

Santa Barbara County  
**Air Pollution Control District**

**AUG 15 2011**

Mr. Gerardo Rios  
USEPA - Permits Office (AIR-3)  
75 Hawthorne Street  
San Francisco, CA 94105

FID: 08018  
Permit: AP 13490  
SSID: 01482

Re: Proposed Minor Permit Modification to Platform Harmony Part 70/APCD ATC/PTO 13490

Dear Mr. Rios:

This letter transmits Proposed Part 70 Minor Modification Permit to Operate No. 13490 for the Exxon - SYU Project Stationary Source. Included with this proposed permit is the permit application. The source is a major source of nitrogen oxides.

We plan to issue this permit as final after September 25, 2011 provided your office has not objected to such issuance before this date. If you have any questions regarding this permit, please call Jim Menno of my staff at (805) 614-6787.

Sincerely,

Michael Goldman, Manager  
Engineering & Compliance Division

enc: Proposed Part 70 Minor Modification ATC/PTO 13490  
Application Form for Minor Modification to Platform Harmony 70/APCD PTO 9101

cc: Platform Harmony Project File (Cover letter only)  
ECD Chron File



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EQUIPMENT OWNER:

ExxonMobil Production Company

220113

EQUIPMENT OPERATOR:

ExxonMobil Production Company

EQUIPMENT LOCATION:

Platform Harmony, Parcel OCS P-0190

STATIONARY SOURCE/FACILITY:

Exxon - SYU Project  
Platform Harmony

SSID: 01482  
FID: 08018

AUTHORIZED MODIFICATION:

This permit incorporates existing fugitive emission component leak paths, currently categorized as de minimis at Platform Harmony, into the total permitted fugitive component leak path inventory. The emissions associated with this permit are required to be offset.

EQUIPMENT DESCRIPTION:

The equipment subject to this permit is listed in the table at the end of this permit.

PROJECT/PROCESS DESCRIPTION:

Platform Harmony is an offshore oil and gas platform which produces natural gas and crude oil. Emulsion and produced gas from Platform Harmony are shipped via sub-sea pipelines to onshore processing facilities in Las Flores Canyon approximately 20 miles west of Santa Barbara. Primary oil emulsion and gas separation takes place on Platform Harmony.

CONDITIONS:

**9.A Standard Administrative Conditions**

The following federally enforceable administrative permit conditions apply to Platform Harmony. In the case of a discrepancy between the wording of a condition and the applicable District rule, the wording of the rule shall control.

- A.1 **Condition Acceptance.** Acceptance of this operating permit by ExxonMobil shall be considered as acceptance of all terms, conditions, and limits of this permit. [Re: PTO 9101]
- A.2 **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: PTO 9101]
- A.3 **Defense of Permit.** ExxonMobil agrees, as a condition of the issuance and use of this PTO, to defend at its sole expense any action brought against the District because of issuance of this permit. ExxonMobil shall reimburse the District for any and all costs including, but not limited to, court costs and attorney's fees which the District may be required by a court to pay as a result of such action. The District may, at its sole discretion, participate in the defense of any such action, but such participation shall not relieve ExxonMobil of its obligation under this condition. The District shall bear its own expenses for its participation in the action. [Re: PTO 9101]
- A.4 **Reimbursement of Costs.** All reasonable expenses, as defined in District Rule 210, incurred by the District, District contractors, and legal counsel for all activities that follow the issuance of this PTO permit, including but not limited to permit condition implementation, implementation of Regulation XIII (*Part 70 Operating Permits*), compliance verification and emergency response, directly and necessarily related to enforcement of the permit shall be reimbursed by ExxonMobil as required by Rule 210. [Re: PTO 9101, District Rule 210]
- A.5 **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the District or its agents, ExxonMobil 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. [Re: PTO 9101]
- A.6 **Compliance.** Nothing contained within this permit shall be construed to allow the violation of any local, State or Federal rule, regulation, ambient air quality standard or air quality increment. [Re: PTO 9101]
- A.7 **Consistency with Analysis.** Operation under this permit shall be conducted consistent with all data, specifications and assumptions included with the application and supplements thereof (as documented in the District's project file) and the District's analyses under which this permit is

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issued as documented in the Permit Analyses prepared for and issued with the permit. [Re: PTO 9101]

A.8 **Consistency with State and Local Permits.** Nothing in this permit shall relax any air pollution control requirement imposed on the Santa Ynez Unit Project by:

- (a) The County of Santa Barbara in Final Development Plan Permit 87-DP-32cz and any subsequent modifications;
- (b) The Santa Barbara County Air Pollution Control District in Authority to Construct 5651, Permit to Operate 5651, and any subsequent modifications to either permit; and
- (c) The California Coastal Commission in the consistency determination for the Project with the California Coastal Act. [Re: PTO 9101]

A.9 **Compliance with Department of Interior Permits.** ExxonMobil shall comply with all air quality control requirements imposed by the Department of the Interior in the Development and Production Plan approved for Platform Harmony on September 20, 1985 and any subsequent modifications. Such requirements shall be enforceable by the District. [Re: PTO 9101]

A.10 **Compliance with Permit Conditions.**

- (a) The permittee shall comply with all permit conditions in Sections 9.A, 9.B and 9.C.
- (b) This permit does not convey property rights or exclusive privilege of any sort.
- (c) Any permit noncompliance with sections 9.A, 9.B, or 9.C constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.
- (d) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (e) A pending permit action or notification of anticipated noncompliance does not stay any permit condition.
- (f) Within a reasonable time period, the permittee shall furnish any information requested by the Control Officer, in writing, for the purpose of determining:
  - (1) Compliance with the permit, or
  - (2) Whether or not cause exists to modify, revoke and reissue, or terminate a permit or for an enforcement action.

