

Santa Barbara County Air Pollution Control District

Permitting Process

Why Issue Permits?

- * Protect public health
- * Ensure we meet commitments made by the Clean Air Plan
- * Keep track of emission sources
- * Make sure people are following the rules

What Do We Permit?

- * Stationary Sources of air pollution not exempt by State law and District Rules
- * Gas stations and dry cleaners
- * Asphalt plants and concrete batch plants
- * Auto body shops and metal parts painters
- * Medical device and electronic parts manufacturers
- * Oil & gas production and processing

Purpose of the Permit

- * Permits are legally binding documents that include enforceable conditions that the source must comply with
- * Establishes limits on the types and amounts of emissions allowed

Purpose of the Permit

- * Impose operational limits: hours of operation, throughput, use of control equipment
- * Establishes monitoring, recordkeeping and reporting requirements
- * Establish special start-up and ongoing source testing and sampling procedures

Types of Permits

- * Authority to Construct (ATC)
- * Permit to Operate (PTO)
- * Part 70 Federal Operating Permit
- * Various Modifications (ATC Mod, ATC/PTO Mod, Part 70 Minor Mod, Part 70 Significant Mod, Part 70 Major Mod)
- * Permit Reevaluation
- * Part 70 Operating Permit Renewal
- * Transfer of Owner/Operator

Permit Process

- * Pre-application meeting (for large projects)
- * ATC application
- * Completeness review
- * CEQA
- * Incompleteness letter
- * Completeness letter
- * Draft ATC

Permit Process (continued)

- * Public Review (large projects only)
- * Issue ATC
- * Source Compliance Demonstration Period (SCDP)/Part 70 permit application
- * PTO Application
- * Issue PTO
- * Permit reevaluation process
- * Part 70 re-issuance process

Lead Agency Coordination

- * APCD permit must be consistent with lead agency permit
- * APCD may be lead or responsible agency
- * If responsible, the APCD will provide input to CEQA review
- * If lead, the APCD must determine the level of CEQA review required: exempt, negative declaration, EIR

Parts of a Permit

- * Overview of the source operation
- * Identify Federal, State, and Local requirements
- * Engineering analysis of emission sources
- * Air Quality Impact Analysis
- * Consistency with Plans and Lead Agency approval
- * Permit Conditions

**PERMIT TO OPERATE No. 5651
AND
PART 70 OPERATING PERMIT No. 5651**

**EXXON – SYU PROJECT
LAS FLORES CANYON OIL & GAS PLANT**

**12000 CALLE REAL, GOLETA
SANTA BARBARA COUNTY, CA**

OPERATOR

EXXONMOBIL PRODUCTION COMPANY (“EXXONMOBIL”)

OWNERSHIP

EXXONMOBIL PRODUCTION COMPANY (“EXXONMOBIL”)

