	0.31	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.070	0.31	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.070	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.070	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.070	0.31	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.070	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.070	0.31	0.00	0.92	0.00	0.00	0.00	0.00
Compressor Seals - To Atm	0	2.143	0.31	0.00	0.80	0.00	0.00	0.00	0.00
Compressor Seals - To VRS	0	2.143	0.31	0.00	1.00	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	0	6.670	0.31	0.00	0.80	0.00	0.00	0.00	0.00
PSV - To VRS	0	6.670	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	0	1.123	0.31	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem	0	1.123	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Gas Condensate Subtotals	420			14.07		0.12	2.81	0.13	0.51

Oil Service Components

Component Type	Component Count	THC Emission Factor (lb/day-cip) ^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/Qty)	Controlled ROC Emission (Tons/Yr)
Valves - Accessible/inaccessible	0	0.004	0.56	0.00	0.80	0.00	0.00	0.00	0.00
Valves - Unsafe	0	0.004	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.004	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.004	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.004	0.56	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.004	0.56	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.004	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.004	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.004	0.56	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.004	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.004	0.56	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/inaccessible	0	0.002	0.56	0.00	0.80	0.00	0.00	0.00	0.00
Flanges/Connections - Unsafe	0	0.002	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.002	0.56	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.002	0.56	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.002	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.002	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.002	0.56	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.002	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.002	0.56	0.00	0.92	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	0	0.267	0.56	0.00	0.80	0.00	0.00	0.00	0.00
PSV - To VRS	0	0.267	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	0	0.004	0.56	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem	0	0.004	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Oil Subtotals	0			0.00		0.00	0.00	0.00	0.00
Total	420			14.07		0.12	2.81	0.13	0.51

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: JUM

Date: March 2023

Part 70/Permit to Operate 7250-R12

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

Attachment: 10.2 - PTO 15528

Permit Number: PTO 7250-R12

Facility: SCU

Facility Information

Facility Type (Enter X Where Appropriate)

Production Field

x

Gas Processing Plant

Refinery

Offshore Platform

Gas/Condensate Service Component

Component Type	Component Count	THC Emission Factor (lb/day-cip) ^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	47	0.295	0.31	4.30	0.80	0.04	0.86	0.04	0.16
Valves - Unsafe	0	0.295	0.31	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.295	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.295	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.295	0.31	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.295	0.31	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.295	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.295	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.295	0.31	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.295	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.295	0.31	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/inaccessible	653	0.070	0.31	14.17	0.80	0.12	2.83	0.13	0.52
Flanges/Connections - Unsafe	0	0.070	0.31	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.070	0.31	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.070	0.31	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.070	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.070	0.31	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.070	0.31	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.070	0.31	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.070	0.31	0.00	0.92	0.00	0.00	0.00	0.00
Compressor Seals - To Atm	2	2.143	0.31	1.33	0.80	0.01	0.27	0.01	0.05
Compressor Seals - To VRS	0	2.143	0.31	0.00	1.00	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	4	6.670	0.31	8.27	0.80	0.07	1.65	0.08	0.30
PSV - To VRS	0	6.670	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	1	1.123	0.31	0.35	0.80	0.00	0.07	0.00	0.01
Pump Seals - Dual/Tandem	0	1.123	0.31	0.00	1.00	0.00	0.00	0.00	0.00
Gas Condensate Subtotals	707			28.42		0.24	5.68	0.26	1.037

Oil Service Components

Component Type	Component Count	THC Emission Factor (lb/day-cip) ^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	0	0.004	0.56	0.00	0.80	0.00	0.00	0.00	0.00
Valves - Unsafe	0	0.004	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows	0	0.004	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv	0	0.004	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A	0	0.004	0.56	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	0	0.004	0.56	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C	0	0.004	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D	0	0.004	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E	0	0.004	0.56	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F	0	0.004	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G	0	0.004	0.56	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/inaccessible	0	0.002	0.56	0.00	0.80	0.00	0.00	0.00	0.00
Flanges/Connections - Unsafe	0	0.002	0.56	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A	0	0.002	0.56	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	0	0.002	0.56	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C	0	0.002	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D	0	0.002	0.56	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E	0	0.002	0.56	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F	0	0.002	0.56	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G	0	0.002	0.56	0.00	0.92	0.00	0.00	0.00	0.00
PSV - To Atm/Flare	0	0.267	0.56	0.00	0.80	0.00	0.00	0.00	0.00
PSV - To VRS	0	0.267	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single	0	0.004	0.56	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem	0	0.004	0.56	0.00	1.00	0.00	0.00	0.00	0.00
Oil Subtotals	0			0.00		0.00	0.00	0.00	0.00
Total	707			28.42		0.24	5.68	0.26	1.037

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 FHG Control Factors (Ver. 2.0).

Processed By: JUM

Date: March 2023

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10.3 Gas Station Vapor Recovery System Testing Requirements

Annual Testing Required. The permittee shall conduct and successfully pass Static Leak Decay testing once per year (at least 350 days between tests, but not to exceed 410 days between tests). Routine testing shall consist of at least one compliance test per year according to the test protocols approved by the ARB. The test listed above, and any other VRS specific tests required in the applicable Executive Orders, are required to be performed by the permittee. At any time, the District may require the permittee to perform any applicable ARB Test Procedure if operational VRS problems are observed. Document all failures by detailing the cause(s) and corrective action(s) taken to eliminate the failure(s) on District Form ENF-99

All Static Leak Decay tests are subject to the following requirements: (a) the combined tank ullage shall be between 20% and 80% during the test; (b) no fuel drops shall occur within 4 hours prior to the test; (c) no other Static Leak Tests shall occur within 24 hours prior to the test. The Compliance Tests must be arranged for in accordance with the applicable permit condition(s).

