air pollution control district
SANTA BARBARA COUNTY

DISTRICT PERMIT to OPERATE No. 7996-R13

CHEVRON CARPINTERIA GAS PLANT

5675 CARPINTERIA AVENUE
CARPINTERIA, CA

OPERATOR

Chevron U.S.A., Inc.

OWNERSHIP

Chevron U.S.A., Inc.

Santa Barbara County
Air Pollution Control District

June 2024

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ABBREVIATIONS/ACRONYMS

AP-42	USEPA's *Compilation of Emission Factors*
API	American Petroleum Institute
ASTM	American Society for Testing Materials
BACT	Best Available Control Technology
bpd	barrels per day (1 barrel = 42 gallons)
CAAA	Clean Air Act Amendments
CAM	compliance assurance monitoring
CEMS	continuous emissions monitoring
Clp	component leak path
District	Santa Barbara County Air Pollution Control District
dscf	dry standard cubic foot
EU	emission unit
°F	degree Fahrenheit
gal	gallon
gr	grain
HAP	hazardous air pollutant (as defined by CAAA, Section 112(b))
H_2S	hydrogen sulfide
I&M	inspection & maintenance
k	kilo (thousand)
l	liter
lb	pound
lbs/day	pounds per day
lbs/hr	pounds per hour
LACT	Lease Automatic Custody Transfer
LPG	liquid petroleum gas
M	mega (million)
MACT	Maximum Achievable Control Technology
MM	million
MW	molecular weight
NG	natural gas
NSPS	New Source Performance Standards
O2	oxygen
OCS	outer continental shelf
PM	particulate matter
$PM_{2.5}$	particulate matter less than 2.5 mm in size
PM_{10}	particulate matter less than 10 mm in size
ppm (vd or w)	parts per million (volume dry or weight)
psia	pounds per square inch absolute
psig	pounds per square inch gauge
PRD	pressure relief device
PTO	Permit to Operate
RACT	Reasonably Available Control Technology
ROC	reactive organic compounds, same as "VOC" as used in this permit
RVP	Reid vapor pressure
scf	standard cubic foot
scfd (or scfm)	standard cubic feet per day (or per minute)
SIP	State Implementation Plan
STP	standard temperature (60°F) and pressure (29.92 inches of mercury)
THC	Total hydrocarbons
tpy, TPY	tons per year
TVP	true vapor pressure
USEPA	United States Environmental Protection Agency
VE	visible emissions

VOC	volatile organic compounds, also known as “ROC” throughout California
VRS	vapor recovery system

1.0 Introduction

1.1 The Santa Barbara County Air Pollution Control District (District) is responsible for implementing all applicable federal, state and local air pollution requirements that affect any stationary source of air pollution in Santa Barbara County. State regulations can be found in the California Health & Safety Code, Division 26, and Section 39000 et seq. and in the District's Rules and Regulations. Federal requirements include regulations listed in the Code of Federal Regulations: 40 CFR Parts 50, 51, 52, 55, 61, 63, 68, 70 and 82. Santa Barbara County is designated as a non-attainment area for the state Ozone and PM_{10} ambient air quality standards.

The Carpinteria Gas Plant was formerly a Part 70 source, however, much of the equipment at the plant was depermitted resulting in a reduction in stationary source emission totals below the Part 70 100 tons/year threshold, therefore this facility is no longer a Part 70 source. Permit application Permit to Operate 7996-04 was submitted in July 2018 to remove the Part 70 elements from PTO 7996-R10. This PTO is the triennial reevaluation of the Permit to Operate and contains an updated rule review and emission calculations

1.2 Facility Overview

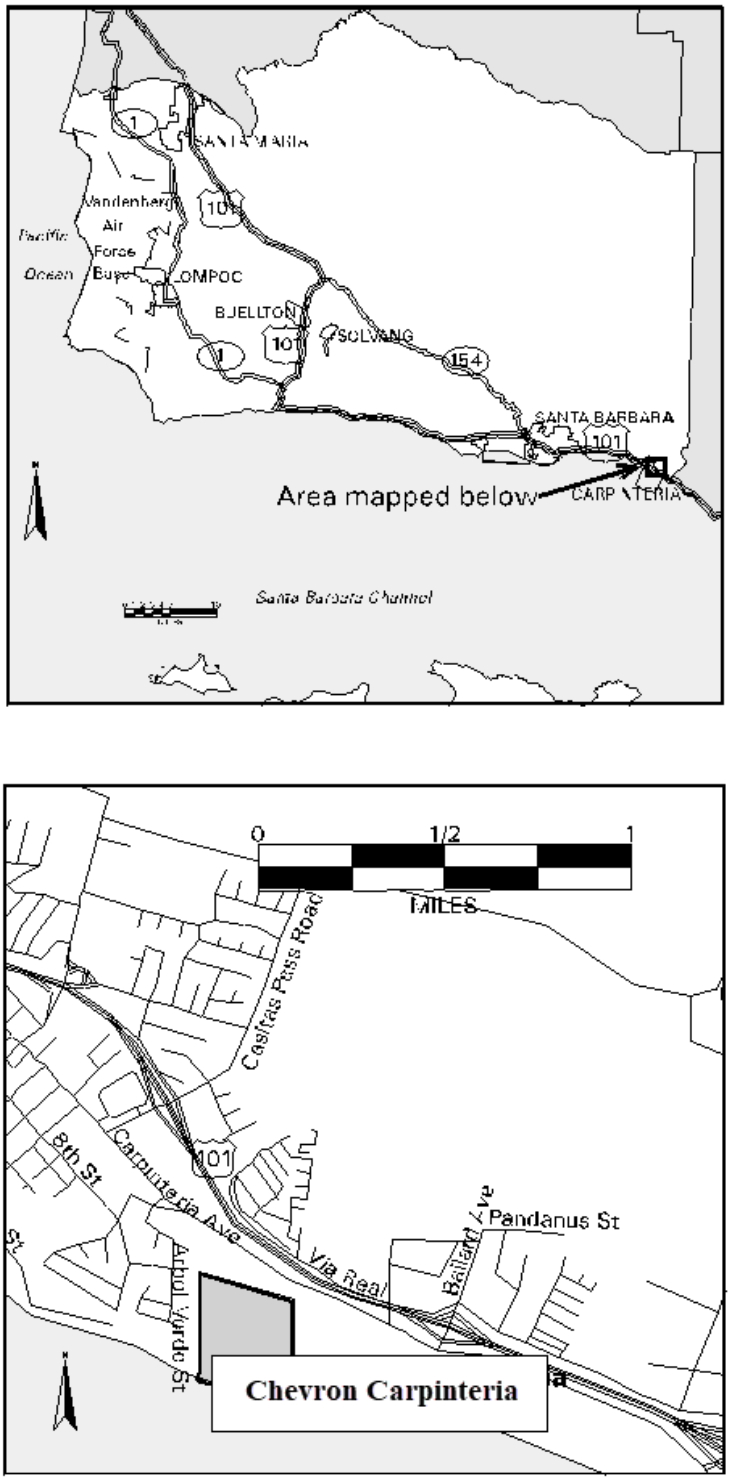
1.2.1 Chevron U.S.A., Inc. (Chevron) is the sole owner and operator of the Carpinteria Gas Plant located in the city of Carpinteria approximately 12 miles southeast of Santa Barbara. For District regulatory purposes, the facility location is in the Southern Zone[1] of Santa Barbara County. Figure 1.1 shows the relative location of the facility within the county.

The Carpinteria Gas Plant was constructed prior to 1970 and is a part of the Chevron Carpinteria Stationary Source (SSID # 0027). The facility is currently being decommissioned and consists of the crane on the Casitas pier as the only emission unit at this facility.

There are no active oil and gas production operations occurring at the plant and prior plugging and abandonment activities for the wells on Platforms Gail and Grace are now complete. Prior to the cessation of oil and gas production, oil and water was produced solely from OCS Platforms Gail and Grace and received via a 12"/10" pipeline from Platform Grace at the Carpinteria Gas Plant. PUC quality gas was purchased from the SoCal Gas Company and delivered to Platform Grace and Platform Gail via a 10" pipeline from the Carpinteria Gas Plant as needed for platform abandonment purposes. The Casitas Pier remains operational to service various oil & gas platforms in the Santa Barbara Channel. A diesel engine drives the pier crane to load and unload supplies.

[1] APCD Rule 102, Definition: "Southern Zone"

Figure 1.1 Location Map for Carpinteria Gas Plant



1.2.2 Permit History: The following permit actions have occurred at this facility and are incorporated into this permit:

In 1979, an ATC permit was obtained from the District (ATC 3949) and a pre-construction permit from the USEPA (NSR 4-4-7/OCS 79-01) for the following activities:

(a) Addition of Platform Grace; (b) modification of the Pipeline facility and the Gas Plant; (c) construction of a new oil pipeline to Rincon; and (d) cessation of marine terminal operations except for emergencies. The Gas Plant's existing glycol regenerator unit was addressed by ATC 3949. A project-wide cap on NOx, SOx, NMHC, and PM (TSP) emissions is stipulated in the ATC.

Marine terminal operations for emergency purposes are no longer permitted due to compliance issues. Specifically, the facility cannot currently comply with District Rule 327 (*Organic Liquid Cargo Tank Vessel Loading*) since vapor control systems do not exist. In addition, the permit does not allow emissions from marine vessels associated with marine terminal operations. Chevron is required to obtain an ATC to resume operations of the marine terminal for any purpose.

ATC 9323: Issued October 17, 1994 for a tank installation and two stock tank conversions. The permit to operate for the tanks was issued on March 22, 1995.

ATC 9227: Issued in February, 1996 to de-rate the Therminol heater to below 5 MMBtu/hour. The net emission increase was zero.

ATC 10122: Issued April 27, 1999 to finalize the component leak path count at the pipeline facility and establish a baseline emissions inventory. The project addressed only existing equipment and lowered the total clp counts.