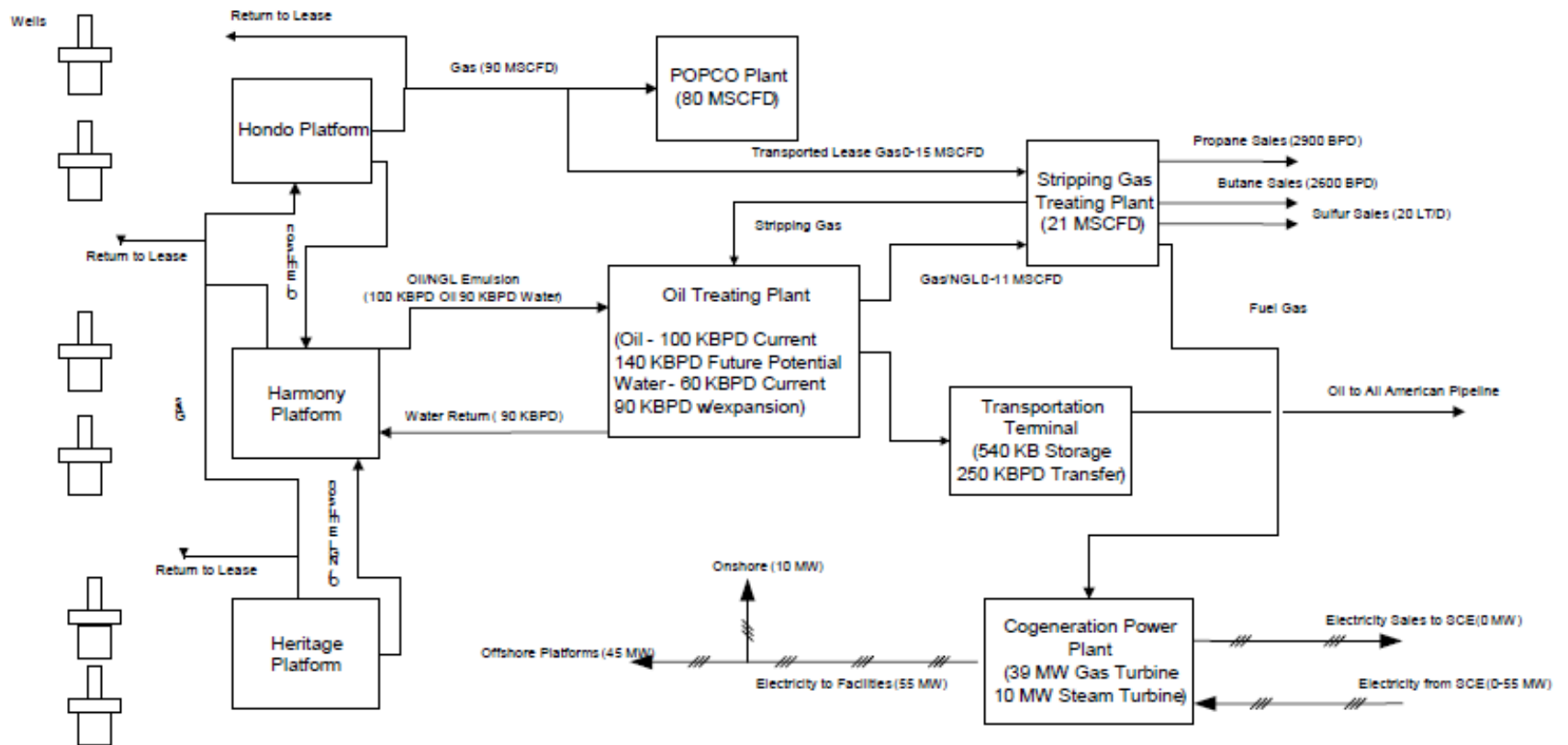
**SANTA BARBARA COUNTY
AIR POLLUTION CONTROL DISTRICT**

JUNE 12, 2009

Overview of the Source

- * Location
- * Process description
- * Permit history

Figure 2.1 Exxon – SYU Offshore/Onshore Facility Overview



Note: In these figures MSCF = million standard cubic feet

Identify Applicable Requirements

- * Federal, State, and Local
- * Rule exemptions claimed
- * Compliance history

Engineering Analysis

- * Identify emissions units
- * Specify operating modes
- * Describe emission control equipment
- * Calculate emissions
- * Specify monitoring and sampling procedures

Operating Description

Equipment Item	Description			Device Specifications				Usage Data			Maximum Operating Schedule				
		Exxon ID #	APCD DeviceNo	Fuel	HHV	%S	Size	Units	Capacity	Units	Load	hr	day	qtr	year
Combustion - Cogen Power Plant: Normal Operations Mode															
Gas Turbine 38.63 MW	ZAN-2501	6585	NG	24	ppmv	S	465.000	MMBtu/hr	460.350	MMBtu/hr	0.99	1	24	2,184	8,742
Heat Recovery Steam Generator	EAL-2601	7865	NG	24	ppmv	S	345.000	MMBtu/hr	140.140	MMBtu/hr	0.41	1	24	2,184	8,742
Turbine Bypass Stack	ZAN-2501	7864	NG	24	ppmv	S	1.0%	of Turb Exh	4.650	MMBtu/hr	0.01	1	24	2,184	8,742