Maintenance and Compliance test results (including initial failures) shall be documented by using District or ARB approved reporting forms⁶ (as applicable). Document all failures by detailing the cause(s) and corrective action(s) taken to eliminate the failure(s). "Successfully passing" a test means that all test results indicate compliance initially, without replacing, adjusting or repairing any equipment, part or item of the VRS. Example: If initial testing indicates a failure, and the equipment is adjusted, retested, and then passes, this is considered a failed test and shall be noted as such in the repair records and reporting forms.

Components and/or systems failing the any required test shall not be used to dispense or receive gasoline, unless the permittee contacts the District (979-8050) to obtain Rule 505 "Breakdown" protection for the failed equipment for 24 hours. Components unable to be repaired within 24 hours must be removed from service unless a variance is obtained from the District Hearing Board. All failed equipment shall be tagged as "out of order" until repaired.

⁶ see the District's Gasoline Station Webpage at <https://www.ourair.org/gas-station/>

10.4 Gas Station Vapor Recovery System Facility Repair Log and Testing Records

The permittee shall maintain a Facility Repair Log and maintain the results of all VRS Testing Records in a folder or filing system separate from other regulatory agency documents and as noted below:

1. **Facility Repair Log:** A Repair Logs that includes the information below. District Form ENF-99⁷ shall be used. An alternative log form may be used if approved, in advance, by the District.
 - Date and time the problem was detected (e.g., component malfunction, defect, ISD Warning alarm, ISD Failure alarm, reconnection of breakaways)
 - Date and time the component was removed from service
 - Date and time the call for service was placed (including calls for service due to an ISD Warning alarm or ISD Failure alarm)
 - Date of actual service for which the component or defect was repaired or replaced (indicate if the ISD Failure alarm was “cleared”)
 - Name of the person performing the service and telephone number
 - Affiliation (company name) of the person performing the service
 - Indicate whether the service call was due to an ISD Warning alarm or ISD Failure alarm
 - Provide a short description of the service performed and list each component repaired, serviced, or removed, (include the component(s) manufacturer's (or re-manufacturer's) name and model number
 - Receipts for parts used in the repair and, if applicable, work orders, which shall include the name and signature of the person responsible for performing the repairs shall be made available to the District upon request
 - Any other information specifically required by the applicable Executive Orders
2. **Testing Records:** Records of all Maintenance and Compliance Tests, and any other VRS specific tests required in the applicable Executive Orders that include:
 - The date and start time of each test
 - The type of test (specify ARB TP number)
 - Name(s), employer (or affiliation), address and phone number of the person(s) performing the tests
 - Test data and calibration data for all equipment used
 - Date and time each test is completed and the facility owner/operator is notified of the test results. For a test that fails, a description of the reason(s) for the test failure shall also be included; and

⁷ see the District's Gasoline Station Webpage at <https://www.ourair.org/gas-station/>

- For a retest following a failed test, a description of the repairs performed prior to the retest (or a cross-reference to the Facility Repair Log above).
- Completed CARB or District-approved reporting forms

10.5 IDS Tables

PERMIT POTENTIAL TO EMIT

	NO _x	ROC	CO	SO _x	PM	PM ₁₀	PM _{2.5}
lb/day	0.00	559.56	0.00	0.00	0.00	0.00	0.00
lb/hr							
TPQ							
TPY	0.00	102.12	0.00	0.00	0.00	0.00	0.00

FACILITY POTENTIAL TO EMIT

	NO _x	ROC	CO	SO _x	PM	PM ₁₀	PM _{2.5}
lb/day	0.00	551.07	0.00	0.00	0.00	0.00	0.00
lb/hr							
TPQ							
TPY	0.00	100.56	0.00	0.00	0.00	0.00	0.00


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.

10.6 Fee Statement

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> air pollution control district SANTA BARBARA COUNTY </div> </div> <div style="text-align: right;"> FEE STATEMENT PT-70/Reeval No. 07250 - R12 FID: 01074 South Cuyama Unit (SCU) / SSID: 01073 </div> </div>												
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
000738	Oil and Gas Wellheads	A1.a	1.000	79.76	Per equipment	No	217	1.000	17,307.92	0.00	0.00	17,307.92
101050	Valves & Fittings	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
394804	3" Pig Receiver	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
393131	2,000 bbl Produced Water Tank	A6	84.000	4.57	Per 1000 gallons	No	1	1.000	383.88	0.00	0.00	383.88
393132	Fugitive Emission Components	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
000879	Machader Pit	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
000878	Pit	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101040	Pit Pump	A2	5.000	41.35	Per total rated hp	No	1	1.000	206.75	0.00	0.00	206.75
386662	Produced Water Tank	A6	84.000	4.57	Per 1000 gallons	No	1	1.000	383.88	0.00	0.00	383.88
394806	3" Strainer	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101041	Pit Pump	A2	10.000	41.35	Per total rated hp	No	1	1.000	413.50	0.00	0.00	413.50
101042	Pit Pump	A2	5.000	41.35	Per total rated hp	No	1	1.000	206.75	0.00	0.00	206.75
101044	Transfer Pump	A2	7.500	41.35	Per total rated hp	No	1	1.000	310.13	0.00	0.00	310.13
113736	Produced Water Tank (East)	A6	84.000	4.57	Per 1000 gallons	No	1	1.000	383.88	0.00	0.00	383.88
000880	Produced Water Pit	A6	102.690	4.57	Per 1000 gallons	No	1	1.000	469.29	0.00	0.00	469.29
000881	Produced Water Pit	A6	201.930	4.57	Per 1000 gallons	No	1	1.000	922.82	0.00	0.00	922.82
000882	Produced Water Pit	A6	24.230	4.57	Per 1000 gallons	No	1	1.000	110.73	0.00	0.00	110.73