ATC 10123: Issued April 27, 1999 to finalize the component leak path count at the gas plant and establish a baseline emissions inventory. The project addressed only existing equipment and lowered the total clp counts.

ATC 10405: Issued May 7, 2001 to install a 250 bhp Waukesha F11GSI IC engine to drive a standby power generator. The IC engine emissions meet the District required emission limits for all pollutants. The permit to operate for this equipment was incorporated into the Renewal Part 70/District Permit to Operate 7996-R6 (February, 2003).

ATC 12214: Issued March 7, 2007 to replace the existing Casitas Pier crane engine with a new 180 brake horsepower (bhp) Tier 3 prime diesel engine (Deutz/Volvo Penta 228 bhp Model TAD 750VE).

ATC Mod 12214 02: Issued March 11, 2008 to replace the existing Mine-X diesel particulate filter (DPF) on the Casitas Pier crane engine with a Cleaire Horizon DPF.

PTO Mod 7996-03: Issued May 12, 2010 to revise the allowable range of ignition timings for IC engines IR#4, IR#5, and IR#6.

ATC 14450: Issued February 13, 2015 to replace the engine on the Casitas pier crane.

ATC 14364: Issued July 17, 2015 for a 5,000 bbl crude oil storage tank.

PTO 14364: Permit application to operate one 5,000 bbl crude oil storage tank was deemed complete on August 20, 2019 and was incorporated into Permit to Operate 7996-R11.

ATC/PTO 15306: Permit application to redesignate the Therminol heater as a flare and update the fugitive I&M inventory was deemed complete on August 1, 2019 and was incorporated into Permit to Operate 7996-R11.

PTO 7996-04: Permit application to remove the Pt70 elements from PTO 7996-R10 was deemed complete on August 9, 2018 and was incorporated into Permit to Operate 7996-R11.

ATC 15531: Permit application to install a vapor pressure intake scrubber vessel and the associated fugitive components. ATC 15531 was issued final October 5, 2020.

PTO 15531: Permit application to operate a vapor pressure intake scrubber vessel and the associated fugitive components. The application was deemed complete on October 21, 2020 and was incorporated into Permit to Operate 7996-R12.

ATC 15574: Permit application to replace the Casitas Pier crane engine. ATC 15574 was issued final February 1, 2021.

PTO 15574: Permit application to operate the Casitas Pier crane engine. A PTO was not issued. This action was rolled directly into Permit to Operate 7996-R12.

1.3 Emission Sources

The single emission source at the Carpinteria Gas Plant is the Casitas Pier crane engine. Section 4 of the permit provides the District's engineering analysis of this emission source. Section 5 of the permit describes the allowable emissions from this permitted emission unit and lists the potential emissions from non-permitted emission units.

The emission source is:

- One (1) Final Tier 4 diesel-fired ICE powering a crane at the Casitas Pier

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

1.4 Emission Control Overview

Air quality emission controls are utilized at the Gas Plant for one remaining emission unit. The emission controls employed at the facility include:

- One final Tier 4 diesel engine powering the crane

1.5 Offsets/Emission Reduction Credit Overview

1.5.1 ATC 3949 issued by the District for the modifications at the Gas Plant in 1979 required the permittee to provide NO_x emission offsets. These offset requirements no longer apply.

1.5.2 This facility currently provides ROC and NO_x emission reduction credits to the Point Arguello Project, and to the Santa Ynez Unit (SYU) Project. The ROC credits are provided from emission reductions generated by the 1988 Fugitive Hydrocarbon I&M Program and the NO_x credit from the emission reductions from the following Gas Plant compressors:

- One (1) 1800 hp, gas-fired Cooper-Bessemer unit (Model GMVA-10)
- Two (2) 440 hp, gas-fired Ingersoll-Rand unit (Model 8S-VG)

1.5.3 Decision of Issuance (DOI) 115 was issued for the creation of 18.350 tpy ROC Emission Reduction Credits (ERCs) from the shutdown of equipment at the Carpinteria Gas Plant. See Section 7.4 for additional information.

2.0 Process Description

2.1 Process Summary

2.1.1 Gas Processing and Sales: The Carpinteria Gas Plant no longer receives either produced gas for processing or PUC quality gas previously purchased from the SoCal Gas Company.

2.2 Support Systems

2.2.1 Flare: The flare, has been removed from service.

2.2.2 Vapor Recovery System: The vapor recovery system has been removed from service.

2.2.3 Wastewater Storage System: The Wastewater Storage System has been removed from service.

2.2.4 Crane: A diesel fired engine powers the crane on the Casitas pier which is used to load and unload supplies.

2.2.5 Sumps: The sumps are out of service.

2.3 Maintenance/Degreasing Activities

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

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

2.3.3 Smart Pigging: Chevron was given a waiver for all future biennial inspections from applicable agencies. The use of smart pigs to test for pipeline integrity will no longer be required.

2.3.4 Maintenance Pigging: Both the gas and oil lines have been fully pigged and flushed and filled with seawater. Pigging no longer occurs at the platform.

2.4 Planned Process Turnarounds

With most of the permitted equipment removed from service, no process turnarounds are scheduled to occur. As such, Chevron has not listed any emissions from planned process turnarounds that should be permitted.

2.5 Detailed Process Equipment Listing

Refer to 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)*: As of August 12, 2020 *de minimis* emission increases at the stationary source total 7.93 lb ROC/day.

📖 District Rule 202 (*Exemptions to Rule 201*): The following equipment is permit-exempt:

- One 250-hp, Cummins Model ISX12 500V, diesel-fired IC engine, which propels a vehicle, which provides a mount for the crane at the Casitas Pier (Section F.1.c)

- Two engines power the Casitas Pier crane, one powers the hydraulic systems, and one propels the chassis. The engine which powers the hydraulic systems, does not propel a vehicle, as defined in Section 670 of the California vehicle Code; therefore, it is not exempt from a District permit.

3.2 Compliance with Applicable Federal Rules and Regulations

3.2.1 40 CFR Parts 51/52 {*New Source Review (Nonattainment Area Review and Prevention of Significant Deterioration*)}: The Gas Plant was constructed and permitted prior to the applicability of these regulations. In 1979, ATC NSR 4-4-7/OCS -79-01 was granted by USEPA for modifications to the Gas Plant. These modifications were subject to NSR and included the installation of a glycol regenerator, a secondary seal on the external floating roof tank, the cessation of tanker operations, and the construction and dedicated use of an oil pipeline to Rincon.

3.2.5 40 CFR Part 63 {*MACT Standards Subpart ZZZZ}:* Subpart ZZZZ is a NESHAPS for stationary reciprocating internal combustion engines (RICE). An affected source under the NESHAP is any existing, new, or reconstructed stationary RICE located at a major source or area source.

(i) The crane engine meets the requirements of this NESHAP by meeting the requirements of NSPS IIII. No further requirements apply to the crane engine under the NESHAP.

3.2.6 40 CFR Part 70 Operating Permits: The Carpinteria Gas Plant was formerly a Part 70 source and subject to this subpart. However, a substantial amount of processing equipment was depermitted resulting in stationary source permitted emission totals below the Part 70 100 tons/year threshold, therefore this facility is no longer a Part 70 source. The Part 70 elements of this permit were removed during issuance of PTO 7996-R11 on September 29, 2019.

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.

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 facility are required to conform to these standards. Compliance will be assessed through onsite District inspections.

3.3.3 California Code of Regulations, Title 17, Section 93115: This section is the airborne toxic control measure (ATCM) to reduce diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel-fueled compression ignition (CI) engines. Its provisions apply to any stationary, industrial CI engine operated in California with a rated brake horsepower greater than 50. Portable or off-road or marine vessel IC engines are exempt from this ATCM.

The crane engine is a new stationary prime diesel-fueled CI engine, as defined in the ATCM. The engine complies with the diesel PM standard of the ATCM since it is a Tier 4 engine.

3.3.4 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 natural gas processing plants. The facility no longer has any permitted oil and gas activities or equipment, as a result, the facility is no longer subject to the requirements of this regulation.

3.4 Compliance with Applicable Local Rules and Regulations

3.4.1 Rules Requiring Further Discussion: The following is a rule-by-rule evaluation of compliance for this facility:

- 🕮 District 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. Attachment 10.4 presents the fee calculations for the reevaluated permit.

- 🕮 District 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, Chevron is operating in compliance with this rule.

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

- 🕮 District Rule 303 (*Nuisance*): This rule prohibits Chevron from causing a public nuisance due to the discharge of air contaminants. Complaint logs shall be maintained on-site to record any nuisance complaint reported to the District that requires mitigation by Chevron.

- 🕮 District Rule 305 (*Particulate Matter, Southern Zone*): The Gas Plant is considered a Southern Zone source. This rule prohibits the discharge into the atmosphere from any source particulate matter in excess of specified concentrations measured in gr/scf. The maximum allowable concentrations are determined as a function of volumetric discharge, measured in scfm, and are listed in Table 305(a) of the rule (*lowest allowable limit is 0.01 gr/dscf*). Sources subject to this rule include all IC engines. 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.

- 🕮 District Rule 309 (*Specific Contaminants*): Under Section A, no source may discharge sulfur compounds in excess of 0.2 percent as SO_2 (by volume) and combustion contaminants in excess of 0.1 gr/scf (at 12% CO_2). Sulfur emissions due to combustion of either PUC-quality natural gas or fuel gas (less than 12 ppmv S) will comply with the SO_2 limit. Compliance with PM_{10} emission limits is automatically met by all gas-fired devices as described above (uncontrolled PM_{10} emission factor equivalent to about 0.007 gr/dscf). The diesel-powered IC engine has the potential to exceed combustion contaminant limits if not properly maintained (*see discussion on Rule 305 above for compliance*).