Combustion - Cogen Power Plant: HRSG Only Mode															
Heat Recovery Steam Generator	EAL-2601	7865	NG	24	ppmv	S	345.000	MMBtu/hr	345.000	MMBtu/hr	1.000	1	24	2,184	8,742
Combustion - Cogen Power Plant: Planned Startup/Shutdown Mode															
Combined CPP + Bypass Stacks (22 MW)	ZAN-2501/ EAL-2601	7866	NG	24	ppmv	S	100%	of Turb Exh	308.821	MMBtu/hr	0.66	1	2	6	18
SGTP - Incinerator															
TGCU/Mercox Vent Incinerator	EAL-4602	7867	TG/NG	--	--	--	12.320	MMBtu/hr	134.05	kscfh	--	1	24	2,190	8,760
TGCU Incinerator (w/out Mercox vent)	EAL-4603	7868	TG/NG	--	--	--	12.020	MMBtu/hr	133.68	kscfh	--	1	24	2,190	8,760
Planned Startup/Shutdown/Maintenance	EAL-4603	7869	TG/NG	--	--	--	12.320	MMBtu/hr	--	--	--	1	24	84	84
Combustion - Thermal Oxidizer															
Purge and Pilot	EAW-1601	102738	NG	24	ppmv	S	1,200	Btu/scf	4.00	kscfh		1	24	2,190	8,760
Planned - Continuous LP	EAW-1601	102739	NG	500	ppmv	S	1,200	Btu/scf	1.414	kscfh		1	24	2,190	8,760
Planned - Continuous AG	EAW-1601	102740	NG	239	ppmv	S	1,153	Btu/scf	0.245	kscfh		1	24	2,190	8,760
Planned - Other	EAW-1601	102741	NG, SG	varies	ppmv	S	36' x 115'	Dia x Ht						varies	
Unplanned - Other	EAW-1601	102742	SG, AG	varies	ppmv	S	36' x 115'	Dia x Ht						varies	