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- (g) In the event that any condition herein is determined to be in conflict with any other condition contained herein, then, if principles of law do not provide to the contrary, the condition most protective of air quality and public health and safety shall prevail to the extent feasible. [Re: 40 CFR Part 70.6.(a)(6), District Rules 1303.D.1]
- A.11 **Emergency Provisions.** The permittee shall comply with the requirements of the District, Rule 505 (Upset/Breakdown rule) and/or District Rule 1303.F, whichever is applicable to the emergency situation. In order to maintain an affirmative defense under Rule 1303.F, the permittee shall provide the District, in writing, a “notice of emergency” within 2 working days of the emergency. The “notice of emergency” shall contain the information/documentation listed in Sections (1) through (5) of Rule 1303.F. [Re: 40 CFR 70.6(g), District Rule 1303.F]
- A.12 **Compliance Plans.**
- (a) The permittee shall comply with all federally enforceable requirements that become applicable during the permit term in a timely manner.
- (b) For all applicable equipment, the permittee shall implement and comply with any specific compliance plan required under any federally-enforceable rules or standards. [Re: District Rule 1302.D.2]
- A.13 **Right of Entry.** The Regional Administrator of USEPA, the Control Officer, or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises where a Part 70 Source is located or where records must be kept:
- (a) To inspect the stationary source, including monitoring and control equipment, work practices, operations, and emission-related activity;
- (b) To inspect and duplicate, at reasonable times, records required by this Permit to Operate;
- (c) To sample substances or monitor emissions from the source or assess other parameters to assure compliance with the permit or applicable requirements, at reasonable times. Monitoring of emissions can include source testing. [Re: District Rule 1303.D.2]
- A.14 **Severability.** The provisions of this Permit to Operate are severable and if any provision of this Permit to Operate is held invalid, the remainder of this Permit to Operate shall not be affected thereby. [Re: District Rules 103 and 1303.D.1]
- A.15 **Permit Life.** The Part 70 permit shall become invalid three years from the date of issuance unless a timely and complete renewal application is submitted to the District. Any operation of the source to which this Part 70 permit is issued beyond the expiration date of this Part 70 permit and without a valid Part 70 operating permit (or a complete Part 70 permit renewal application) shall be a violation of the CAAA, § 502(a) and 503(d) and of the District rules.
- (a) The permittee shall apply for renewal of the Part 70 permit no later than 6 months before the date of the permit expiration. Upon submittal of a timely and complete renewal

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application, the Part 70 permit shall remain in effect until the Control Officer issues or denies the renewal application. [Re: *District Rule 1304.D.1*]

- A.16 **Payment of Fees.** The permittee shall reimburse the District for all its Part 70 permit processing and compliance expenses for the stationary source on a timely basis. Failure to reimburse on a timely basis shall be a violation of this permit and of applicable requirements and can result in forfeiture of the Part 70 permit. Operation without a Part 70 permit subjects the source to potential enforcement action by the District and the USEPA pursuant to section 502(a) of the Clean Air Act. [Re: *District Rules 1303.D.1 and 1304.D.11, 40 CFR 70.6(a)(7)*]
- A.17 **Prompt Reporting of Deviations.** The permittee shall submit a written report to the District documenting each and every deviation from the requirements of this permit or any applicable federal requirements within 7 days after discovery of the violation, but not later than 6 months after the date of occurrence. The report shall clearly document:
- (a) The probable cause and extent of the deviation,
  - (b) Equipment involved,
  - (c) The quantity of excess pollutant emissions, if any, and
  - (d) Actions taken to correct the deviation.

The requirements of this condition shall not apply to deviations reported to District in accordance with Rule 505. Breakdown Conditions, or Rule 1303.F Emergency Provisions. [*District Rule 1303.D.1, 40 CFR 70.6(a) (3)*]

- A.18 **Reporting Requirements/Compliance Certification.** The permittee shall submit compliance certification reports to the USEPA and the Control Officer every six months. These reports shall be submitted on District approved forms and shall identify each applicable requirement/condition of the permit, the compliance status with each requirement/condition, whether the compliance was continuous or intermittent, and include detailed information on the occurrence and correction of any deviations from permit requirement. The reporting periods shall be each half of the calendar year, e.g., January through June for the first half of the year. These reports shall be submitted by September 1<sup>st</sup> and March 1<sup>st</sup>, respectively, each year. Supporting monitoring data shall be submitted in accordance with the "Semi-Annual Compliance Verification Report" condition in section 9.C. The permittee shall include a written statement from the responsible official, which certifies the truth, accuracy, and completeness of the reports. [Re: *District Rules 1303.D.1, 1302.D.3, 1303.2.c*]
- A.19 **Federally Enforceable Conditions.** Each federally enforceable condition in this permit shall be enforceable by the USEPA and members of the public. None of the conditions in the District-only enforceable section of this permit are federally enforceable or subject to the public/USEPA review [Re: *CAAA, § 502(b)(6), 40 CFR 70.6(b)*]
- A.20 **Recordkeeping Requirements.** The permittee shall maintain records of required monitoring information that include the following:
- (a) The date, place as defined in the permit, and time of sampling or measurements;