000883	Produced Water Pit	A6	88.830	4.57	Per 1000 gallons	No	1	1.000	405.95	0.00	0.00	405.95
000760	Produced Water Tank (West)	A6	84.000	4.57	Per 1000 gallons	No	1	1.000	383.88	0.00	0.00	383.88
394808	Pressure Vessel	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
008302	Crude Oil Slop Tank	A6	84.000	4.57	Per 1000 gallons	No	1	1.000	383.88	0.00	0.00	383.88
101021	Gas/Liquid Separators	A1.a	1.000	79.76	Per equipment	No	3	1.000	239.28	0.00	0.00	239.28
000748	Pit	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101025	Vapor Recovery System	A2	7.500	41.35	Per total rated hp	No	1	1.000	310.13	0.00	0.00	310.13
000863	Produced Water Pits	A1.a	1.000	79.76	Per equipment	No	2	1.000	159.52	0.00	0.00	159.52
394810	Gas Meter	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101027	Gas/Liquid Separator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101026	Gas/Liquid Separators	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
394812	Fugitive Hydrocarbon Components	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101028	Gas/Liquid Separator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101029	Gas/Liquid Separators	A1.a	1.000	79.76	Per equipment	No	3	1.000	239.28	0.00	0.00	239.28
101030	Gas/Liquid Separator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101032	Gas/Liquid Separators	A1.a	1.000	79.76	Per equipment	No	3	1.000	239.28	0.00	0.00	239.28
101033	Gas/Liquid Separators	A1.a	1.000	79.76	Per equipment	No	3	1.000	239.28	0.00	0.00	239.28
391693	5,000 bbl Wash Tank	A6	210.000	4.57	Per 1000 gallons	No	1	1.000	959.70	0.00	0.00	959.70
112293	Crude Oil Tank	A6	42.000	4.57	Per 1000 gallons	No	1	1.000	191.94	0.00	0.00	191.94
391694	Fugitive Hydrocarbon Components	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101035	Gas/Liquid Separator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101036	Gas/Liquid Separators	A1.a	1.000	79.76	Per equipment	No	3	1.000	239.28	0.00	0.00	239.28

105253	LACT Unit	A2	10.500	41.35	Per total rated hp	No	1	1.000	434.18	0.00	0.00	434.18
000756	Pit	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101039	Pit Pump	A2	5.000	41.35	Per total rated hp	No	1	1.000	206.75	0.00	0.00	206.75
000612	Test Tank	A6	42.000	4.57	Per 1000 gallons	No	1	1.000	191.94	0.00	0.00	191.94
101037	Vapor Recovery System	A2	5.000	41.35	Per total rated hp	No	1	1.000	206.75	0.00	0.00	206.75
113667	Wash Tank	A6	63.000	4.57	Per 1000 gallons	No	1	1.000	287.91	0.00	0.00	287.91
000872	Produced Water Pits	A1.a	1.000	79.76	Per equipment	No	2	1.000	159.52	0.00	0.00	159.52
104984	Gas/Liquid Separators	A1.a	1.000	79.76	Per equipment	No	3	1.000	239.28	0.00	0.00	239.28
101007	Gas/Liquid Separators	A1.a	1.000	79.76	Per equipment	No	2	1.000	159.52	0.00	0.00	159.52
105251	Separator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101008	Gas/Liquid Separators	A1.a	1.000	79.76	Per equipment	No	2	1.000	159.52	0.00	0.00	159.52
101010	Gas/Liquid Separator	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101009	Gas/Liquid Separators	A1.a	1.000	79.76	Per equipment	No	4	1.000	319.04	0.00	0.00	319.04
000596	LACT Tank	A6	42.000	4.57	Per 1000 gallons	No	1	1.000	191.94	0.00	0.00	191.94
000763	LACT Tank	A6	42.000	4.57	Per 1000 gallons	No	1	1.000	191.94	0.00	0.00	191.94
101013	LACT Unit	A2	10.000	41.35	Per total rated hp	No	1	1.000	413.50	0.00	0.00	413.50
000745	Pit	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
101011	Pit Pump	A2	5.000	41.35	Per total rated hp	No	1	1.000	206.75	0.00	0.00	206.75
101012	Transfer Pump	A2	3.000	41.35	Per total rated hp	No	1	1.000	124.05	0.00	0.00	124.05
101014	Vapor Recovery System	A2	25.000	41.35	Per total rated hp	No	1	1.000	1,033.75	0.00	0.00	1,033.75
105087	Wash Tank	A6	63.000	4.57	Per 1000 gallons	No	1	1.000	287.91	0.00	0.00	287.91
105964	Wash Tank	A6	52.500	4.57	Per 1000 gallons	No	1	1.000	239.93	0.00	0.00	239.93

109943	Wash Tank	A6	210.000	4.57	Per 1000 gallons	No	1	1.000	959.70	0.00	0.00	959.70
114977	Wash Tank	A6	420.000	4.57	Per 1000 gallons	No	1	1.000	1,919.40	0.00	0.00	1,919.40
000860	Produced Water Pits	A1.a	1.000	79.76	Per equipment	No	2	1.000	159.52	0.00	0.00	159.52
101015	Gas/Liquid Separator	A1.a	1.000	79.76	Per equipment	No	2	1.000	159.52	0.00	0.00	159.52
000746	Pit	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
000861	Pits	A1.a	1.000	79.76	Per equipment	No	2	1.000	159.52	0.00	0.00	159.52
000617	Stock Tank	A6	42.000	4.57	Per 1000 gallons	No	1	1.000	191.94	0.00	0.00	191.94
000766	Stock Tank	A6	42.000	4.57	Per 1000 gallons	No	1	1.000	191.94	0.00	0.00	191.94
101018	Vapor Recovery System	A2	5.000	41.35	Per total rated hp	No	1	1.000	206.75	0.00	0.00	206.75
101019	Gas/Liquid Separators	A1.a	1.000	79.76	Per equipment	No	2	1.000	159.52	0.00	0.00	159.52
101020	Gas/Liquid Separators	A1.a	1.000	79.76	Per equipment	No	1	1.000	79.76	0.00	0.00	79.76
394935	Compressor	A2	200.000	41.35	Per total rated hp	Max	1	0.550	4,403.33	0.00	0.00	4,403.33
394936	Gas Scrubber Vessels	A1.a	1.000	79.76	Per equipment	No	3	0.550	131.60	0.00	0.00	131.60
394937	Gas Coolers	A1.a	1.000	79.76	Per equipment	No	3	0.550	131.60	0.00	0.00	131.60
394938	Fugitive Components	A1.a	1.000	79.76	Per equipment	No	1	0.550	43.87	0.00	0.00	43.87
	Device Fee Sub-Totals =								\$40,718.04	\$0.00	\$0.00	
	Device Fee Total =											\$40,718.04

Permit Fee

Fee Based on Devices

\$40,718.04

Fee Statement Grand Total = \$40,718

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.