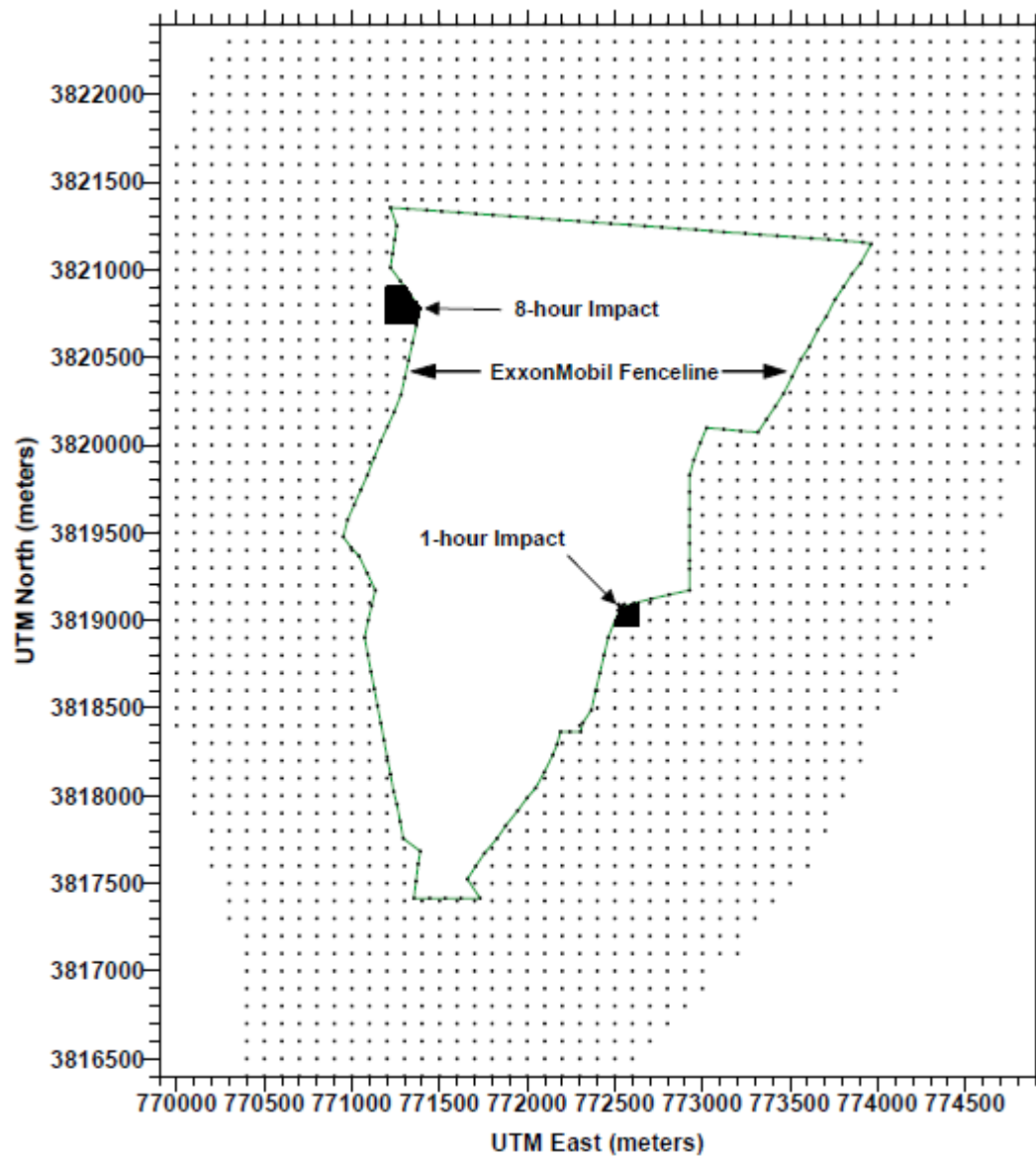
Permitted Emissions

D. Annual

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Cogeneration Power Plant	71.95	14.55	74.31	8.94	41.79	33.43
SGTP - Incinerator	6.15	0.21	4.96	19.70	4.21	3.37
Thermal Oxidizer	5.24	0.29	4.39	10.85	0.40	0.40
Internal Combustion Engine	0.26	0.02	0.06	0.00	0.02	0.02
Crew Boats	11.43	0.74	3.01	0.01	0.82	0.79
Supply Boats	1.79	0.10	0.39	0.00	0.15	0.15
Pigging Equipment/Compressor Vents	-	0.03	-	-	-	-
Tanks/Sumps/Separators	-	6.30	-	-	-	-
Fugitive Components	-	41.79	-	-	-	-
Solvent Usage	-	1.00	-	-	-	-
Totals (IPY)	96.82	65.04	87.12	39.50	47.39	38.15

HRA and AQIA

- * Health Risk Assessment
- * Air Quality Impact Analysis
- * Potential for nuisance



**Figure 3-1: Maximum Impact Receptors for AAQS and Increment Modeling
CPP Testing Operations**

Plan Consistency

Clean Air Plan

On August 16, 2007, the APCD Board adopted the 2007 Clean Air Plan to chart a course of action that provided for ongoing maintenance of the federal eight-hour ozone standard through the year 2014 as well as the expeditious attainment of the state one-hour ozone standard. These plans were developed for Santa Barbara County as required by both the 1998 California Clean Air Act and the 1990 Federal Clean Air Act Amendments. Santa Barbara County has now attained the state one-hour ozone standard but does not attain the state eight-hour ozone standard.

Offsets

Particulate Matter (PM)

NEI EMISSIONS FROM PROJECT	Particulate Matter	
	TPQ	TPY
Las Flores Canyon ^(a)	12.08	47.78
Total NEI:	12.08	47.78

EMISSION REDUCTION SOURCES (NEI)	Emission Reductions		Distance Factor ^(b)	Offset Credit	
	TPQ	TPY		TPQ	TPY
1. OS&T Shutdown	3.00	12.00	1.2	2.50	10.00
2. SO _x to PM Mitigation ^(c)	10.01	40.05	1.2	8.34	33.38
3. Hondo Crew Boat Reductions	1.00	4.00	1.2	0.83	3.33
4. Hondo and OS&T Supply Boat Reductions	0.25	1.00	1.2	0.21	0.83
5. Hondo Turbines	0.25	1.00	1.2	0.21	0.83
Total Offsets: ^(d)	14.51	58.05		12.09	48.38

Lead Agency Consistency

FDP Condition XII-2 - Authority to Construct: Requirement for an Authority to Construct (ATC) prior to any construction, including grading begins. The issuance of the APCD ATC Permit (before construction) fulfilled this condition.

FDP Condition XII-3.a - Consolidation: Requirement for consolidation of facilities in Las Flores and Corral Canyons. The air quality impact analysis modeling (Section 6.1.8) performed as part of ATC 5651 showed no violations of air quality standards from the SYU project operating in conjunction with consolidated facilities in Las Flores and Corral Canyons, with the exception of exacerbating an existing violation of the 24-hour PM_{10} standard.