- 🕮 District Rule 310 (*Odorous Organic Compounds*): This rule prohibits the discharge of H_2S and organic sulfides that result in a ground level impact beyond the property boundary in excess of either 0.06 ppmv averaged over 3 minutes and 0.03 ppmv averaged over 1 hour. No measured data exists to confirm compliance with this rule; however, all gas handled at this facility contains less than 12 ppmv sulfur. Therefore, compliance with this rule is expected.

- 🕮 District Rule 311 (*Sulfur Content of Fuels)*: This rule limits the sulfur content of fuels combusted at this facility to 0.5 percent (by weight) for liquid fuels and 15 gr/100 scf calculated as H_2S (equivalent to 239 ppmvd) for gaseous fuels. The diesel-fired IC engine at the pier is expected to be in compliance with the liquid fuel limit as determined by fuel analysis documentation or verification provided by the fuel provider.

- 🕮 District Rule 317 (*Organic Solvents*): This rule sets specific prohibitions against the use of both photochemically and non-photochemically reactive organic solvents (40 lb/day and 3,000 lb/day respectively). Solvents may be used 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. Chevron is required to maintain daily solvent usage records (along with the solvent's MSDS) and submit them to the District to ensure compliance with this rule.

- 🕮 District Rule 321 (*Solvent Cleaning Operations*): This rule sets equipment and operational standards for degreasers using organic solvents. Chevron has stated that, except for routine maintenance involving wipe cleaning etc., it does not use solvents at the facility.

- 🕮 District 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. Chevron is required to maintain records during all maintenance/coating operations to ensure compliance with this rule, which is verified during inspections.

- 🕮 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.

- 🕮 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. Chevron is required to maintain records to ensure compliance with this rule.

- 🕮 District Rule 333 (*Control of Emissions from Reciprocating IC Engine*): This rule applies to any engine with a rated brake horsepower of 50 or greater. The rule establishes NOx, ROC and CO emission standards for IC engines. Engines must be inspected at least quarterly in accordance with a District-approved inspection and maintenance plan. Each spark-ignited engine must be source tested biennially. The compression ignited crane engine must be source tested if quarterly monitoring detects exhaust concentrations greater than 36 ppmv NO_x at 15 percent oxygen. The source test trigger for the crane engine is lower than the Rule 333 limit of 560 ppmv NO_x at 15 percent oxygen because the crane engine is also subject to New Source Review limits. Compliance with the new source review limits also ensures compliance with the Rule 333 limits.

- 🕮 District Rule 342 *(Control of Oxides of Nitrogen from Boilers, Steam Generators and Process Heaters)*: This rule sets emission standards for external combustion units with a rated heat input greater than 5.0 MMBtu/hr. The facility does not have any emission units subject to this rule.

- 🕮 District Rule 353 *(Adhesives and Sealants)*: This rule sets standards for adhesives and sealants. Chevron is required to comply with the requirements under Section B.2, and Section O of this rule for each adhesive or sealant used. Compliance shall be based on site inspections and records maintained by Chevron.

- 🕮 District Rule 360 *(Boilers, Water Heaters, and Process Heaters (0.075-2.0 MMBtu/hr)*: Chevron shall comply with the requirements of this rule whenever a new boiler, process heater or other external combustion device is added or an existing unit is replaced. An ATC/PTO permit shall be obtained prior to installation of any grouping of Rule 360 applicable boilers or hot water heaters whose combined system design heat input rating exceeds 2.000 MMBtu/hr. An ATC shall be obtained for any size boiler or water heater if the unit is not fired on natural gas or propane. There are no units at this facility subject to this rule.

- 🕮 District Rule 361 *(Boilers, Steam Generators, and Process Heaters 2-5 MMBtu/hr)*: Chevron shall comply with the requirements of this rule whenever a new boiler, process heater or other external combustion device is added or an existing unit is replaced. An ATC permit shall be obtained prior to installation, replacement, or modification of any existing Rule 361 applicable boiler or water heater rated over 2.000 MMBtu/hr. An ATC shall be obtained for any size boiler or water heater if the unit is not fired on natural gas or propane. There are no units at this facility subject to this rule.

- 🕮 District Rule 505 *(Breakdown Conditions)*: This rule describes the procedures that Chevron must follow when a breakdown condition occurs to any emissions unit. 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. The Rule also provides the parameters for such failure or malfunction to be recognized as such.

3.5 Compliance History

This section contains a summary of the compliance history for this facility since the last permit reevaluation. These data were obtained from the District administrative files and the IDS database maintained by the District.

3.5.1 District Inspections: The District has been conducting quarterly facility inspections at this facility since issuance of the previous permit reevaluation. These inspections did not result in any compliance issues.

3.5.2 Violations: There was one enforcement action and multiple complaints (8) at this facility since issuance of the previous permit reevaluation. All complaints were associated with the enforcement action listed below for odors emanating from this facility. Notice of Violation 13190 has been resolved.

NOV	DATE ISSUED	DESCRIPTION
NOV 13190	09/19/2022	Failure to control odors.

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
- ☞ process monitors needed to ensure compliance

4.2 Stationary Combustion Sources

The stationary combustion sources at the facility consist of (1) diesel-fired piston IC engine to power the crane.

4.2.1 Crane Engine: A 200 bhp, Cummins diesel-fired engine, Model QSB4.5, powers the crane. The engine is a Tier 4 Turbocharged/aftercooled diesel-fired internal combustion engine.

4.2.2 Emissions Calculations for IC Engines: Emissions from the IC engines are calculated as follows. See Attachment 10.1 for further details.

Diesel-Fired Engine

$$ER = EF \times bhp \times hr / 453.6$$

where:	ER =	Emission rate (lb/period)
	EF =	Pollutant specific emission factor (g/hp-hr)
	bhp =	brake horsepower rating of the engine
	hr =	hours of operation per period
	453.6 =	conversion from grams to pounds

4.3 Other Emission Sources

4.3.1 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.

4.3.3 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 $PM/PM_{10}/PM_{2.5}$ from paint over spray are not calculated due to the lack of established calculation techniques.

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

4.4 BACT/NSPS/NESHAP/MACT

BACT: Best Available Control Technology is required for NO_x for the crane installed in December 2020 under an IPAP for ATC 15574 because the previous crane engine was subject to BACT. The engine satisfies the BACT requirements because it is a Tier 4 final engine with a NTE NO_x emission factor of 0.45 g/bhp-hr. Table 4.2 details the BACT requirements.

NSPS/NESHAP/MACT: In 1986 and 1988 the Gas Plant was modified. The 1988 modifications resulted in increases in ROC emissions due to construction and installation of the gas sweetening

system, slug catcher, centrifugal separator, and natural gas liquid loading system. Because of these modifications, the Gas Plant is subject to the control requirements of New Source Performance Standards, 40 CFR Part 60, Subpart KKK (Equipment Leaks of VOC from Onshore Gas Processing Plant) promulgated in June, 1985. The NESHAP for reciprocating IC engines applies to the facility.

4.5 CEMS/Process Monitoring

4.5.1 CEMS: There are no CEMS at this facility.

4.5.2 Process Monitoring: At a minimum, the following process monitors are required to be calibrated and maintained in good working order:

- Meter recording diesel fuel use by the crane engine
- Display units for IC engine process parameters (including A/F ratio controller)
- Meters recording hours of operation of the IC engine

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

4.6 Source Testing/Sampling

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

The crane engine is required to be monitored using a portable NOx and CO analyzer to verify compliance with applicable emission standards. If the results from a portable analyzer reading exceed the emission standards, source testing is required. Source testing requirements are listed in Table 4.1 below.

All sampling and analyses must be performed according to District approved procedures and methodologies. The appropriate tested methods are listed in the relevant permit conditions. All samples must be traceable by chain of custody procedures.

Table 4.1. Source Test Requirements [a][b]				
Equipment	Pollutant/ Parameter	Exhaust Concentration Limit [c] (ppmv @ 15%O_2)	Max. Exhaust Emission Rate (lb./hr)	Comments
Crane Engine	NO_x	36	See Table 5.1-3	EPA Method 7E, ARB 1-100
	ROC	48	See Table 5.1-3	EPA Method 18
	CO	425	See Table 5.1-3	EPA Method 10, ARB 1-100
	DPF Temperature and Pressure	Measure		
	Exhaust Oxygen	Dry, Mol. Weight, EPA Method 3		
	Fuel Flow	scf/hr for gas engines, gal/hr for diesel engine		
	Fuel Analysis	Measure		

Notes:

(a) All source test values shall be reported at standard conditions (60°F and 1 atm.) unless otherwise specified.

(b) Emission source test shall be performed at maximum achievable IC engine output (bhp)

Table 4.2. BACT Requirements			
Emission Unit/Process	**Control Technology**	**Pollutant**	**Performance Standard**
Crane Engine	EPA Tier 4 certified engine	NO_x	0.45 g/bhp-hr or 36 ppmv @ 15% O_2

Table Notes:

(a) The NO_x BACT performance standard is based on the not-to-exceed (NTE) value. See Attachment 10.1 for an explanation of NTE factor.

5.0 Emissions

5.1 General

Emissions calculations are divided into "permitted" and "exempt" categories. Permit exempt equipment is determined by District Rule 202. The permitted emissions for each emissions unit are based on the equipment's potential-to-emit (as defined by Rule 102). 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 addresses HAPs emissions and Section 5.5 addresses permit exempt equipment. In order to accurately track the emissions from a facility, the District uses a computer database. Attachment 10.3 contains the District's documentation for the information entered into that database.

5.2 Permitted Emission Limits - Emission Units

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

- ⇒ Nitrogen Oxides (NO_x) [2]
- ⇒ Reactive Organic Compounds (ROC)
- ⇒ Carbon Monoxide (CO)
- ⇒ Sulfur Oxides (SO_x) [3]
- ⇒ Particulate Matter (PM)
- ⇒ Particulate Matter smaller than 10 microns (PM_{10})
- ⇒ Particulate Matter smaller than 2.5 microns ($PM_{2.5}$)

Permitted emissions are calculated for both short term (daily) and long term (annual) time periods. Section 4.0 (Engineering Analysis) provides a general discussion of the basic calculation methodologies and emission factors used. The reference documentation for the specific emission calculations, as well as detailed calculation spreadsheets, may be found in Section 4 and Attachments 10.1 and 10.2 respectively. Table 5.1-1 provides the basic operating characteristics. Table 5.1-2 provides the specific emission factors. Tables 5.1-3 and 5.1-4 show the permitted short-term and permitted long-term emissions for each unit or operation, respectively. Table 5.2 summarizes the permitted emissions for each equipment group.