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- (b) The date(s) analyses were performed;
- (c) The company or entity that performed the analyses;
- (d) The analytical techniques or methods used;
- (e) The results of such analyses; and
- (f) The operating conditions as existing at the time of sampling or measurement;
- (g) The records (electronic or hard copy), as well as all supporting information including calibration and maintenance records, shall be maintained for a minimum of five (5) years from date of initial entry by the permittee and shall be made available to the District upon request. [*Re: District Rule 1303.D.1.f, 40 CFR 70.6(a)(3)*]

A.21 **Conditions for Permit Reopening.** The permit shall be reopened and revised for cause under any of the following circumstances:

- (a) Additional Requirements: If additional applicable requirements (e.g., NSPS or MACT) become applicable to the source which has an unexpired permit term of three (3) or more years, the permit shall be reopened. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. However, no such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended. All such re-openings shall be initiated only after a 30 day notice of intent to reopen the permit has been provided to the permittee, except that a shorter notice may be given in case of an emergency.
- (b) Inaccurate Permit Provisions: If the District or the USEPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit, the permit shall be reopened. Such re-openings shall be made as soon as practicable.
- (c) Applicable Requirement: If the District or the USEPA determines that the permit must be revised or revoked to assure compliance with any applicable requirement including a federally enforceable requirement, the permit shall be reopened. Such re-openings shall be made as soon as practicable.
- (d) Administrative procedures to reopen a permit shall follow the same procedures as apply to initial permit issuance. Re-openings shall affect only those parts of the permit for which cause to reopen exists.
- (e) If a permit is reopened, the expiration date does not change. Thus, if the permit is reopened, and revised, then it will be reissued with the expiration date applicable to the re-opened permit. [*Re: 40 CFR 70.7(f), 40 CFR 70.6(a)*]

A.22 **Credible Evidence.** Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to

waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding. [Re: 40 CFR 52.12(c)]

**9.B. Generic Conditions**

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

- B.1 **Circumvention (Rule 301).** A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26 (Air Resources) of the Health and Safety Code of the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California, or of District Rule 303. [Re: District Rule 301]
- B.2 **Visible Emissions (Rule 302).** 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.49. [Re: District Rule 302]
- B.3 **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: District Rule 303]
- B.4 **PM Concentration - South Zone (Rule 305).** ExxonMobil shall not discharge into the atmosphere, from any source, particulate matter in excess of the concentrations listed in Table 305(a) of Rule 305. [Re: District Rule 305]
- B.5 **Contaminants (Rule 309).** ExxonMobil shall not discharge into the atmosphere from any single source sulfur compounds, hydrogen sulfide, combustion contaminants and carbon monoxide in excess of the standards listed in Sections A, B and G of Rule 309. ExxonMobil shall not discharge into the atmosphere from any fuel burning equipment unit, sulfur compounds, nitrogen oxides or combustion contaminants in excess of the standards listed in Section E and F of Rule 309. [Re: District Rule 309]

**9.C Requirements and Equipment Specific Conditions**

This section contains non-generic federally-enforceable conditions, including emissions and operations limits, monitoring, recordkeeping, and reporting for each specific equipment group. This section may also contain other non-generic conditions. Permit condition 9.C.5 supersedes permit condition 9.C.5 of PTO 9101-R4 and condition 9.C.14 modifies permit condition 9.C.14 of PTO 9101-R4. All remaining permit conditions of Pt70 PTO 9101-R4 remain in full force and effect.

**C.5 Fugitive Hydrocarbon Emissions Components.** The following equipment are included in this emissions unit category:

Device Type	APCD Device No	Device Type	APCD Device No
<i>Fugitive Components - Gas</i>		<i>Fugitive Components - Oil</i>	
Valve/Connection - Accessible	102370	Valve/Connection - Accessible	102364
Valve/Connection - Category B	102369	Valve/Connection - Category B	102367
Valve/Connection - Unsafe	102371	Valve/Connection - Category F	102368
		Pump Seals - Tandem	102363

- (a) **Emission Limits:** Mass emissions from the gas/light liquid service (sub-total) and oil service (sub-total) components listed above shall not exceed the limits listed in Tables 5.3 and 5.4. Compliance with this condition shall be based on actual component-leakpath counts as documented through the monitoring, recordkeeping and reporting conditions in this permit.
- (b) **Operational Limits:** Operation of the equipment listed in this section shall conform to the requirements listed in District Rule 331.D and E. Compliance with these limits shall be assessed through compliance with the monitoring, recordkeeping and reporting conditions in this permit. In addition ExxonMobil shall meet the following requirements:
  - (i) **VRS Use** - The vapor recovery and gas collection (VR & GC) systems at Platform Harmony shall be in operation when equipment connected to these systems are in use. These systems include piping, valves, and flanges associated with the VR & GC systems. The VR & GC systems shall be maintained and operated to minimize the release of emissions from all systems, including pressure relief valves and gauge hatches.
  - (ii) **I&M Program** - The District-approved I&M Plan, *Fugitive Emissions Inspection and Maintenance Program for Platform Harmony and Heritage* shall be implemented for the life of the project. The Plan, and any subsequent District

approved revisions, is incorporated by reference as an enforceable part of this permit.