10.7 Equipment List

PERMIT EQUIPMENT LIST - TABLE A

PT-70/Reeval 07250 R12 / FID: 01074 South Cuyama Unit (SCU) / SSID: 01073

A PERMITTED EQUIPMENT

1 O&G Wells, Cellars and Unassociated Valves & Flanges

1.1 Oil and Gas Wellheads

<i>Device ID #</i>	000738	<i>Device Name</i>	Oil and Gas Wellheads
<i>Rated Heat Input</i>		<i>Physical Size</i>	217.00 Total Wells
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Well count based on data from the California DOG&GR website.		
<i>Description</i>			

1.2 Valves & Fittings

<i>Device ID #</i>	101050	<i>Device Name</i>	Valves & Fittings
<i>Rated Heat Input</i>		<i>Physical Size</i>	217.00 Active Wells
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Valves, fittings and flanges, not directly associated with other permitted		
<i>Description</i>	equipment items, which emit fugitive hydrocarbon emissions. KVB-based. No clp counts.		

1.3 Well Cellars

<i>Device ID #</i>	000740	<i>Device Name</i>	Well Cellars
<i>Rated Heat Input</i>		<i>Physical Size</i>	5526.00 Square Feet Cellar Area
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Surface area based on 177 wells with 6 foot diameters minus 2 wells with 8 foot diameters.		

2 3" Pig Receiver

<i>Device ID #</i>	394804	<i>Device Name</i>	3" Pig Receiver
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>	Argus	<i>Operator ID</i>	
<i>Model</i>	CL300	<i>Serial Number</i>	
<i>Location Note</i>			
<i>Device Description</i>			

3 Machader Produced Water Plant

3.1 2,000 bbl Produced Water Tank

<i>Device ID #</i>	393131	<i>Device Name</i>	2,000 bbl Produced Water Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	Machader Produced Water Tank Farm		
<i>Device Description</i>	29.7 ft. dia. x 16.0 ft. ht. In tertiary service.		

3.2 Fugitive Emission Components

<i>Device ID #</i>	393132	<i>Device Name</i>	Fugitive Emission Components
<i>Rated Heat Input</i>		<i>Physical Size</i>	67 clps
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>			
<i>Device</i>	2,000 bbl Produced Water Tank clps.		
<i>Description</i>			

3.3 Machader Pit

<i>Device ID #</i>	000879	<i>Device Name</i>	Machader Pit
<i>Rated Heat Input</i>		<i>Physical Size</i>	3000.00 Square Feet Area
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	This is an emergency overflow containment pit connected by pipeline to Pit		
<i>Description</i>	000878.		

3.4 Pit

<i>Device ID #</i>	000878	<i>Device Name</i>	Pit
<i>Rated Heat Input</i>		<i>Physical Size</i>	150.00 Square Feet Area
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Concrete construction.		
<i>Description</i>			

3.5 Pit Pump

<i>Device ID #</i>	101040	<i>Device Name</i>	Pit Pump
<i>Rated Heat Input</i>		<i>Physical Size</i>	5.00 Horsepower (Electric Motor)
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Driven by 5 hp electric motor.		
<i>Description</i>			

3.6 Produced Water Tank

<i>Device ID #</i>	386662	<i>Device Name</i>	Produced Water Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	2000.00 BBL
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit - Machader Produced Water Plant		
<i>Device</i>	Produced Water Tank Dimensions: 16.0' ht. x 29.7' dia. Unheated, not connected		
<i>Description</i>	to the vapor recovery system.		

4 3" Strainer

<i>Device ID #</i>	394806	<i>Device Name</i>	3" Strainer
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>	Titan	<i>Operator ID</i>	
<i>Model</i>	CL300	<i>Serial Number</i>	
<i>Location Note</i>			
<i>Device</i>			
<i>Description</i>			

5 Perkins Produced Water Plant

5.1 Pit Pump

<i>Device ID #</i>	101041	<i>Device Name</i>	Pit Pump
<i>Rated Heat Input</i>		<i>Physical Size</i>	10.00 Horsepower (Electric Motor)
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Powered by 10 hp electric motor.		
<i>Description</i>			

5.2 Pit Pump

<i>Device ID #</i>	101042	<i>Device Name</i>	Pit Pump
<i>Rated Heat Input</i>		<i>Physical Size</i>	5.00 Horsepower (Electric Motor)
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Powered by 5 hp electric motor.		
<i>Description</i>			

5.3 Transfer Pump

<i>Device ID #</i>	101044	<i>Device Name</i>	Transfer Pump
<i>Rated Heat Input</i>		<i>Physical Size</i>	7.50 Horsepower (Electric Motor)
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Powered by 7.5 hp electric motor.		

5.4 Produced Water Tank (East)

<i>Device ID #</i>	113736	<i>Device Name</i>	Produced Water Tank (East)
<i>Rated Heat Input</i>		<i>Physical Size</i>	2000.00 BBL
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	Perkins Wastewater Plant, South Cuyama Unit		
<i>Device Description</i>	29.7 feet in diameter by 16 feet high, unheated, not connected to a vapor recovery system.		