5.3 Permitted Emission Limits - Facility Totals

The total potential-to-emit for all emission units associated with the facility was 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.

---

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

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

Daily Scenario:

☞ One crane engine

Annual Scenario:

☞ One crane engine

5.4 Hazardous Air Pollutant Emissions for the Facility

The Chevron - Carpinteria Stationary Source is currently below the hazardous air pollutants (HAP) emissions threshold (10 tpy of any individual HAP or 25 tpy of any combination of HAPs) which would otherwise qualify it as a Part 70 source. The current HAPs emission totals are provided in Table 5.4-2 below.

5.5 District Permit-Exempt Emission Units

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

- The 250-hp IC engine (Cummins Model ISX12 500V) driving the cab that provides a mount for the Casitas Pier Crane (the crane itself is powered separately by a non-exempt diesel engine)

Table 5.1-1
Carpinteria Gas Plant PTO 7996-R13
Operating Equipment Description

			Device Specifications				Usage Data			Maximum Load Schedule			
Equipment Category	Chevron ID/ Emissions Unit	APCD ID #	Feed	Parameter	Size	Units	Capacity	Units	Load	hr	day	qtr	year
Crane Engine*	Cummins QSB4.5	395030	D	% S 0.0015	200	hp	1.420	MMBtu/hr	1.000	1	2	49.6	241.2
Solvent/Coatings	Solvents	N/A		%S	Rule Limits				1.00	1	24	2190	8760
	Surface Coating	N/A			Rule Limits				1.00	1	24	2190	8760

* Note: The hours per day and hours per year listed for the crane engine are not operational limits, the engine's operation is limited by fuel use: 25 gal/day and 2500 gal/year.

Table 5.1-2
Carpinteria Gas Plant PTO 7996-R13
Equipment Emission Factors

			Emission Factors							
Equipment Category	Emissions Unit	APCD ID #	SCC Code	NOx	ROC	CO	SOx	PM	$PM_{2.5/10}$	Units
Crane Engine	Cummins QSB4.5	395030	2-03-001-01	0.45	0.21	3.25	0.01	0.02	0.02	g/bhp-hr
Solvent/Coatings	Solvents	N/A			Rule Limits					lbs ROC/gal
	Surface Coating	N/A			Rule Limits					lbs ROC/gal

** --- source test data is used as em.fac. for these engines, based on the APCD permits ATC 5704/5651/6408/PTO 7482 applicable to the ICE's

Table 5.1-3
Carpinteria Gas Plant PTO 7996-R13
Hourly and Daily Emissions

Equipment Category	Emissions Unit	APCD ID #	NOx		ROC		CO		SOx		PM		$PM_{2.5/10}$	
			lbs/hr	lbs/day	lbs/hr	lbs/day	lbs/hr	lbs/day	lbs/hr	lbs/day	lbs/hr	lbs/day	lbs/hr	lbs/day
Crane Engine	Cummins QSB4.5	395030	0.20	0.48	0.09	0.22	1.43	3.46	0.00	0.01	0.01	0.02	0.01	0.02
Solvent/Coatings	Solvents	N/A	-	-	Rule Limits	Rule Limits	-	-	-	-	-	-	-	-
	Surface Coating	N/A	-	-	Rule Limits	Rule Limits	-	-	-	-	-	-	-	-

*** 'FE' means 'federally enforceable'
*** 'A' means APCD enforceable only

Table 5.1-4
Carpinteria Gas Plant PTO 7996-R13
Quarterly and Annual Emissions

Equipment Category	Emissions Unit	APCD ID #	NOx		ROC		CO		SOx		PM		$PM_{2.5/10}$	
			TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY
Crane Engine	Cummins QSB4.5	395030	0.00	0.02	0.00	0.01	0.04	0.17	0.00	0.00	0.00	0.00	0.00	0.00
Solvent/Coatings	Solvents	N/A	-	-	Rule Limits	Rule Limits	-	-	-	-	-	-	-	-
	Surface Coating	N/A	-	-	Rule Limits	Rule Limits	-	-	-	-	-	-	-	-

*** 'FE' means 'federally enforceable'
*** 'A' means APCD enforceable only

Table 5.2
Carpinteria Gas Plant PTO 7996-R13
Total Permitted Facility Emissions

A. Peak Hourly (lb/hr)

Equipment Category	NOx	ROC	CO	SOx	PM	$PM_{2.5/10}$
Crane Engine	0.20	0.09	1.43	0.00	0.01	0.01
TOTALS (lb/hr)	**0.20**	**0.09**	**1.43**	**0.00**	**0.01**	**0.01**

B. Peak Daily (lb/day)

Equipment Category	NOx	ROC	CO	SOx	PM	$PM_{2.5/10}$
Crane Engine	0.48	0.22	3.46	0.01	0.02	0.02
TOTALS (lb/day)	**0.48**	**0.22**	**3.46**	**0.01**	**0.02**	**0.02**

C. Peak Quarterly (Tons/Qtr)

Equipment Category	NOx	ROC	CO	SOx	PM	$PM_{2.5/10}$
Crane Engine	0.00	0.00	0.04	0.00	0.00	0.00
TOTALS (ton/qtr)	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**

D. Peak Annual (Ton/yr)

Equipment Category	NOx	ROC	CO	SOx	PM	$PM_{2.5/10}$
Crane Engine	0.02	0.01	0.17	0.00	0.00	0.00
TOTALS (ton/yr)	**0.02**	**0.01**	**0.17**	**0.00**	**0.00**	**0.00**

Table 5.3
Carpinteria Gas Plant PTO 7996-R13
Federal Potential to Emit

A. Peak Hourly (lb/hr)

Equipment Category	NOx	ROC	CO	SOx	PM	PM10	CO2
Internal Comb. Engines (incl.crane)	0.20	0.09	1.43	0.00	0.01	3.46	0.00
TOTALS (lb/hr)	**0.20**	**0.09**	**1.43**	**0.00**	**0.01**	**3.46**	**0.00**

D. Peak Annual (ton/yr)

Equipment Category	NOx	ROC	CO	SOx	PM	PM10	CO2
Internal Comb. Engines (incl.crane)	0.02	0.01	0.17	0.00	0.00	0.00	0.01
TOTALS (ton/yr)	**0.02**	**0.01**	**0.17**	**0.00**	**0.00**	**0.00**	**0.01**

Table 5.4-1
Carpinteria Gas Plant PTO 7996-R13
Equipment Hazardous Air Pollutant Emission Factors

Equipment Category	Description	APCD Device No.	Acetaldehyde	Acrolein	Arsenic	Benzene	Beryllium	Biphenyl	1,3-Butadiene	Cadmium	Carbon tetrachloride	Chlorobenzene	Chloroform	Chromium (total)	1,3-dichloropropene	Ethyl benzene	Ethylenedibromide	Formaldehyde	HCl	Hexane	Iso-octane (2,2,4-trimethylpentane)	Lead	Manganese	Mercury	Methanol	Methylene Chloride	Naphthalene	Nickel	PAHs	Phenol	Selenium	Styrene	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	Toluene	Vinyl Chloride	Xylenes	Units	References
Crane Engine [1]	Cummins QSB4.5	395030	7.83E-01	3.39E-02	1.60E-03	1.86E-01	0.00E+00	-	2.17E-01	1.50E-03	-	2.00E-04	-	6.00E-04	-	1.09E-02	-	1.73E+00	1.86E-01	2.68E-02	-	8.30E-03	3.10E-03	2.00E-03	-	-	1.97E-02	3.90E-03	5.59E-02	-	2.20E-03	-	-	-	1.05E-01	-	4.24E-02	lb/1000 gallon	
Solvent/Coatings [2]	Solvents	--	-	-	-	5.00E-02	-	-	-	-	-	2.60E-03	-	-	-	3.50E-03	-	-	-	-	-	-	-	-	-	-	3.50E-03	-	-	-	-	-	-	-	5.00E-02	-	5.00E-02	lb/lb ROC	
	Surface Coating	--	-	-	-	5.00E-02	-	-	-	-	-	2.60E-03	-	-	-	3.50E-03	-	-	-	-	-	-	-	-	-	-	3.50E-03	-	-	-	-	-	-	-	5.00E-02	-	5.00E-02	lb/lb ROC	

NOTES:

Table 5.4-2
Carpinteria Gas Plant PTO 7996-R13
HAP Emissions (ton/yr)

Equipment Category	Emissions Unit	APCD ID #	Acetaldehyde	Acrolein	Arsenic	Benzene	Beryllium	Biphenyl	1,3-Butadiene	Cadmium	Carbon tetrachloride	Chlorobenzene	Chloroform	Chromium (total)	1,3-dichloropropene	Ethyl benzene	Ethylenedibromide	Formaldehyde	HCl	Hexane	Iso-octane (2,2,4-trimethylpentane)	Lead	Manganese	Mercury	Methanol	Methylene Chloride	Naphthalene	Nickel	PAHs	Phenol	Selenium	Styrene	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	Toluene	Vinyl Chloride	Xylenes
Crane Engine	Cummins QSB4.5	395030	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	-	0.00	-	0.00	-	0.00	-	0.00	0.00	0.00	-	0.00	0.00	0.00	-	-	0.00	0.00	0.00	-	0.00	-	-	-	0.00	-	0.00
Solvent/Coatings	Solvents	N/A	-	-	-	0.37	-	-	-	-	-	0.02	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	-	-	-	0.37	-	0.37
	Surface Coating	N/A	-	-	-	0.37	-	-	-	-	-	0.02	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	0.03	-	-	-	-	-	-	-	0.37	-	0.37
	Sub Total HAPs (ton/yr):		**0.00**	**0.00**	**0.00**	**0.73**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.04**	**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**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.73**	**0.00**	**0.73**
	Total HAPs (ton/yr):	**2.33**																																			

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 Carpinteria Gas Plant is subject to the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). In October 2006, the District conducted a final HRA for the Carpinteria Gas Plant and Oil Pipeline, using the Hotspots Analysis and Reporting Program (HARP) software, Version 1.1 (Build 23.02.10). Cancer risk and chronic and acute non-cancer hazard index risk values were calculated and compared to significance thresholds for cancer and chronic and acute non-cancer risk adopted by the District's Board of Directors.