- (iii) *Leakpath Count* - The total component-leakpath count listed in ExxonMobil's most recent I&M component-leakpath inventory shall not exceed the component-leakpath sub-totals listed in Table 5.1 by more than five percent. This five percent range is to allow for minor differences due to component counting methods and does not constitute allowable emissions growth due to the addition of new equipment.
- (iv) *Venting* - All routine venting of hydrocarbons shall be routed to either the main gas compressors, flare header, injection wells or other District-approved control device.
- (v) *BACT* - ExxonMobil shall apply BACT, as defined in Table 4.1 of PTO 9101-R4 to all component-leakpaths in hydrocarbon service for Gas Compressor Skid Unit CZZ-306 and the Heritage-to-Harmony Topsides Installation Project (ATC 9827) for the life of the project.
- (vi) *Rule 331 BACT* - The component-leakpaths in hydrocarbon service listed in Table 4.2 of PTO 9101-R4 are subject to BACT requirements pursuant to Rule 331. BACT, as defined in Table 4.2 of PTO 9101-R4, shall be implemented for the life of the project.
- (vii) *Category B Requirements* - Component-leakpaths monitored quarterly at less than 500 ppmv shall achieve a mass emission control efficiency of 85 percent. Category B component-leakpaths are defined as component-leakpaths associated with closed vent systems (e.g., vapor recovery systems) for which screening values are maintained at or below 500 ppmv as methane, monitored per EPA Reference Method 21. Category B component-leakpaths also include components subject to enhanced fugitive inspection and maintenance programs for which screening values are also maintained at or below 500 ppmv as methane, monitored per EPA Reference Method 21. For Category B components, screening values above 500 ppmv shall trigger the Rule 331 repair process per the minor leak schedule.
- (viii) *Category F Requirements* - Low emitting design component-leakpaths monitored quarterly at less than 100 ppmv shall achieve a mass emission control efficiency of 90 percent. Category F component-leakpaths are subject to BACT per Rule 331 for which screening values are maintained at or below 100 ppmv as methane, monitored per EPA Reference Method 21. For Category F components, screening values above 100 ppmv shall trigger the Rule 331 repair process per the minor leak schedule.

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- (c) Monitoring: The equipment listed in this section are subject to all the monitoring requirements listed in District Rule 331.F. The test methods in Rule 331.H shall be used.
- (d) Recordkeeping: The equipment listed in this section are subject to all the recordkeeping requirements listed in District Rule 331.G. In addition, ExxonMobil shall:

(i) *I&M Log* - ExxonMobil shall record in a log the following: a record of leaking components found (including name, location, type of component, date of leak detection, the ppmv or drop-per-minute reading, date of repair attempts, method of detection, date of re-inspection and ppmv or drop-per-minute reading following repair); a record of the total components inspected and the total number and percentage found leaking by component type; a record of leaks from critical components; a record of leaks from components that incur five repair actions within a continuous 12-month period; and, a record of component repair actions including dates of component re-inspections. For the purpose of this paragraph, a leaking component is any component which exceeds the applicable limit:

- (1) greater than or equal to 1,000 ppmv for minor leaks under Rule 331. (includes Accessible/Inaccessible components and Category A components);
- (2) greater than or equal to 100 ppmv for components subject to current BACT (includes Bellows, Category F and Category G)
- (3) greater than 100 ppmv for components subject to enhanced fugitive inspection and maintenance programs (Category C and Category E)
- (4) greater than or equal to 500 ppmv for components subject to enhanced fugitive inspection and maintenance programs (Category B and Category D).

(e) Reporting: The equipment listed in this section are subject to all the reporting requirements listed in District Rule 331.G. Within one calendar quarter whenever there is a change in the component list or diagrams, ExxonMobil shall provide an updated fugitive hydrocarbon component inventory per Rule 331.I. 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 *Compliance Verification Reports* condition of PTO 9101-R4. [Re: District Rules 331 and 1303, ATC 9827, ATC 9640, PTO 9640, PTO 9101, ATC/PTO 10037, 40 CFR 70.6]

C.14 **Offsets - NSR.** ExxonMobil shall offset all emissions of reactive organic compounds ("ROC") associated with the issuance of ATC 9640 and ATC 9827 as detailed in Section 7 of PTO 9101-R4 and Table 7.1 of this permit. Emission reduction credits sufficient to offset the permitted quarterly ROC emissions shall be in place for the life of the project. [Re: ATC 9640, PTO 9640, ATC 9827]

**9.D Requirements and Equipment Specific Conditions**

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

**D.1 Permit Activation.** All aspects of this permit are enforceable by the District and the State of California upon the issuance date stamped below. The Part 70 aspects of this permit are not final until:

- (a) The USEPA has either provided written comments to the District and these comments require no modification to this permit or the USEPA does not provide written comments during their review period. The District will issue a letter stating that this permit is a final Part 70 permit. The effective date that this permit will be considered a final Part 70 permit will be the date stamped on the District's letter.

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- (b) After the USEPA has provided the District written comments that require a modification to this permit, the District will modify this permit to address the USEPA's comments and issue the Part 70 permit as final. The re-issued permit will supersede this permit in its entirety.



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AIR POLLUTION CONTROL OFFICER

AUG 15 2011

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DATE

Attachments:

- Tables 5.1 - 5.6 Permitted Emission Limits
- Table 7.1 - Offsets and Emission Reduction Credit Requirements
- Permit Equipment List
- Permit Evaluation for Authority to Construct/Permit to Operate 13490

Notes:

- Reevaluation Due Date: June 1, 2012
- Stationary sources are subject to an annual emission fee (see Fee Schedule B-3 of Rule 210).
- Annual reports are due by March 1<sup>st</sup> of each year.