5.5 Produced Water Charge Pump

<i>Device ID #</i>	101043	<i>Device Name</i>	Produced Water Charge Pump
<i>Rated Heat Input</i>		<i>Physical Size</i>	10.00 Horsepower (Electric Motor)
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Powered by 10 hp electric motor.		

5.6 Produced Water Pit

<i>Device ID #</i>	000880	<i>Device Name</i>	Produced Water Pit
<i>Rated Heat Input</i>		<i>Physical Size</i>	1980.00 Square Feet Pit Area
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Earthen construction, gunite lined, 6 feet deep, 2,115 bbl capacity.		

5.7 Produced Water Pit

<i>Device ID #</i>	000881	<i>Device Name</i>	Produced Water Pit
<i>Rated Heat Input</i>		<i>Physical Size</i>	4500.00 Square Feet Pit Area
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Earthen construction, gunite lined, 6 feet deep, 4,808 bbl capacity.		

5.8 Produced Water Pit

<i>Device ID #</i>	000882	<i>Device Name</i>	Produced Water Pit
<i>Rated Heat Input</i>		<i>Physical Size</i>	540.00 Square Feet Pit Area
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Earthen construction, gunite lined, 6 feet deep, 577 bbl capacity.		

5.9 Produced Water Pit

<i>Device ID #</i>	000883	<i>Device Name</i>	Produced Water Pit
<i>Rated Heat Input</i>		<i>Physical Size</i>	1800.00 Square Feet Pit Area
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Earthen construction, gunite lined, 6 feet deep, 2,115 bbl capacity.		

5.10 Produced Water Tank (West)

<i>Device ID #</i>	000760	<i>Device Name</i>	Produced Water Tank (West)
<i>Rated Heat Input</i>		<i>Physical Size</i>	2000.00 BBL
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	29.7 feet in diameter by 16 feet high, unheated, not connected to a vapor recovery		
<i>Description</i>	system.		

6 Pressure Vessel

<i>Device ID #</i>	394808	<i>Device Name</i>	Pressure Vessel
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>			
<i>Device</i>	Slug Catcher: 4.0' dia. x 15.0' ht/		
<i>Description</i>			

7 Tank Farm #10

7.1 Crude Oil Slop Tank

<i>Device ID #</i>	008302	<i>Device Name</i>	Crude Oil Slop Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	2000.00 BBL
<i>Manufacturer</i>		<i>Operator ID</i>	30359
<i>Model</i>		<i>Serial Number</i>	30359
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Diameter of 29.7 feet and a height of 16 feet, located at tank farm #10, vented to a		
<i>Description</i>	vapor recovery system		

7.2 Gas/Liquid Separators

<i>Device ID #</i>	101021	<i>Device Name</i>	Gas/Liquid Separators
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Double ball trap type, each 10 feet high by 3 feet 2 inches in diameter, connected		
<i>Description</i>	to the gas gathering system.		

7.3 Pit

<i>Device ID #</i>	000748	<i>Device Name</i>	Pit
<i>Rated Heat Input</i>		<i>Physical Size</i>	99.00 Square Feet Area
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Concrete lined, with a combined surface area of 99 SF.		
<i>Description</i>			

7.4 Vapor Recovery System

<i>Device ID #</i>	101025	<i>Device Name</i>	Vapor Recovery System
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Equipped with a 7.5 hp Ingersoll-Rand compressor servicing all the tanks at Tank		
<i>Description</i>	Farm 10 with a 95% vapor recovery efficiency at each recovery point.		

7.5 Produced Water Pits

<i>Device ID #</i>	000863	<i>Device Name</i>	Produced Water Pits
<i>Rated Heat Input</i>		<i>Physical Size</i>	9.00 Square Feet Area
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Two concrete lined, each with a surface area of 9 SF.		
<i>Description</i>			

8 Gas Meter

<i>Device ID #</i>	394810	<i>Device Name</i>	Gas Meter
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>			
<i>Device</i>			
<i>Description</i>			

9 Tank Farm #12

9.1 Gas/Liquid Separator

<i>Device ID #</i>	101027	<i>Device Name</i>	Gas/Liquid Separator
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Vertical, 10 feet high by 3 feet in diameter, connected to the gas gathering system.		
<i>Description</i>			

9.2 Gas/Liquid Separators

<i>Device ID #</i>	101026	<i>Device Name</i>	Gas/Liquid Separators
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Double ball trap type, 10 feet high by 3 feet 2 inches in diameter, connected to the		
<i>Description</i>	gas gathering system.		

10 Fugitive Hydrocarbon Components

<i>Device ID #</i>	394812	<i>Device Name</i>	Fugitive Hydrocarbon Components
<i>Rated Heat Input</i>		<i>Physical Size</i>	420 clps (PTO 14751)
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>			
<i>Device</i>			
<i>Description</i>			

11 Tank Farm #13

11.1 Gas/Liquid Separator

<i>Device ID #</i>	101028	<i>Device Name</i>	Gas/Liquid Separator
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Spherical, 60 inches in diameter, connected to the gas gathering system.		
<i>Description</i>			

11.2 Gas/Liquid Separators

<i>Device ID #</i>	101029	<i>Device Name</i>	Gas/Liquid Separators
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Vertical, each 10 feet long by 36 inches in diameter, connected to the gas		
<i>Description</i>	gathering system.		

12 Tank Farm #14

12.1 Gas/Liquid Separator

<i>Device ID #</i>	101030	<i>Device Name</i>	Gas/Liquid Separator
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>	Superior Tank Co.	<i>Operator ID</i>	
<i>Model</i>	41 D 600	<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Double-ball trap type, 10 feet high by 42 inches in diameter, connected to the gas		
<i>Description</i>	gathering system.		

13 Tank Farm #16

13.1 Gas/Liquid Separators

<i>Device ID #</i>	101032	<i>Device Name</i>	Gas/Liquid Separators
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>	Superior Tank Co.	<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Double ball trap type, each 16 feet high by 42 inches in diameter, connected to		
<i>Description</i>	gas gathering system.		