Based on the final HRA with the 1999 toxic emissions inventory, the Carpinteria Gas Plant exceeded the District's significance thresholds for cancer and acute non-cancer risk. The cancer risk was primarily due to benzene emissions from leaking fugitive components. The acute non-cancer risk driver was acrolein from the internal combustion engines. The HRA Report documents the results and the inputs to the model and is found in the AB 2588 Project File.

A formal request was made to install NSCR on IR#3 and increasing the stack height of IR#1 to reduce the acute non-cancer risk in their December 19, 2006 *Risk Reduction and Audit Plan* (RRAP). The District commented on the RRAP on January 12, 2007. Based on a February 13, 2007 response, the District conditionally approved the RRAP on April 4, 2007. The implementation of the RRAP reduced the cancer and acute non-cancer risk to the following levels:

	Chevron Carpinteria Max Risks	Significance Threshold
Cancer risk:	8.1 /million	>10/million
Chronic non-cancer risk:	0.08	> 1
Acute non-cancer risk:	0.58	> 1

In addition to the acute non-cancer risk reduction measure, the RRAP included the three other risk reduction measures listed below, which are enforced under this permit:

- Fugitive benzene emission limits and implementation of the correlation equation methodology following the guidelines of District's Policy and Procedure 6100.072.1998, *Use of Correlation Equation Methodology to Estimate Mass ROC emission at Oil and Gas Facilities* (see ATC 12230 and ATC 12229). The fugitive benzene limits listed in this permit apply to all components at the facility, including fugitive components installed under the Rule 202 de minimis exemption.

- The Cooper engine is permanently removed from service.
- Wastewater Tank T-380 is permanently removed from service.

RRAP measures were formerly imposed on IR#1 and IR#3, however these units have been removed from service. RRAP measures were also imposed on fugitive benzene emissions implemented via ATC Nos. 12229 & 12230 and are enforced by this permit. The Cooper engine and wastewater tank T-380 are permanently removed from service. Thus, the District considers this facility to be below significance levels for both cancer and non-cancer risks.

7.0 CAP Consistency, Offset Requirements and ERCs

7.1 General

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

7.2 Clean Air Plan

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

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 Chevron Carpinteria stationary source does not currently require emission offsets. Minor modifications occurred at the Gas Plant in 1980 to accommodate the throughput from OCS Platform Grace. These modifications required 75 lb/hour NOx emissions reductions as offsets. The required reduction was provided by Chevron's Oxnard-West Montalvo facility which surrendered four (4) of its permits to operate five (5) IC engines (with a total 3,440 hp rating) to the Ventura APCD. This transaction also netted Chevron a continuous NOx reduction credit of

9 lb/hour from the Santa Barbara District to apply to any project occurring in the District, but only prior to June 30, 1982. This credit is not associated with any current Chevron projects.

7.4 Emission Reduction Credits

This facility historically provided contemporaneous ROC and NO_x emission reduction credits to the Point Arguello Project under ATC 5704 and ExxonMobil's Santa Ynez Project under ATC 5651. The NO_x emission reduction credits came from 249.8 tons/yr of emission reductions effected at three large gas compressors at the Gas Plant. The ROC emission reduction credits of 119.91 tons/yr were based on a fugitive hydrocarbon inspection and maintenance program implemented at the Gas Plant.

From a document supporting Pt. Arguello ATC 5704, it was noted that the emission reduction credits were based on available Gas Plant P&IDs showing miscellaneous fugitive components in place; no field surveys were made to verify the actual count of these components against the P&ID count until late 1990. In short, the component count at Gas Plant was deemed large enough to provide the required offsets even with a significant margin of error. The Gas Plant component field survey in 1990-91 established a higher number of components, as reflected by the District inspection reports. However, this did not change the ERCs granted to Chevron; nor does Chevron now qualify to receive any additional ERCs based on the discovered discrepancy. The emission reduction credits (ERCs) created in 1987 were based on the following activities performed by Chevron at this facility:

ROC: ROC credits were based on the *Fugitive Components Inspection and Maintenance (I&M) Plan* submitted by Chevron in December 1987 and approved by the District. This plan is basically modeled after the NSPS, Subpart KKK. Based on District data, implementation of this plan provided 80 percent fugitive ROC emissions reduction from the components. All the project ROC emissions were computed based on the District-recommended *Tecolote Report, April, 1986*, as were the ERCs from Chevron's I&M measures. The I&M Plan was implemented via District PTO 7482 that was not based on any ATC. The component counts for the ERCs were based on the existing data in the District files. The emission reduction measures, pursuant to the plan, provided emission credits to offset ROC emissions at ExxonMobil's Santa Ynez Project (49.8 tons/yr) and The Pt. Arguello Project (13.5 tons/yr). Gaviota Terminal Co.'s GIMT Project (59.38 tons/yr) released the ERCs it previously needed.

NOx: NOx credits were based on the IC engine modifications carried out at the Chevron Gas Plant and the consequent NOx emissions reduction. The Cooper engine was modified to perform as a "clean burn" i.e., very lean burn engine and two Ingersoll-Rand engines were modified for pre-stratified charge operations. All three engines were source tested in 1986 to provide the pre-modification NOx and ROC emissions factor to be used to compute baseline emissions from these engines. Chevron provided IC engine maintenance plans for these three engines to the District for approval and then implemented the plan. The plans specified the significant performance parameters of the emission control elements which were to be maintained during the project lifetime. This ensured that any subsequent performance degradation of these engines did not diminish the emission reductions originally achieved in 1986. The emission reduction measures, pursuant to the plan, provided emission credits to offset NO_x emissions at ExxonMobil's Santa Ynez Project (166 tons/yr) and The Pt. Arguello Project (87 tons/yr). The GIMT Project (25.6

tons/yr) released the ERCs it previously needed.

Decision of Issuance 115: Permit to Operate application 7996-04 was submitted on July 12, 2018 and incorporated into PTO 7996-R11. This permit modification involved depermitting a significant amount of processing equipment at the gas plant. Depermitting of this equipment resulted in the removal of a majority of the fugitive components at the plant. Decision of Issuance (DOI) 115 was issued final on November 4, 2019 for the creation of 18.350 tpy ROC emission reduction credits (ERCs) associated with these fugitive components. Emission Reduction Certificate No. 0587-1026 was issued for these ERCs.

8.0 Lead Agency Permit Consistency

Except as discussed below, to the best of the District's knowledge, no other governmental agency's permit requires air quality mitigation. In September 1979, the USEPA issued Chevron an Authority to Construct permit (NSR 4-4-7/OCS-79-1) for the Santa Rosa Project. The issuance of this permit is consistent with the requirements of the USEPA's 1979 permit.

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9.0 Permit Conditions

This section lists the applicable permit conditions for this facility. Section A lists the standard administrative conditions. Section B lists "generic" permit conditions, including emission standards, for all equipment in this permit. Section C lists conditions affecting specific equipment.

9.A Standard Administrative Conditions

The following federally-enforceable administrative permit conditions apply to the Gas Plant:

A.1 **Condition Acceptance.** Acceptance of this operating permit by Chevron shall be considered as acceptance of all terms, conditions, and limits of this permit.

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

A.3 **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, Chevron 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.

A.4 **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.

A.5 **Consistency with Analysis.** Operation under this permit shall be conducted consistent with all written data, specifications and assumptions included with the application and supplements thereof (as documented in the District's project file), and with the District's analyses under which this permit is issued.

A.6 **Consistency with State and Local Permits.** Nothing in this permit shall relax any air pollution control requirement imposed on this facility by the State of California or the California Coastal Commission in any consistency determination for the Project with the California Coastal Act.

A.7 **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.

A.8 **Recordkeeping Requirements.** Chevron maintain records of required monitoring information. The records (electronic or hard copy), as well as all supporting information including calibration and maintenance records, shall be maintained for a minimum three (3) years from date of initial entry by the permittee and shall be made available to the District upon request.

A.9 **Equipment Maintenance.** The equipment listed in this permit shall be properly maintained and kept in good condition at all times. The equipment manufacturer’s maintenance manual, maintenance procedures and/or maintenance checklists (if any) shall be kept on site.

A.10 **Conflict between Permits.** The requirements or limits that are more protective of air quality shall apply if any conflict arises between the requirements and limits of this permit and any other permitting actions associated with the equipment permitted herein.

9.B. Generic Conditions

The generic conditions listed below apply to all emission units, regardless of their category or emission rates. 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.

B.2 **Visible Emissions (Rule 302).** Chevron shall not discharge into the atmosphere from any single source of emission any 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.

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

B.4 **Specific Contaminants (Rule 309).** Chevron 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.

B.5 **Odorous Organic Sulfides (Rule 310).** Chevron shall not discharge into atmosphere H_2S and organic sulfides that result in a ground level impact beyond the property boundary in excess of either 0.06 ppmv averaged over 3 minutes and 0.03 ppmv averaged over 1 hour.

B.6 **Organic Solvents (Rule 317).** Chevron shall comply with the emission standards listed in Rule 317.B. Compliance with this condition shall be based on compliance with Condition C.8 of this permit.