Table 5.1: Operating Equipment Description  
 ExxonMobil Platform Harmony  
 Authority to Construct/Permit to Operate 13490

Equipment Item	Description	Device Specifications			Usage Data		Maximum Operating Schedule				References				
		Exxon ID #	APCD DefcNo	Fuel %S	Size	Units	Capacity	Units	Load	hr		day	qtr	year	
Combustion - Engines	East Crane	ZZZ-507	5326	D2	0.0015	450 bhp	6,480	Btu/bhp-hr	-	1	24	1,095	4,380	A	
	Emergency Production Generator	ZAN-515	5347	D2	0.0015	1,344 bhp	8,200	Btu/bhp-hr	-	1	2	200	200		
	Emergency Drilling Generator	ZAN-515	5346	D2	0.0015	2,307 bhp	8,200	Btu/bhp-hr	-	1	2	200	200		
	Emergency Firewater Pump A	PBE-357	5348	D2	0.0015	430 bhp	10,000	Btu/bhp-hr	-	1	2	200	200		
	Emergency Firewater Pump B	PBE-367	7123	D2	0.0015	525 bhp	10,000	Btu/bhp-hr	-	1	2	200	200		
	B - Side Cement Pumping Skid		112508	D2	0.0015	500 bhp	7,500	Btu/bhp-hr	-	1	24	2,190	8,760		
	C - Side Cement Pumping Skid		112507	D2	0.0015	500 bhp	7,500	Btu/bhp-hr	-	1	24	2,190	8,760		
	Cuttings Reinjection Pump		112509	D2	0.0015	450 bhp	7,500	Btu/bhp-hr	-	1	24	2,190	8,760		
	Central Process Heater	EAP-603	5329	PG	0.0080	27.2 MMBtu/hr	-	-	-	1	24	2,190	8,760		
	Central Process Heater (PR)	EAP-603	5329	PR	0.0165	27.2 MMBtu/hr	-	-	-	1	6	80	320		
Combustion - Flare	Purge and Pilot	EAL-602	112394	PG	0.0080	445 scfh	0.579	MMBtu/hr	-	1	24	2,190	8,760	C	
	Planned - continuous	EAL-602	112392	SG	2.0000	607 scfh	0.789	MMBtu/hr	-	1	24	2,190	8,760		
	Planned - other	EAL-602	112393	SG	2.0000	3,820 MMBtu/hr	6,300	MMscf/yr	-	-	-	0	1		
	Unplanned	EAL-602	112395	SG	2.0000	3,820 MMBtu/hr	34,000	MMscf/yr	-	-	-	0	1		
Fugitive Components - Gas	Valve/Connection Accessible		102370	-	-	8,259 comp-lp	-	-	-	1	24	2,190	8,760	D	
	Valve/Connection Category B		102369	-	-	6,314 comp-lp	-	-	-	1	24	2,190	8,760		
	Valve/Connection Category F		102376	-	-	1,199 comp-lp	-	-	-	1	24	2,190	8,760		
	Valve/Connection Unsafe		102371	-	-	88 comp-lp	-	-	-	1	24	2,190	8,760		
	Pressure Safety Valves To VRS/Flare		111884	-	-	4 comp-lp	-	-	-	1	24	2,190	8,760		
						sub-total =	15,864 comp-lp								
Fugitive Components - Oil	Valve/Connection Valves - Accessible		102364	-	-	8,503 comp-lp	-	-	-	1	24	2,190	8,760	D	
	Valve/Connection Category B		102367	-	-	79 comp-lp	-	-	-	1	24	2,190	8,760		
	Valve/Connection Category F		102368	-	-	44 comp-lp	-	-	-	1	24	2,190	8,761		
	Valve/Connection Pump Seals - Tandem		102363	-	-	6 comp-lp	-	-	-	1	24	2,190	8,760		
						sub-total =	8,632 comp-lp								







Table 5.5: Total Permitted Facility Emissions  
 ExxonMobil Platform Harmony  
 Authority to Construct/Permit to Operate 13490

**A. Hourly**

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Combustion - Engines	160.07	12.95	42.02	0.08	11.59	11.59
Combustion - External	0.98	0.15	8.08	0.30	0.20	0.20
Combustion - Flare	0.09	0.16	0.51	2.06	0.03	0.03
Fugitive Components	--	8.92	--	--	--	--
Supply Boat	100.32	4.04	15.53	0.04	6.13	5.89
Emergency Response	--	--	--	--	--	--
Survival Capsules	1.73	0.05	0.24	0.00	0.10	0.10
Crew Boat	105.59	3.44	15.53	0.04	6.26	6.01
Pigging	--	2.98	--	--	--	--
Sumps/Tanks/Separators	--	0.06	--	--	--	--
Solvent Usage	--	0.46	--	--	--	--
<b>Totals (lb/hr)</b>	<b>368.78</b>	<b>33.21</b>	<b>81.90</b>	<b>2.52</b>	<b>24.32</b>	<b>23.82</b>

**B. Daily**

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Combustion - Engines	700.38	60.47	331.48	0.63	54.81	54.81
Combustion - External	23.50	3.52	193.88	6.79	4.90	4.90
Combustion - Flare	2.23	3.95	12.14	49.38	0.66	0.66
Fugitive Components	--	214.09	--	--	--	--
Supply Boat	2,000.10	72.06	297.02	0.73	120.36	115.55
Emergency Response	--	--	--	--	--	--
Survival Capsules	41.48	1.26	5.79	0.02	2.44	2.34
Crew Boat	2,291.28	74.62	337.00	0.84	135.82	130.39
Pigging	--	14.88	--	--	--	--
Sumps/Tanks/Separators	--	1.38	--	--	--	--
Solvent Usage	--	10.96	--	--	--	--
<b>Totals (lb/day)</b>	<b>5,058.97</b>	<b>457.20</b>	<b>1,177.31</b>	<b>58.40</b>	<b>318.98</b>	<b>308.64</b>