14 Tank Farm #17

14.1 Gas/Liquid Separators

<i>Device ID #</i>	101033	<i>Device Name</i>	Gas/Liquid Separators
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>	Superior Tank Co.	<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Double ball trap type, each 10 feet high by 3 feet 2 inches in diameter, connected		
<i>Description</i>	to the gas gathering system.		

15 Tank Farm #18

15.1 5,000 bbl Wash Tank

<i>Device ID #</i>	391693	<i>Device Name</i>	5,000 bbl Wash Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	Tank Farm #18		
<i>Device</i>	38.6' dia. x 24' ht. Connected to VR		
<i>Description</i>			

15.2 Crude Oil Tank

<i>Device ID #</i>	112293	<i>Device Name</i>	Crude Oil Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	1000.00 BBL
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit, Tank Farm #18		
<i>Device</i>	21.5 feet in diameter by 16 feet high, connected to the vapor recovery system.		
<i>Description</i>	Color: Tan		

15.3 Fugitive Hydrocarbon Components

<i>Device ID #</i>	391694	<i>Device Name</i>	Fugitive Hydrocarbon Components
<i>Rated Heat Input</i>		<i>Physical Size</i>	246 clps
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>			
<i>Device</i>	Tank Farm #18 5,000 bbl Wash Tank clps		
<i>Description</i>			

15.4 Gas/Liquid Separator

<i>Device ID #</i>	101035	<i>Device Name</i>	Gas/Liquid Separator
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>	Superior Tank Co.	<i>Operator ID</i>	
<i>Model</i>	48	<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Spherical, 48 inches in diameter, connected to the gas gathering system.		
<i>Description</i>			

15.5 Gas/Liquid Separators

<i>Device ID #</i>	101036	<i>Device Name</i>	Gas/Liquid Separators
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>	American Pipe & Steel Co.	<i>Operator ID</i>	
<i>Model</i>	36-103	<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Vertical, each 14 feet high by 3 feet in diameter, connected to the gas gathering system.		
<i>Description</i>			

15.6 LACT Unit

<i>Device ID #</i>	105253	<i>Device Name</i>	LACT Unit
<i>Rated Heat Input</i>		<i>Physical Size</i>	10.50 Horsepower (Electric Motor)
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	LACT unit served by two electric motor driven pumps: a 7.5 Horsepower Charge Pump and a 3.0 Horsepower Sample Pump		
<i>Description</i>			

15.7 Pit

<i>Device ID #</i>	000756	<i>Device Name</i>	Pit
<i>Rated Heat Input</i>		<i>Physical Size</i>	117.00 Square Feet Area
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	concrete lined, surface area 117 ft2.		
<i>Description</i>			

15.8 Pit Pump

<i>Device ID #</i>	101039	<i>Device Name</i>	Pit Pump
<i>Rated Heat Input</i>		<i>Physical Size</i>	5.00 Horsepower (Electric Motor)
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Powered by 5 hp electric motor.		
<i>Description</i>			

15.9 Test Tank

<i>Device ID #</i>	000612	<i>Device Name</i>	Test Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	1000.00 BBL
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	1202
<i>Location Note</i>	South Cuyama Unit, Tank Farm #18		
<i>Device</i>	21.5 feet in diameter by 16 feet high, unheated, connected to the vapor recovery system.		
<i>Description</i>	Color: Tan		

15.10 Vapor Recovery System

<i>Device ID #</i>	101037	<i>Device Name</i>	Vapor Recovery System
<i>Rated Heat Input</i>		<i>Physical Size</i>	5.00 Horsepower (Electric Motor)
<i>Manufacturer Model</i>	Ingersoll-Rand 67X7	<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Vapor recovered by a compressor servicing the wash tank, the LACT tank, the stock tank and test tank at TF#18 with a 95% control efficiency. Powered by 5 hp electric motor.		

15.11 Wash Tank

<i>Device ID #</i>	113667	<i>Device Name</i>	Wash Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	1500.00 BBL
<i>Manufacturer Model</i>	Columbian TecTank	<i>Operator ID Serial Number</i>	
<i>Location Note</i>	Tank Farm 18, SCU		
<i>Device Description</i>	21.5 feet in diameter by 24 feet high, unheated, connected to the vapor recovery system.		

15.12 Produced Water Pits

<i>Device ID #</i>	000872	<i>Device Name</i>	Produced Water Pits
<i>Rated Heat Input</i>		<i>Physical Size</i>	9.00 Square Feet Area
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Concrete lined, each with a surface area 9 SF.		

16 Tank Farm #3**16.1 Gas/Liquid Separators**

<i>Device ID #</i>	104984	<i>Device Name</i>	Gas/Liquid Separators
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Double ball traps, three (3), each 10 feet high by 3 feet 2 inches in diameter, connected to the gas gathering system.		

17 Tank Farm #4

17.1 Gas/Liquid Separators

<i>Device ID #</i>	101007	<i>Device Name</i>	Gas/Liquid Separators
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Double ball traps, two (2), each 10 feet high by 3 feet 2 inches in diameter,		
<i>Description</i>	connected to the gas gathering system.		

17.2 Separator

<i>Device ID #</i>	105251	<i>Device Name</i>	Separator
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Vertical, 10 feet high by 24 inches in diameter, connected to the gas gathering		
<i>Description</i>	system. This separator receives the NGL production from Gas Plant 10. This separator sends the NGL liquids to tank farm 6 where they are added into the produced crude oil.		

18 Tank Farm #5

18.1 Gas/Liquid Separators

<i>Device ID #</i>	101008	<i>Device Name</i>	Gas/Liquid Separators
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Vertical, two (2), each 14 feet high by 3 feet in diameter, connected to the gas		
<i>Description</i>	gathering system.		