B.7 **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 compliance with Condition C.8 of this permit and facility inspections.

B.8 **Architectural Coatings (Rule 323.1).** Chevron 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.9 **Disposal and Evaporation of Solvents (Rule 324).** Chevron 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 compliance with Condition C.8 of this permit and facility inspections.

B.10 **Adhesives and Sealants (Rule 353).** Chevron 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 Chevron 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 Section O of Rule 353.

B.11 **Abrasive Blasting Equipment.** All abrasive blasting activities shall comply with the requirements of the California Administrative Code Title 17, Sub-Chapter 6, Sections 92000 through 92530.

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

B.13 **Oil and Natural Gas Production MACT.** Chevron 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, Chevron shall maintain records in accordance with 40 CFR Part 63, Subpart A, Section 63.10(b) (1) and (3).

9.C Equipment Specific Conditions

This section includes emissions and operations limits, monitoring, recordkeeping and reporting conditions for each specific equipment group.

C.1 **Diesel Fired Crane Engine.** The following equipment is included in this emission category:

Table C.1-1

District ID No.	Chevron ID No.	Name
395030	Crane Engine	Cummins 200 bhp Tier 4 Engine

(a) **Emission Limitations.** The mass emissions from the equipment permitted herein shall not exceed the values listed in Tables 5.1-3 and 5.1-4 and the diesel PM standards listed below. Compliance shall be based on the operational, monitoring, source testing, recordkeeping and reporting conditions of this permit.

(i) Diesel PM Standard. The stationary prime diesel fueled CI engine subject to this permit shall comply with the 0.02 grams diesel PM per brake-horsepower-hour (g/bhp-hr) emission standard in California Code of Regulations Title 17, Section 93115.7.

(ii) Emission concentrations. Emissions from the crane engine shall not exceed 36 ppmv NO_x, at 15 % O_2, 48 ppmv ROC at 15% O_2 and 425 ppmv CO at 15% O_2. Compliance with the Tier standards ensures compliance with the Rule 333 requirements. Compliance with the NOx, ROC and CO limits shall be based on portable analyzer monitoring and source testing required by the *Portable Analyzer Monitoring* Condition 9.C.1(c)(v) and *Source Testing* Condition 9.C.1(c)(vi).

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

(i) Fuel Usage Limits. The daily and annual fuel input limits to the engine shall not exceed 25 gal/day or 2,500 gal/yr of fuel use. Compliance with the daily value will be based on monthly data divided by the number of actual days of operation per month.

(ii) Fuel and Fuel Additive Requirements. Chevron may only add fuel and/or fuel additives to the engine or any fuel tank directly attached to the engine that complies with the Stationary Diesel Engine ATCM.

(iii) Diesel Fuel Sulfur Limit. The total sulfur content of the diesel fuel used shall not exceed 15 ppmw in accordance with the requirements of the Stationary Diesel Engine ATCM for CARB diesel.

(iv) Engine Identification. The engine shall be identified with a permanently-affixed plate, tag or marking, referencing either: (i) the IC engine's make, model, serial number, rated BHP and corresponding RPM; or (ii) the operator's unique tag number. The tag shall be made accessible and legible to facilitate District inspection of the IC engine.

(v) Tier 4 Final Emissions Control Systems. All emission control systems associated with the crane engine shall be maintained and operated in accordance with manufacturer operating procedures. Any reagent used by the Selective Catalytic Reduction (SCR) system shall be maintained above the minimum required level necessary to control emissions when the engine is operating.

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

(i) Non-Resettable Hour Meter. The engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours. A log shall be maintained that records the hours of operation and the number of operating days per month for the engine.

(ii) Fuel Usage Metering. The volume of diesel fuel (in gallons) burned in the engine shall be measured through the use of a District-approved calibrated non-resettable fuel meter. A log shall be maintained that records the fuel usage of the engine. As an alternative to in-line fuel meters, the permittee may report individual engine hours of operation utilizing a District-approved elapsed time meter[4]. A log shall be maintained that records the fuel usage of each engine. The fuel meter shall be calibrated periodically pursuant to the recommendations of the manufacturer and shall be maintained in proper operating condition.

(iii) Diesel Fuel Sulfur Content. Compliance with the Diesel Fuel Sulfur Limit condition shall be based upon information provided on the diesel fuel by fuel vendor analysis or documentation for each fuel shipment that the fuel meets California Code of Regulations, Title 13, Section 2281 standards (i.e., ARB "Clean Diesel"), or information provided for the diesel fuel by fuel vendor analysis. Alternately, the permittee shall annually sample and perform a fuel total sulfur analysis consistent with appropriate ASTM procedures.

(iv) ICE Inspection and Maintenance Plan. Chevron shall implement the District approved *Internal Combustion Engine Inspection and Maintenance Plan for Casitas Crane Engine* as required by Rule 333, Section F.

(v) Portable Analyzer Monitoring. The permittee shall perform portable analyzer NO_x and CO monitoring each calendar quarter in which a source test is not performed and the engine is operated in excess of 20 hours. The compliance procedures outlined in Section F.3 of Rule 333 shall be followed. Portable analyzer instrument readings shall not exceed the limits specified in Table 4.1 of this permit.

(vi) Source Testing. Source testing shall be required for NO_x, CO, and ROC if the result of a portable analyzer reading exceeds a threshold of 36 ppmvd NO_x @ 15% O_2, unless compliance with this threshold is demonstrated by a retest within 15 days of the initial reading. A source test shall be conducted within 60 days of the initial reading if triggered

[4] The hours of operation, along with the engine horsepower rating and BSFC value of this engine, a fuel correction factor of 1.06, and a high heating value of 137,000 Btu/gal will be used to determine the number of gallons of fuel consumed per time period.

by these criteria. If the engine demonstrates compliance with the NO_x, CO, and ROC emission limits of this permit in a source test, the engine shall not be subject to another source test for two years from the date of the initial compliant source test. After two years, source testing may again be triggered based on the result of a portable analyzer reading, unless compliance is demonstrated by a retest within 15 days of the initial reading. If the engine does not demonstrate compliance with the NO_x, CO, and ROC emission limits of this permit in any source test, it shall be source tested every two years thereafter.

(vii) The emission control systems associated with the crane engine shall be monitored to ensure compliance with of Condition 9.C.1(b)(v).

(d) **Recordkeeping.** Chevron shall record and maintain the information listed below. All logs shall be available to the District upon request. Chevron shall keep all such logs for a minimum of three years from the date of information collection and log entry. Log entries shall be retained on-site either at a central location or at the engine's location, and made immediately available to the District staff upon request.

(i) Operating Hours. A log shall be maintained that details the number of operating hours and days for each month that the engine is operated and the cumulative total annual hours.

(ii) Fuel Use. The total amount of diesel fuel combusted in the engine shall be recorded on a monthly and annual basis in units of gallons.

(iii) Diesel Fuel Purchase. The owner or operator shall retain fuel purchase records that demonstrate the fuel added to the engine, or to any fuel tank directly attached to the engine, meet the requirements of the ATCM.

(iv) Engine Inspection and Maintenance Logs. IC engine inspection and maintenance logs shall be maintained consistent with the reporting requirements incorporated in the *Internal Combustion Engine Inspection and Maintenance Plan for Casitas Crane Engine*.

(v) Portable Analyzer Monitoring Results. Results of the portable analyzer monitoring required by Rule 333.

(vi) Source Test Reports. Source test reports for all District-required stack emission tests

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

(f) **Temporary Engine Replacements - DICE ATCM.** Any reciprocating internal combustion engine subject to this permit and the stationary diesel ATCM may be replaced temporarily only if the requirements listed herein are satisfied.

(i) The permitted engine that is being temporarily replaced is in need of routine repair or maintenance.

(ii) The permitted engine does not have a cracked block, unless the block will be replaced under manufacturer's warranty.

(iii) Replacement parts are available for the permitted engine.

(iv) The permitted engine is returned to its original service within 180 days of installation of the temporary engine.

(v) The temporary replacement engine has the same or lower manufacturer rated horsepower and same or lower potential to emit of each pollutant as the permitted engine. At the written request of the permittee, the District may approve a replacement engine with a larger rated horsepower if the proposed temporary engine has manufacturer guaranteed emissions (for a brand new engine) or source test data (for a previously used engine) less than or equal to the permitted engine.

(vi) The temporary replacement engine shall comply with all rules and permit requirements that apply to the permitted engine.

(vii) For each permitted engine to be temporarily replaced, the permittee shall submit a completed *Temporary IC Engine Replacement Notification* form (Form ENF-94) within 14 days of the temporary engine being installed. This form may be sent hardcopy, or can be e-mailed (e-mail: enfr@sbcapcd.org) to the District (Attn: Engineering Supervisor).

(viii) Within 14-days of returning the original permitted engine to service, the permittee shall submit a completed *Temporary IC Engine Replacement Report* form (Form ENF-95). This form may be sent hardcopy, or can be e-mailed (e-mail: enfr@sbcapcd.org) to the District (Attn: Engineering Supervisor).

(ix) Any engine in temporary replacement service shall be immediately shut down if the District determines that the requirements of this condition have not been met. This condition does not apply to engines that have experienced a cracked block (unless under manufacturer's warranty), to engines for which replacement parts are no longer available, or new engine replacements. Such engines are subject to the provisions of New Source Review..

(g) **Notification of Non-Compliance.** Owners or operators who have determined that they are operating their stationary diesel-fueled engine(s) in violation of the requirements specified in Sections (e) (1) and (e)(2) of the ATCM shall notify the District immediately upon detection of the violation and shall be subject to District enforcement action.

C.2 **Solvent/Coating Use.** The following equipment is included in this emissions unit category:

Table C.8-1

District ID #	Equipment Item Name, Category, etc.
None	Solvents - Cleaning/Degreasing
None	Surface Coating (*including solvents used as thinners)*

(a) **Emission Limits.** The solvent emission limits outlined in District Rule 317.B shall apply and are enforceable for the entire stationary source.