Administrative Conditions

Standard Administrative Conditions

Condition Acceptance. Acceptance of this operating permit by ExxonMobil shall be considered as acceptance of all terms, conditions, and limits of this permit. *[Re: ATC 5651, PTO 5651]*

Grounds for Revocation. Failure to abide by and faithfully comply with this permit or any Rule, Order, or Regulation may constitute grounds for revocation pursuant to California Health & Safety Code Section 42307 *et seq.* *[Re: ATC 5651, PTO 5651]*

Generic Conditions

Visible Emissions (Rule 302). ExxonMobil 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 Ringelmann 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.
- (c) ExxonMobil shall determine compliance with the requirements of this Condition/Rule and Condition C.44. [*Re: APCD Rule 302*]

Nuisance (Rule 303). No pollutant emissions from any source at ExxonMobil shall create nuisance conditions. No operations shall endanger health, safety or comfort, nor shall they damage any property or business. [*Re: APCD Rule 303*]

Equipment Specific Conditions

Emission Limits

- (a) **Emission Limits:** Mass emissions from the SRU TGCU Waste Gas Incinerator (“WGI”) shall not exceed the limits listed in Tables 5.3 and 5.4. Compliance shall be based on sliding-one hour readings of 15-minute averages (or less) through the use of process monitors (e.g., fuel use meters) and CEMS; and the monitoring, recordkeeping and reporting condition of this permit. For pollutants without CEMS monitors, the permitted emission factors in Table 5.2 shall be used. In addition, the following specific emission limits apply:
- (i) **BACT** – Except during the startup, shutdown or maintenance modes (as defined herein), the emissions, after control, from the WGI shall not exceed the BACT limits listed below and in Table 4.2 (*BACT Performance Standards*). Compliance shall be based on annual source testing for all pollutants. For NO_x and SO_x only, compliance with the emission concentrations listed in Table 4.2 shall be determined on a continuous basis using CEMS (based on a 60-minute clock average). Compliance for the SO_x shall also be based on the APCD-approved Sulfur Removal Efficiency Plan.

BACT for the Removal of H ₂ S through the SRU	
OPERATIONAL MODE	REMOVAL EFFICIENCY (% BY MASS AS H ₂ S)
All SRU Inlet Feed Rates to 20 LTD ¹¹	The more stringent of: 99.9% H ₂ S by mass across SRU; or 100 ppmvd residual H ₂ S in Tail Gas;

Equipment Specific Conditions

Operational Limits

- (i) *Thermal DeNO_x* – The Thermal DeNO_x system shall be used at all times the WGI is in operation, except the WGI may be operated without the Thermal DeNO_x system with APCD approval during source testing. The Thermal DeNO_x system shall meet a minimum NO_x control efficiency of 50 percent (mass basis). Compliance shall be based on source testing and by maintaining the NO_x outlet set-point for the Thermal DeNO_x system at 9 ppmv. ExxonMobil may request APCD written approval to revise the NO_x outlet set-point value to another value based on source test results.
- (ii) *Low-NO_x Burners* - Low-NO_x burners shall be used at all times when the WGI is in operation.

Equipment Specific Conditions Monitoring Requirements

- (i) Continuously monitor the fuel gas using H₂S and HHV analyzers.
- (ii) Perform quarterly total sulfur content measurements of the fuel gas using ASTM or other APCD-approved methods. ExxonMobil shall utilize APCD-approved sampling and analysis procedures.
- (iii) ExxonMobil shall implement the APCD-approved Sulfur Removal Efficiency Plan which describes the monitoring and sampling procedures for determining sulfur removal efficiency for the SRU as defined in NSPS Subpart LLL and in the BACT Performance Standards (Tables 4.1 and 4.2).

Equipment Specific Conditions Recordkeeping Requirements

- (i) The daily, quarterly and annual heat input in units of million Btu for the fuel gas to the WGI. In addition, the five highest hourly heat input rates per month in units of MMBtu/hr.
- (ii) The daily, quarterly and annual Inlet Tail Gas Flow Rate from the TGPU Amine Contactor in units of standard cubic feet to the incinerator. In addition, the five highest hourly flow rates per month in units of standard cubic feet per hour.

Equipment Specific Conditions Reporting Requirements

Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the APCD. The report must list all data required by the *Compliance Verification Reports* condition of this permit. [*Re: ATC 5651, PTO 5651, ATC/PTO 5651-01*]

Equipment Specific Conditions

- * Source Testing
- * Process Stream Sampling
- * Continuous Emission Monitoring (CEM)
- * Data Acquisition System (DAS)
- * Documents Incorporated by Reference

District-Only Conditions

- * District Rules that are not Federally enforceable
- * State ATCMs



The permit process is the method by which the District carries out our obligations under the Clean Air Plan and enforces federal, state, and District regulations.

Monitoring, recordkeeping, and reporting requirements of each permit ensure that the emission and operational limits are enforceable.