19 Tank Farm #6

19.1 Gas/Liquid Separator

<i>Device ID #</i>	101010	<i>Device Name</i>	Gas/Liquid Separator
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>	Superior Tank Co.	<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Spherical, 48 inches in diameter, connected to the gas gathering system.		
<i>Description</i>			

19.2 Gas/Liquid Separators

<i>Device ID #</i>	101009	<i>Device Name</i>	Gas/Liquid Separators
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>	American Pipe & Steel Co.	<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Four (4), vertical, each 14 feet high by 3 feet in diameter, connected to the gas gathering system.		
<i>Description</i>			

19.3 LACT Tank

<i>Device ID #</i>	000596	<i>Device Name</i>	LACT Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	1000.00 BBL
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	1260
<i>Location Note</i>	South Cuyama Unit, Tank Farm #6		
<i>Device</i>	21.5 feet in diameter by 16 feet high, unheated, connected to a vapor recovery system.		
<i>Description</i>			

19.4 LACT Tank

<i>Device ID #</i>	000763	<i>Device Name</i>	LACT Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	1000.00 BBL
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	R30352
<i>Location Note</i>	South Cuyama Unit, Tank Farm #6		
<i>Device</i>	21.5 feet in diameter by 16 feet high, unheated, connected to a vapor recovery system.		
<i>Description</i>			

19.5 LACT Unit

<i>Device ID #</i>	101013	<i>Device Name</i>	LACT Unit
<i>Rated Heat Input</i>		<i>Physical Size</i>	10.00 Horsepower (Electric Motor)
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Equipped with a Goulds centrifugal charge pump.		

19.6 Pit

<i>Device ID #</i>	000745	<i>Device Name</i>	Pit
<i>Rated Heat Input</i>		<i>Physical Size</i>	126.00 Square Feet Pit Area
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Concrete lined, with a surface area of 126 SF.		

19.7 Pit Pump

<i>Device ID #</i>	101011	<i>Device Name</i>	Pit Pump
<i>Rated Heat Input</i>		<i>Physical Size</i>	5.00 Horsepower (Electric Motor)
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Located at Tank Farm #6.		

19.8 Transfer Pump

<i>Device ID #</i>	101012	<i>Device Name</i>	Transfer Pump
<i>Rated Heat Input</i>		<i>Physical Size</i>	3.00 Horsepower (Electric Motor)
<i>Manufacturer Model</i>	Roper	<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>			

19.9 Vapor Recovery System

<i>Device ID #</i>	101014	<i>Device Name</i>	Vapor Recovery System
<i>Rated Heat Input</i>		<i>Physical Size</i>	25.00 Horsepower (Electric Motor)
<i>Manufacturer Model</i>	Ingersoll-Rand ES-1GAS	<i>Operator ID Serial Number</i>	85334
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Vapor recovered by a compressor servicing the Wash Tank, Test Tank and LACT Tanks at TF#6 efficiency of 95% by weight. Powered by 25 hp electric motor.		

19.10 Wash Tank

<i>Device ID #</i>	105087	<i>Device Name</i>	Wash Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	1500.00 BBL
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit, Tank Farm #6		
<i>Device Description</i>	The tank is 21.5 feet in diameter by 24 feet high, unheated, connected to a vapor recovery system. Color: tan.		

19.11 Wash Tank

<i>Device ID #</i>	105964	<i>Device Name</i>	Wash Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	1250.00 BBL
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit, Tank Farm #6		
<i>Device Description</i>	21.5 feet in diameter by 20 feet high, unheated, connected to a vapor recovery system.		

19.12 Wash Tank

<i>Device ID #</i>	109943	<i>Device Name</i>	Wash Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	5000.00 BBL
<i>Manufacturer</i>	Superior Tank Company	<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit, West side of the 1,000 bbl LACT tank at Perkins Tank Battery #6.		
<i>Device Description</i>	38.6 feet in diameter by 24 feet high, connected to the vapor recovery system.		

19.13 Wash Tank

<i>Device ID #</i>	114977	<i>Device Name</i>	Wash Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	10000.00 BBL
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	One (1) - Located west of the existing 5,000 bbl wash tank at Tank Battery #6. Connected to vapor recovery.		

19.14 Produced Water Pits

<i>Device ID #</i>	000860	<i>Device Name</i>	Produced Water Pits
<i>Rated Heat Input</i>		<i>Physical Size</i>	18.00 Square Feet Area
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Concrete lined, each with a surface area of 9 SF.		

20 Tank Farm #7 (Hibberd)**20.1 Gas/Liquid Separator**

<i>Device ID #</i>	101015	<i>Device Name</i>	Gas/Liquid Separator
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Horizontal, 12 feet long by 2.5 feet in diameter, connected to the gas gathering system.		

20.2 Pit

<i>Device ID #</i>	000746	<i>Device Name</i>	Pit
<i>Rated Heat Input</i>		<i>Physical Size</i>	90.00 Square Feet Area
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Concrete lined, with a combined surface area of 90 SF.		
<i>Description</i>			

20.3 Pits

<i>Device ID #</i>	000861	<i>Device Name</i>	Pits
<i>Rated Heat Input</i>		<i>Physical Size</i>	9.00 Square Feet Area
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	Concrete lined, each with a surface area of 9 SF.		
<i>Description</i>			

20.4 Stock Tank

<i>Device ID #</i>	000617	<i>Device Name</i>	Stock Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	1000.00 BBL
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	1372
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	21.5 feet in diameter by 16 feet high, unheated, connected to a vapor recovery		
<i>Description</i>	system.		

20.5 Stock Tank

<i>Device ID #</i>	000766	<i>Device Name</i>	Stock Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	1000.00 BBL
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	1371
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>	21.5 feet in diameter by 16 feet high, unheated, connected to a vapor recovery		
<i>Description</i>	system.		

20.6 Vapor Recovery System

<i>Device ID #</i>	101018	<i>Device Name</i>	Vapor Recovery System
<i>Rated Heat Input</i>		<i>Physical Size</i>	5.00 Horsepower (Electric Motor)
<i>Manufacturer Model</i>	Ingersoll-Rand	<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Formerly served Tank Farm #7 (Hibberd).		