(b) **Operational Limits.**

(i) *Containers* - 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.

(ii) *Materials* - 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.

(iii) *Solvent Leaks* - 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 discernable continuous flow of solvent.

(iv) *Recovery Plan* - Chevron 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. Chevron 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. Also, the ultimate fate of the reclaimed solvents must be stated in the Plan.

(c) **Recordkeeping.** The permittee shall record and maintain the information listed below. All logs shall be available to the District upon request. Chevron shall keep all such logs for a minimum of three (3) years from the date of information collection and log entry. Log entries shall be retained on-site, either at a central location or at the equipment's location, and made immediately available to the District staff upon request.

(i) amounts used;
(ii) the percentage of ROC by weight (as applied);
(iii) the solvent density; the amount of solvent reclaimed for District-approved disposal;
(iv) whether the solvent is photochemically reactive; and,
(v) the resulting emissions to the atmosphere in units of pounds per month and pounds per day (based on the number of days in that month);
(vi) Product sheets (MSDS or equivalent) detailing the constituents of each solvent shall be maintained in a readily accessible location at the Gas Plant;

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

C.3 **Source Testing.** The following source testing provisions shall apply:

(a) Chevron shall conduct source testing of air emissions and process parameters listed in Section 4.10 and Table 4.1. The testing frequency is stipulated in permit condition 9.C.1(c)(vi) of this permit. More frequent source testing may be required if the equipment does not comply with permitted limitations or if other compliance problems, as determined by the District, occur.

(b) Chevron shall submit a written source test plan to the District for approval at least thirty (30) calendar days prior to initiation of each source test. The source test plan shall be prepared consistent with the District's *Source Test Procedures Manual* (revised May 1990 and any subsequent revisions). Chevron shall obtain written District approval of the source test plan prior to commencement of source testing. The District shall be notified at least fourteen (14) calendar days prior to the start of source testing activity to arrange for a mutually agreeable source test date when District personnel may observe the test.

(c) A source test for an item of equipment shall be performed on the scheduled day of testing (the test day mutually agreed to) unless circumstances beyond the control of the operator prevent completion of the test on the scheduled day. Such circumstances include mechanical malfunction of the equipment to be tested, malfunction of the source test equipment, delays in source test contractor arrival and/or set-up, or unsafe conditions on site. Except in cases of an emergency, the operator shall seek and obtain District approval before deferring or discontinuing a scheduled test, or performing maintenance on the equipment item on the scheduled test day. Once the sample probe has been inserted into the exhaust stream of the equipment unit to be tested (or extraction of the sample has begun), the test shall proceed in accordance with the approved source test plan. In no case shall a test run be aborted except in the case of an emergency or unless approval is first obtained from the District. If the test cannot be completed on the scheduled day, then the test shall be rescheduled for another time with prior authorization by the District. Failing to perform the source test of an equipment item on the scheduled test day without a valid reason and without District's prior authorization, except in the case of an emergency, shall constitute a violation of this permit. If a test is postponed due to an emergency, written documentation of the emergency event shall be submitted to the District by the close of the business day following the scheduled test day.

(d) Source test results shall be submitted to the District within forty-five (45) calendar days following the date of source test completion and shall be consistent with the requirements approved within the source test plan. Source test results shall demonstrate compliance with emission rates in Section 5 and applicable permit conditions. Any District-certified IC Engine source test result that indicates the applicable Rule 333, or PTO emission limitations have been exceeded shall constitute a violation of Rule 333 and this PTO. All District costs associated with the review and approval of all plans and reports and the witnessing of tests shall be paid by Chevron as provided for by District Rule 210. The District may, at its discretion, extend the deadlines noted above.

C.4 **Semi-Annual Monitoring/Compliance Verification Reports.** *Twice a year*, Chevron shall submit a compliance verification report to the District. A complete PDF electronic copy of these reports shall be in a format approved by the District. Each report shall be used to verify compliance with the prior two calendar quarters. The first report shall cover calendar quarters 1 and 2 (January through June) and shall be submitted no later than September 1. The second report shall cover calendar quarters 3 and 4 (July through December) and shall be submitted no later than March 1. Each report shall contain information necessary to verify compliance with the emission limits and other requirements of this permit (if applicable for that quarter). These reports shall be in a format approved by the District. All logs and other basic source data not included in the report shall be available to the District upon request. The second report shall also include an annual report for the prior four quarters. Pursuant to Rule 212, the annual report shall include a completed *District Annual Emissions Inventory* questionnaire, or submitted electronically via the District web site. The reports shall include the following information:

(a) *Diesel-Fired Internal Combustion Engine*

(i) The hours of operation and days of operation each month and the cumulative annual hours.

(ii) The amount of fuel combusted in the engine each month.

(iii) The heating value of all diesel fuel, in units of Btu/gal

(iv) Records of each engine inspection per the *IC Engine Inspection and Maintenance Plan for Casitas Crane Engine*.

(v) Results of the portable analyzer monitoring required by Rule 333 and specified in Condition 9.C.1(c)(v).

(vi) Summary results of any compliance emission source testing performed during the reporting period.

(vii) IC engine operations logs, including inspection results, consistent with the requirements of Rule 333.J.

(b) *Solvent/Coating Usage*.

(i) *Solvent Cleaning Degreasing*: On a monthly basis: the amount of solvent used; the percentage of ROC by weight (as applied); the solvent density; the amount of solvent reclaimed; whether the solvent is photochemically reactive; and, the emissions of ROC and photochemically reactive solvents to the atmosphere in units of pounds per month.

(ii) *Surface Coating /Maintenance*: On a monthly basis: the amount of coatings and solvents used; the percentage of ROC by weight in the coatings (as applied); the solvent density;

the amount of solvent reclaimed; whether the solvent is photochemically reactive; and, the resulting emissions of ROC and photochemically reactive solvents to the atmosphere in units of pounds per month.

(c) *General Reporting (Semi-annual and Annual) Requirements*.

(i) On a daily average (and annual, when applicable) basis, provide the emissions from each permitted emission unit for each criteria pollutant, as well as a daily average (and annual, when applicable) emissions summary for each criteria pollutant. Calculations for the daily averaging shall cover the previous 6-month period. For the crane engine, all NOx and ROC emissions data and fuel parameters (fuel use, fuel S content and gross fuel heating value) and, where relevant, actual emission factors for NOx and ROC as observed during source testing.

(ii) On a quarterly (and annual, when applicable) basis, the emissions from each exempt emission unit for each criteria pollutant. Also, include a quarterly (and annual, when applicable) emissions summary for each criteria pollutant.

(iii) A copy of the Rule 202 De Minimis Log for the stationary source.

C.5 **Permitted Equipment.** Only those equipment items listed in Attachment 10.5 are covered by the requirements of this permit and District Rule 201.B.

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

(i) Process Monitor Calibration and Maintenance Plan *(Revised 3/1/2010)*
(ii) Risk Reduction Audit and Plan *(4/4/2007)*
(iii) ICE Inspection and Maintenance Plan for Casitas Crane *(6/1/2015)*

C.7 **Best Available Control Technology.** The permittee shall apply emission control technology and plant design measures that represent Best Available Control Technology ("BACT") to the operation of the equipment/facilities as described in this permit and the District's Permit Evaluation for this permit. Table 4.2 and the Emission Limitations, Operational Restrictions, Monitoring, Recordkeeping and Reporting Conditions of this permit define the specific control technology and performance standard emission limits for BACT. The BACT shall be in place, and shall be operational at all times, for the life of the project. BACT related monitoring, recordkeeping and reporting requirements are defined in those specific permit conditions.

AIR POLLUTION CONTROL OFFICER

June 10, 2024

DATE

Notes:

(a) This permit supersedes PTO 7996-R12
(b) Permit Reevaluation Due Date: April 2027

Attachments

10.1 Emission Calculation Documentation
10.2 Emission Calculation Spreadsheets
10.3 IDS Database Emission Tables
10.4 List Fee Calculations
10.5 Equipment List

10.1 EMISSION CALCULATION DOCUMENTATION

This attachment contains all relevant emission calculation documentation used for the emission tables in Section 5. Refer to Section 4 for the general equations. Detailed calculation spreadsheets are attached as Attachment 10.2.

Reference A - Crane Engine

Emission factors are based on mass balance for SO_x and USEPA Tier 4 Final emission factors for NO_x, ROC, CO and PM, with an applied NTE emission factor multiplier of 1.50 for NO_x and ROC, and an NTE multiplier of 1.25 for CO.

The SOx emissions are based on the State's ATCM, which sets restrictions on the sulfur content of the diesel fuel, at 15 parts per million by weight (.0015%).

The PM emission factor is limited by the State's ATCM limit of 0.01 g/bhp-hr.

Reference B - Solvents/Coatings

- Any solvents not used to thin surface coatings are included in "solvent-cleaning/ degreasing" emissions unit category
- Daily and annual estimated emission rates are not computed.