**C. Quarterly**

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Combustion - Engines	28.64	2.35	13.79	0.03	2.07	2.07
Combustion - External	1.07	0.16	8.85	0.31	0.22	0.22
Combustion - Flare	0.51	0.92	2.83	18.21	0.15	0.15
Fugitive Components	--	9.77	--	--	--	--
Supply Boat	14.71	0.79	3.21	0.01	1.30	1.24
Emergency Response	0.32	0.01	0.03	0.00	0.02	0.02
Survival Capsules	0.04	0.03	0.03	0.03	0.03	0.03
Crew Boat	12.52	0.81	3.29	0.01	0.90	0.86
Pigging	--	0.06	--	--	--	--
Sumps/Tanks/Separators	--	0.06	--	--	--	--
Solvent Usage	--	0.50	--	--	--	--
<b>Totals (TPQ)</b>	<b>57.81</b>	<b>15.45</b>	<b>32.02</b>	<b>18.59</b>	<b>4.68</b>	<b>4.60</b>

**D. Annual**

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Combustion - Engines	71.73	5.98	45.91	0.09	5.21	5.21
Combustion - External	4.29	0.64	35.38	1.24	0.89	0.89
Combustion - Flare	2.05	3.68	11.30	72.85	0.61	0.61
Fugitive Components	--	39.07	--	--	--	--
Supply Boat	58.85	3.16	12.85	0.03	5.18	4.98
Emergency Response	1.28	0.04	0.10	0.00	0.08	0.07
Survival Capsules	0.11	0.03	0.03	0.03	0.03	0.03
Crew Boat	50.07	3.22	13.17	0.03	3.58	3.45
Pigging	--	0.25	--	--	--	--
Sumps/Tanks/Separators	--	0.25	--	--	--	--
Solvent Usage	--	2.00	--	--	--	--
<b>Totals (TPY)</b>	<b>188.38</b>	<b>58.32</b>	<b>118.75</b>	<b>74.27</b>	<b>15.59</b>	<b>15.25</b>

Table 5.6: Federal Potential to Emit  
ExxonMobil Platform Harmony  
Authority to Construct/Permit to Operate 13490

**A. Hourly**

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Combustion - Engines	160.07	12.95	42.02	0.08	11.59	11.59
Combustion - External	0.98	0.15	8.08	0.30	0.20	0.20
Combustion - Flare	0.09	0.16	0.51	2.06	0.03	0.03
Fugitive Components	--	8.92	--	--	--	--
Supply Boat	100.32	4.04	15.53	0.04	6.13	5.89
Emergency Response	--	--	--	--	--	--
Survival Capsules	1.73	0.05	0.24	0.00	0.10	0.10
Crew Boat	105.59	3.44	15.53	0.04	6.26	6.01
Pigging	--	2.98	--	--	--	--
Sumps/Tanks/Separators	--	0.06	--	--	--	--
Solvent Usage	--	0.46	--	--	--	--
<b>Totals (lb/hr)</b>	<b>368.78</b>	<b>33.21</b>	<b>81.90</b>	<b>2.52</b>	<b>24.32</b>	<b>23.82</b>

**B. Daily**

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Combustion - Engines	700.38	60.47	331.48	0.63	54.81	54.81
Combustion - External	23.50	3.52	193.88	6.79	4.90	4.90
Combustion - Flare	2.23	3.95	12.14	49.38	0.66	0.66
Fugitive Components	--	214.09	--	--	--	--
Supply Boat	2,000.10	72.06	297.02	0.73	120.36	115.55
Emergency Response	--	--	--	--	--	--
Survival Capsules	41.48	1.26	5.79	0.02	2.44	2.34
Crew Boat	2,291.28	74.62	337.00	0.84	135.82	130.39
Pigging	--	14.88	--	--	--	--
Sumps/Tanks/Separators	--	1.38	--	--	--	--
Solvent Usage	--	10.96	--	--	--	--
<b>Totals (lb/day)</b>	<b>5,058.97</b>	<b>457.20</b>	<b>1,177.31</b>	<b>58.40</b>	<b>318.98</b>	<b>308.64</b>

**C. Quarterly**

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Combustion - Engines	28.64	2.35	13.79	0.03	2.07	2.07
Combustion - External	1.07	0.16	8.85	0.31	0.22	0.22
Combustion - Flare	0.51	0.92	2.83	18.21	0.15	0.15
Fugitive Components	--	9.77	--	--	--	--
Supply Boat	14.71	0.79	3.21	0.01	1.30	1.24
Emergency Response	0.32	0.01	0.03	0.00	0.02	0.02
Survival Capsules	0.04	0.03	0.03	0.03	0.03	0.03
Crew Boat	12.52	0.81	3.29	0.01	0.90	0.86
Pigging	--	0.06	--	--	--	--
Sumps/Tanks/Separators	--	0.06	--	--	--	--
Solvent Usage	--	0.50	--	--	--	--
<b>Totals (TPQ)</b>	<b>57.81</b>	<b>15.45</b>	<b>32.02</b>	<b>18.59</b>	<b>4.68</b>	<b>4.60</b>

**D. Annual**

Equipment Category	NOx	ROC	CO	SOx	PM	PM10
Combustion - Engines	71.73	5.98	45.91	0.09	5.21	5.21
Combustion - External	4.29	0.64	35.38	1.24	0.89	0.89
Combustion - Flare	2.05	3.68	11.30	72.85	0.61	0.61
Fugitive Components	--	39.07	--	--	--	--
Supply Boat	58.85	3.16	12.85	0.03	5.18	4.98
Emergency Response	1.28	0.04	0.10	0.00	0.08	0.07
Survival Capsules	0.11	0.03	0.03	0.03	0.03	0.03
Crew Boat	50.07	3.22	13.17	0.03	3.58	3.45
Pigging	--	0.25	--	--	--	--
Sumps/Tanks/Separators	--	0.25	--	--	--	--
Solvent Usage	--	2.00	--	--	--	--
<b>Totals (TPY)</b>	<b>188.38</b>	<b>58.32</b>	<b>118.75</b>	<b>74.27</b>	<b>15.59</b>	<b>15.25</b>