21 Tank Farm #8

21.1 Gas/Liquid Separators

<i>Device ID #</i>	101019	<i>Device Name</i>	Gas/Liquid Separators
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Vertical, each 14 feet high by 3 feet in diameter, connected to the gas gathering system.		

21.2 Gas/Liquid Separators

<i>Device ID #</i>	101020	<i>Device Name</i>	Gas/Liquid Separators
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		
<i>Device Description</i>	Double ball trap type, 10 feet high by 3 feet 2 inches in diameter, connected to the gas gathering system.		

22 Gas Station

23 Misc Solvent Use

<i>Device ID #</i>	104998	<i>Device Name</i>	Misc Solvent Use
<i>Rated Heat Input</i>		<i>Physical Size</i>	5000.00 Gallons
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit		

*Device
Description*

24 Compressor

<i>Device ID #</i>	394935	<i>Device Name</i>	Compressor
<i>Rated Heat Input</i>		<i>Physical Size</i>	200.00 Brake Horsepower
<i>Manufacturer</i>	Ariel	<i>Operator ID</i>	
<i>Model</i>	JGR/2	<i>Serial Number</i>	F-06023
<i>Location Note</i>	Located outside Gas Plant 10. Permitted under ATC 15528.		
<i>Device Description</i>	Reciprocating, 694 scf/minute, skid mounted (10' W x 28' L), boosts gas pressure to injection well		

25 Gas Scrubber Vessels

<i>Device ID #</i>	394936	<i>Device Name</i>	Gas Scrubber Vessels
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	Located outside Gas Plant 10. Permitted under ATC 15528.		
<i>Device Description</i>	Three scrubber vessels, removes moisture, one inlet scrubber and two interstage scrubbers, dimension: 24" W x 72" H		

26 Gas Coolers

<i>Device ID #</i>	394937	<i>Device Name</i>	Gas Coolers
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	Located outside Gas Plant 10. Permitted under ATC 15528.		
<i>Device Description</i>	Three coolers, one for each stage of compression, horizontal		

27 Fugitive Components

<i>Device ID #</i>	394938	<i>Device Name</i>	Fugitive Components
<i>Rated Heat Input</i>		<i>Physical Size</i>	707 clps
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	Located outside Gas Plant 10. Permitted under ATC 15528.		
<i>Device Description</i>			

B EXEMPT EQUIPMENT

1 Abrasive Blasting Unit

<i>Device ID #</i>	101053	<i>Device Name</i>	Abrasive Blasting Unit
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer Model</i>		<i>Operator ID</i>	
<i>Part 70 Insig?</i>	No	<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit	<i>District Rule Exemption:</i>	
<i>Device Description</i>		202.H.3 Portable Abrasive Blast Equipment	

2 Storage of Drums of Lubrication Oils

<i>Device ID #</i>	101054	<i>Device Name</i>	Storage of Drums of Lubrication Oils
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer Model</i>		<i>Operator ID</i>	
<i>Part 70 Insig?</i>	No	<i>Serial Number</i>	
<i>Location Note</i>	South Cuyama Unit	<i>District Rule Exemption:</i>	
<i>Device Description</i>		202.V.3 Storage Of Lubricating Oils	

3 Painting and Solvent Use for Maintenance

<i>Device ID #</i>	101058	<i>Device Name</i>	Painting and Solvent Use for Maintenance
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer Model</i>		<i>Operator ID</i>	
<i>Part 70 Insig?</i>	No	<i>Serial Number</i>	
		<i>District Rule Exemption:</i>	

202.U.3 Equipment Used In Wipe Cleaning
Operations (<55 Gal/Yr At T He Source)

Location Note South Cuyama Unit
Device
Description

4 Storage of Oils with IBP 300° F or Greater

<i>Device ID #</i>	101057	<i>Device Name</i>	Storage of Oils with IBP 300° F or Greater
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Part 70 Insig?</i>	No	<i>District Rule Exemption:</i> 202.V.1 Unheat Storage Of Lqd Org Mtls W/Bp >=300 @ 1 Atm	
<i>Location Note</i>	South Cuyama Unit		
<i>Device</i>			
<i>Description</i>			

C OFF PERMIT EQUIPMENT

D TRANSFERED EQUIPMENT

1 3" Pig Receiver

<i>Device ID #</i>	394804	<i>Device Name</i>	3" Pig Receiver
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>	Argus	<i>Operator ID</i>	
<i>Model</i>	CL300	<i>Serial Number</i>	
<i>Depermitted</i>		<i>Facility Transfer</i>	
<i>Device</i>	Formerly Device #388921. Transferred on 6/6/2020.		
<i>Description</i>			

2 3" Strainer

<i>Device ID #</i>	394806	<i>Device Name</i>	3" Strainer
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>	Titan	<i>Operator ID</i>	

<i>Model</i>	CL300	<i>Serial Number</i>
<i>Depermitted</i>		<i>Facility Transfer</i>
<i>Device</i>	Formerly Device #388923. Transferred on 6/6/2020.	
<i>Description</i>		

3 Pressure Vessel

<i>Device ID #</i>	394808	<i>Device Name</i>	Pressure Vessel
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Depermitted</i>		<i>Facility Transfer</i>	
<i>Device</i>	Formerly Device #388924. Transferred on 6/6/2020.		
<i>Description</i>			

4 Gas Meter

<i>Device ID #</i>	394810	<i>Device Name</i>	Gas Meter
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Depermitted</i>		<i>Facility Transfer</i>	
<i>Device</i>	Formerly Device #388925. Transferred on 6/6/2020.		
<i>Description</i>			

5 Fugitive Hydrocarbon Components

<i>Device ID #</i>	394812	<i>Device Name</i>	Fugitive Hydrocarbon Components
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Depermitted</i>		<i>Facility Transfer</i>	
<i>Device</i>	Formerly Device #388927. Transferred on 6/6/2020.		
<i>Description</i>			