10.2 Emission Calculation Spreadsheets

DICE PRIME EMISSION CALCULATIONS (EPA TIER BASIS) (Ver. 1.0)

Attachment: A-1
Permit Number: PTO 7996-R13
Facility: Carpinteria Gas Plant

Engine Information

Data	*Value*	*Units*	*Reference*
Engine Rating	200	bhp	Permit Application
Engine Type	Turbocharged / Aftercooled	None	Permit Application
Brake Specific Fuel Consumption (HHV Basis)	7,100	Btu/bhp-hr	Previous Input, SBCAPCD TRD Table 6
Maximum Daily Fuel Usage	25	gal/day	Permit Application
Maximum Annual Fuel Usage	2500	gal/yr	Permit Application
EPA Tier	4	N/A	Permit Application

Fuel Properties

Data	*Value*	*Units*	*Reference*
Higher Heating Value	137,000	Btu/gal	SBCAPCD TRD Table 5 for Diesel Fuel
Sulfur Content	0.0015	% Weight	CARB Diesel

EPA Tier 3 or Lower Not to Exceed Factor Inputs

Pollutant	*Not to Exceed Factor*	*Reference*
NO_x	1.25	SBCAPCD Default / Manufacturer Specifications
ROC	1.25	SBCAPCD Default / Manufacturer Specifications
CO	1.25	SBCAPCD Default / Manufacturer Specifications

EPA Tier 4T and 4 Not to Exceed Factor Inputs

Question	*Answer*
NO_x engine family standard less than 2.50 g/kW-hr (1.86 g/bhp-hr) without using ABT^a?	Yes
NO_x engine family emission limit less than 2.50 g/kW-hr (1.86 g/bhp-hr)?	Yes
NO_x + NMHC engine family emission limit less than 2.70 g/kW-hr (2.01 g/bhp-hr)?	No

Pollutant	*Not to Exceed Factor*	*Reference*
NO_x	1.50	Based on Previous Inputs
ROC	1.50	Based on Previous Inputs
CO	1.25	SBCAPCD Default

EPA Tier Emission Factors

Pollutant	*g/bhp-hr*	*Reference*
NO_x	0.3000	EPA Tier 4 for 175 hp to 299.99 hp engines
ROC	0.1399	EPA Tier 4 for 175 hp to 299.99 hp engines
CO	2.6000	EPA Tier 4 for 175 hp to 299.99 hp engines
SO_x	0.0055	EPA AP-42, Table 3.3-2, Calculated Value
PM	0.0200	EPA Tier 4 for 175 hp to 299.99 hp engines
PM_{10}	0.0200	AP-42 Chapters 3.2 and 3.3
$PM_{2.5}$	0.0200	AP-42 Chapters 3.2 and 3.3

Not to Exceed Emission Factors

Pollutant	*g/bhp-hr*	*Reference*
NO_x	0.4500	EPA Tier 4 for 175 hp to 299.99 hp engines multipled by NTE factor
ROC	0.2099	EPA Tier 4 for 175 hp to 299.99 hp engines multipled by NTE factor
CO	3.2500	EPA Tier 4 for 175 hp to 299.99 hp engines multipled by NTE factor
PM	0.0200	EPA Tier 4 for 175 hp to 299.99 hp engines multipled by NTE factor
PM_{10}	0.0200	AP-42 Chapters 3.2 and 3.3
$PM_{2.5}$	0.0200	AP-42 Chapters 3.2 and 3.3

Not to Exceed Pollutant Stack Concentrations

Pollutant	*ppmv @ 15% Oxygen*	*Reference*
NO_x	36	Calculated Value
ROC	48	Calculated Value
CO	425	Calculated Value

DICE Potential to Emit

Pollutant	lb/day	TPY
NO_x	0.48	0.02
ROC	0.22	0.01
CO	3.46	0.17
SO_x	0.01	0.00
PM	0.02	0.00
PM_{10}	0.02	0.00
$PM_{2.5}$	0.02	0.00

Processed By: JJM Date: 1/1/2024

Notes:

a. ABT is defined as averaging, timing, and banking

10.3 IDS Tables

Table 1
Permitted Potential to Emit (PPTE)

	NO_X	ROC	CO	SO_X	TSP	$PM_{2.5/10}$
PTO 7996 - R13						
Lb/day	0.48	0.22	3.46	0.01	0.02	0.02
Tons/year	0.02	0.01	0.17	0.00	0.00	0.00

Table 2
Facility Potential to Emit (FPTE)

	NO_X	ROC	CO	SO_X	TSP	$PM_{2.5/10}$
PTO 7996 - R13						
Lb/day	0.48	0.22	3.46	0.01	0.02	0.02
Tons/year	0.02	0.01	0.17	0.00	0.00	0.00

Table 3
Stationary Source Potential to Emit (SSPTE)

	NO_X	ROC	CO	SO_X	TSP	$PM_{2.5/10}$
Chevron Carpinteria Stationary Source						
Lb/day	0.48	0.22	3.46	0.01	0.02	0.02
Tons/year	0.02	0.01	0.17	0.00	0.00	0.00

10.4 Fee Calculations

The District triennial reevaluation fees are based on the Rule 210 Fee Schedule.

air pollution control district
SANTA BARBARA COUNTY

FEE STATEMENT
PTO No. 07996 - R13
FID: 00027 Carpinteria Gas Plant / SSID: 00027

Device Fee

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
395030	Crane Engine	A3	1.420	644.42	Per 1 million Btu input	No	1	1.000	915.08	0.00	0.00	915.08
	Device Fee Sub-Totals =								**$915.08**	**$0.00**	**$0.00**	
	Device Fee Total =											**$915.08**

Permit Fee

Fee Based on Devices **$915.08**

Fee Statement Grand Total = $915

Notes:

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

10.5 Equipment List

Reeval 07996 R13 / FID: 00027 Carpinteria Gas Plant / SSID: 00027

A PERMITTED EQUIPMENT

1 Crane Engine

Device ID #	395030	*Maximum Rated BHP*	200.00
Device Name	Crane Engine	*Serial Number*	74557842
Engine Use	Mechanical Work	*EPA Engine Family Name*	KCEXL04.5AAL
Manufacturer	Cummins	*Operator ID*	
Model Year	2019	*Fuel Type*	CARB Diesel - ULSD
Model	QSB4.5		
DRP/ISC?	No	*Healthcare Facility?*	No
Daily Hours	25.00	*Annual Hours*	2500
Location Note			
Device Description	Tier 4, turbocharged/aftercooled diesel-fired internal combustion engine powering the Casitas Pier Crane. Fuel usage is estimated by system integral to the engine.		

apcd air pollution control district
SANTA BARBARA COUNTY

June 10, 2024

Certified Mail 9171 9690 0935 0291 5730 20

Return Receipt Requested

Rebecca Trujillo
Chevron U.S.A., Inc.
3916 State Street, Suite 200
Santa Barbara, CA 93105

FID: 00027
Permit: P 07996 - R13
SSID: 00027

Re: Notice of Final Permit to Operate 07996 - R13 Issuance
Fee Due: $ 915

Dear Rebecca Trujillo:

Enclosed is the final Permit to Operate (PTO) No. 07996 - R13 for the Carpinteria Gas Plant at 5675 Carpinteria Avenue.

Please carefully review the enclosed documents to ensure that they accurately describe your facility and that the conditions are acceptable to you.

This PTO is for the triennial (every three years) reevaluation of existing air quality permits at your facility, as required by Air Pollution Control District (District) Rule 201. This permit may contain new conditions added to ensure compliance with current laws and updated regulations.

You should become familiar with all District rules pertaining to your facility. This permit does not relieve you of any requirements to obtain authority or permits from other governmental agencies.

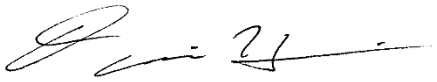
This permit requires you to:

- Pay a **fee** of $915, which is due immediately and is considered late after 30 calendar days from the date stamped on the permit. Pursuant to District Rule 210.IV.B, no appeal shall be heard unless all fees have been paid. See the attached invoice for more information.
- Follow the conditions listed on your permit. Pay careful attention to the recordkeeping and reporting requirements.
- Ensure that a copy of the enclosed permit is posted or kept readily available near the permitted equipment.
- Promptly report changes in ownership, operator, or your mailing address to the District.

If you are not satisfied with the conditions of this permit, **you have thirty (30) calendar days from the date of this permit issuance notice to appeal this permit to the Air Pollution Control District Hearing Board** (ref: California Health and Safety Code, §42302.1). Any contact, discussions, or meetings with District staff regarding the terms of this permit during or after permit issuance do not constitute an appeal under Rule 209 or the California H&SC and will not stop or alter the 30-day appeal period. Only a formal application to the Hearing Board can initiate an appeal. You may contact the Clerk of the Hearing Board for specific information concerning appeal initiation and procedures.

Please include the facility identification (FID) and permit numbers as shown at the top of this letter on all correspondence regarding this permit. If you have any questions, please contact William Sarraf of my staff at (805) 979-8312.

Sincerely,



David Harris, Division Manager
Engineering Division

enc: Final PTO 07996 - R13
Final Permit Evaluation
Invoice # R 07996 - R13

cc: Carpinteria Gas Plant 00027 Project File
Engr Chron File
Accounting (Invoice only)
James Menno (Cover letter only)
William Sarraf

\\sbcapcd.org\shares\Groups\ENGR\WP\Oil&Gas\Major Sources\SSID 00027 Chevron - Carpinteria\Reevals\PTO 7996 R13\Reeval 07996 R13 - Final Letter - 6-3-2024.docx

air pollution control district
SANTA BARBARA COUNTY

260 N. San Antonio Rd, Suite A
Santa Barbara, CA 93110-1315

Invoice: R 07996 - R13
Date: June 10, 2024
Terms: Net 30 Days

500000/6600/3282

INVOICE

BILL TO:	FACILITY:
Rebecca Trujillo Chevron U.S.A., Inc. (101056) 3916 State Street, Suite 200 Santa Barbara, CA 93105	Carpinteria Gas Plant 00027 5675 Carpinteria Avenue Carpinteria

Permit: Permit to Operate (PTO) No. 07996 - R13

Fee Type: Permit Reevaluation Fee (see the Fee Statement in your permit for a breakdown of the fees)

Amount Due: $ 915

REMIT PAYMENTS TO THE ABOVE ADDRESS
Please indicate the invoice number R 07996 - R13
on your remittance.

IF YOU HAVE ANY QUESTIONS REGARDING YOUR INVOICE PLEASE CONTACT
OUR ADMINISTRATION DIVISION AT (805) 979-8050

The District charges $25 for returned checks. Other penalties/fees may be incurred as a result of returned checks and late payment (see District Rule 210). Failure to pay this Invoice may result in the cancellation or suspension of your permit. Please notify the District regarding any changes to the above information