Table 7.1 ROC Emission Offset Requirements  
ExxonMobil Platform Harmony  
Authority to Construct/Permit to Operate 13490

Reactive Organic Compounds (ROC)

NEI Emissions From New Projects	Reactive Organic Compounds (ROC)	
	TPQ	TPY
Compressor Skid Unit (PTO 9640)	0.14	0.56
Pig Receiver (ATC 9827)	0.01	0.02
Fugitive I&M Components (ATC 9827)	0.07	0.27
De Minimis Transfer	0.1164	0.4656
Hondo Field Offshore Water Injection Project (ATC 12682)	0.39	1.55
Hondo Field Offshore Water Injection Project (ATC Mod 12682 01)	0.239	0.955
Deminimis Transfer (ATC/PTO 13490)	0.123	0.492
<b>Total NEI:</b>	<b>1.09</b>	<b>4.31</b>

Emission Reduction Sources (NEI)	Emission Reductions		Distance Factor <sup>(a)</sup>	Offset Credit	
	TPQ	TPY		TPQ	TPY
1. Enhanced I&M at Exxon LFC (PTO 5651)	0.17	0.67	1.2	0.14	0.56
2. ERC # 0004-0103 <sup>(b)</sup>	0.10	0.40	1.2	0.08	0.33
3. ERC # 0079-0206 <sup>(c)</sup>	0.2780	1.1120	1.5	0.1853	0.7413
4. ERC # 0080-0307 <sup>(d)</sup>	0.3310	1.3240	1.5	0.2207	0.8827
5. ERC # 0081-0308 <sup>(e)</sup>	0.6570	2.6280	1.5	0.4380	1.7520
6. ERC # 0083-1103 <sup>(f)</sup>	0.6400	2.5600	6.0	0.1067	0.4267
7. ERC # 0136-0811 <sup>(g)</sup>	0.46	1.86	1.2	0.39	1.55
8. ERC # 0188-0811 <sup>(h)</sup>	0.286	1.146	1.2	0.239	0.955
9. ERC # 0235-0811 <sup>(i)</sup>	0.148	0.590	1.2	0.123	0.492
<b>Total Offsets:</b>	<b>2.64</b>	<b>10.55</b>		<b>1.56</b>	<b>6.24</b>

Notes:

- (a) Offset ratios set according to Table 4 of APCD Rule 802. Offset credit is determined by the ERC value by the offset ratio.
- (b) ERCs from ERC Certificate No. 0004-0103 (issued January 1988). ERC face value was 0.18 tpq ROC (of which 0.10 tpq was used for ATC 9827)
- (c) ERC Certificate #0079 is for ERCs generated due the shutdown of McGhan Medical Corporation's Carpinteria facility.
- (d) ERC Certificate #0080 is for ERCs generated due the shutdown of McGhan Medical Corporation's Goleta facility at 600 Pine Avenue.
- (e) ERC Certificate #0081 is for ERCs generated due the shutdown of BioEnterics Corporation facility at 1035 Cindy Lane in Carpinteria.
- (f) ERC Certificate #0083 is for ERCs generated due the shutdown of Grefco's Lompoc diatomaceous earth processing plant.
- (g) ERC Certificate #0136 is for ERCs generated due the installation of low NOx engines on the M/V Broadbill.
- (h) ERC Certificate #0188 is for ERCs generated due to the installation of low NOx engines on the M/V Broadbill.
- (i) ERC Certificate #0811 is for ERCs generated by the repowering of the M/V Broadbill.

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## PERMIT EQUIPMENT LIST - TABLE A

ATC/PTO 13490 / FID: 08018 Platform Harmony / SSID: 01482

### A PERMITTED EQUIPMENT

#### 1 Fugitive HC Components - Valve CLP - Oil Svc. (Access.)

<i>Device ID #</i>	<b>113969</b>	<i>Device Name</i>	<b>Fugitive HC Components - Valve CLP - Oil Svc. (Access.)</b>
<i>Rated Heat Input</i>		<i>Physical Size</i>	867.00 Component Leakpath
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>			
<i>Device Description</i>			

#### 2 Fugitive HC Components - Valve CLP - Gas Svc. (Access.)

<i>Device ID #</i>	<b>113970</b>	<i>Device Name</i>	<b>Fugitive HC Components - Valve CLP - Gas Svc. (Access.)</b>
<i>Rated Heat Input</i>		<i>Physical Size</i>	132.00 Component Leakpath
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>			
<i>Device Description</i>			



PERMIT EVALUATION FOR  
AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13490

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**1.0 BACKGROUND**

- 1.1 General: Project modifications have occurred at Platform Harmony for which the emissions associated with fugitive emission components have qualified as de minimis. This permit action incorporates all existing fugitive emission component leak paths (clps) currently categorized as de minimis at the platform, into the total fugitive clp count currently permitted at this facility.
- 1.2 Permit History: Platform Harmony is an offshore oil and gas platform which produces natural gas and crude oil. Primary separation occurs at the platform prior to shipment to Las Flores Canyon. See PTO 9101-R4 for a brief description of all permit modifications that have been issued.

**2.0 ENGINEERING ANALYSIS**

- 2.1 Equipment/Processes: The additional clps subject to this permit action consist of 867 valve/connection clps (oil service) and 132 valve/connection clps (gas service). These clps represent the total number of de minimis fugitive emission clps currently inventoried at Platform Harmony. Following issuance of this permit, there will be no de minimis clps at the platform.
- 2.2 Emission Controls: There are no emission controls associated with this permit action.
- 2.3 Emission Factors: Emission factors are documented in Table 5.2 of this permit.
- 2.4 Reasonable Worst Case Emission Scenario: Worst case emissions are based on facility operations 24 hours/day, 365 days/year.
- 2.5 Emission Calculations: The total emission increase from the additional clps is 2.704 lb/day ROC and 0.123 tpq ROC. Detailed emission calculation spreadsheets are provided in Tables 5.1 through 5.6. The additional clps have been included in these tables.
- 2.6 Special Calculations: There are no special calculations.
- 2.7 BACT Analyses: Best Available Control Technology was not required for this project.
- 2.8 Enforceable Operational Limits: The enforceable operating limits are listed in permit condition 9.C.5(b) of this permit.

PERMIT EVALUATION FOR  
AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13490

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2.9 Monitoring Requirements: Monitoring of fugitive emissions is required per condition 9.C.5(c) of this permit.

2.10 Recordkeeping and Reporting Requirements: Recordkeeping and reporting is required per condition 9.C.5(d) and 9.C.5(e) of this permit.

**3.0 REEVALUATION REVIEW (not applicable)**

**4.0 REGULATORY REVIEW**

4.1 Partial List of Applicable Rules: This project is anticipated to operate in compliance with the following rules:

- Rule 101. Compliance of Existing Facilities
- Rule 201. Permits Required
- Rule 202. Exemptions to Rule 201
- Rule 205. Standards for Granting Permits
- Rule 302. Visible Emissions
- Rule 303. Nuisance
- Rule 309. Specific Contaminants
- Rule 331. Fugitive Emissions Inspection and Maintenance
- Rule 505. Breakdown Procedures
- Rule 801. New Source Review
- Rule 802. Nonattainment Review
- Rule 803. Prevention of Significant Deterioration

4.2 Rules Requiring Review: None.

4.3 NEI Calculations: The net emission increase calculation is used to determine whether new source review (NSR) requirements must be applied to a project (e.g., offsets, AQIA, PSD BACT). The emissions associated with this permit action constitute NEI. The appropriate NSR requirements have been applied as discussed in this engineering evaluation.

**5.0 AQIA**

This permit action is not subject to the Air Quality Impact Analysis requirements of Regulation VIII.

**6.0 OFFSETS/ERCs**

6.1 Offsets: The emissions associated with this permit action do not exceed the offset thresholds of Rule 802, however, the Exxon SYU Project stationary source exceeds these offset thresholds for NO<sub>x</sub>, ROC, PM, PM<sub>10</sub> and SO<sub>2</sub>. Thus, the ROC emissions associated with this permit action are required to be offset. Emission Reduction Credit certificate 0235-0811 (M/V Broadbill repower) was used to provide reductions at a 1.2 to 1 offset ratio, as documented in Table 7.1.

PERMIT EVALUATION FOR  
AUTHORITY TO CONSTRUCT/PERMIT TO OPERATE 13490

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6.2 ERCs: This project does not generate emission reduction credits.

**7.0 AIR TOXICS**

An air toxics health risk assessment was not performed for this permitting action.

**8.0 CEQA / LEAD AGENCY**

The District is the lead agency for CEQA for this project. This project is a minor modification of an existing facility involving no expansion of use beyond that previously existing, therefore this project is exempt from CEQA pursuant to Appendix A of the District's CEQA guidelines.

**9.0 SCHOOL NOTIFICATION**

A school notice pursuant to the requirements of H&SC §42301.6 was not required.

**10.0 PUBLIC and AGENCY NOTIFICATION PROCESS/COMMENTS ON DRAFT PERMIT**

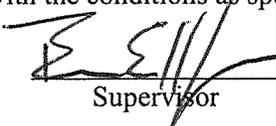
This permit was not subject to the public notice requirements of Rule 802 and 803. There were only minor comments on the draft permit.

**11.0 FEE DETERMINATION**

Fees for this permit are assessed under the cost reimbursement provisions of Rule 210.

**12.0 RECOMMENDATION**

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

<u>J. Menno</u>	<u>August 2011</u>		<u>August 2011</u>
AQ Engineer	Date	Supervisor	Date

**13.0 ATTACHMENT**

Figures & Tables.

PERMIT POTENTIAL TO EMIT

	NO <sub>x</sub>	ROC	CO	SO <sub>x</sub>	PM	PM <sub>10</sub>
lb/day	--	2.71	--	--	--	--
lb/hr						
TPQ						
TPY	--	0.492	--	--	--	--

FACILITY POTENTIAL TO EMIT

	NO <sub>x</sub>	ROC	CO	SO <sub>x</sub>	PM	PM <sub>10</sub>
lb/day	5,058.97	443.48	1,177.31	58.40	318.98	308.64
lb/hr						
TPQ						
TPY	188.38	55.81	118.75	74.27	15.59	15.25

FACILITY NEI90

	NO <sub>x</sub>	ROC	CO	SO <sub>x</sub>	PM	PM <sub>10</sub>
lb/day	450.58	27.34	71.42	22.60	26.69	25.61
lb/hr						
TPQ						
TPY	0.00	3.36	71.42	22.60	26.69	25.61

Notes:

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