Santa Barbara County
Air Pollution Control District

PROPOSED

Permit to Operate No. 12682

EQUIPMENT OWNER/OPERATOR:

ExxonMobil Production Company 220219

EQUIPMENT LOCATION:

Platform Harmony, Parcel OCS P-0190

STATIONARY SOURCE/FACILITY:

Exxon - SYU Project SSID: 01482
Platform Harmony FID: 08018

EQUIPMENT DESCRIPTION:

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

PROJECT/PROCESS DESCRIPTION:

Produced water from the Oil Treatment Plant (OTP) at the Las Flores Canyon Oil & Gas Plant (LFC) is diverted from the Produced Water Treating System in the OTP and sent offshore to Platform Harmony for injection into five water injection wells. This project improves overall oil recovery from the Hondo Reservoir by injecting the produced water into the producing formation. Completion of this project also satisfies EPA directives to find alternatives to discharging water to the ocean.

The water surge vessel is connected to both the vapor recovery system and the flare gas system. Under normal operating conditions, vapors from the vessel are routed to the vapor recovery system. During situations in which the gas level rises quickly, exceeding the capacity of the vapor recovery system, the vapors are sent to the flare gas system through two control valves. The vessel is also equipped with two additional, redundant pressure relief valves for emergency relief to the flare gas system.

Prior to installation of this equipment, five permitted oil and gas wells (HA-11, HA-23, HA-26, HA-28, HA-30) were converted to water injection wells. The related fugitive component and emission reductions are documented and quantified in DOI 067.

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 **Indemnity and Separation Clauses.** The Applicant shall defend, indemnify and hold harmless the District or its agents, officers and employees from any claim, action or proceeding against the District or its agents, officers or employees, to attack, set aside, void, or annul, in whole or in part, the approval granted herein. In the event that the District fails promptly to notify the Applicant of any such claim, action or proceeding, or that the District fails to cooperate fully in the defense of said claim, this condition shall thereafter be of no force or effect. In the event that any condition contained herein is determined to be invalid, then all remaining conditions shall remain in force.

A.3 **Reimbursement of Costs**. All reasonable expenses, as defined in District Rule 210, incurred by the District, District contractors, and legal counsel for all activities 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.4 **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the District or its agents, 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.5 **Compliance.** Nothing contained within this permit shall be construed to allow the violation of any local, State or Federal rule, regulation, ambient air quality standard or air quality increment. [*Re: PTO 9101*]

A.6 **Consistency with Analysis.** Operation under this permit shall be conducted consistent with all data, specifications and assumptions included with the application and supplements thereof (as

documented in the District's project file) and the District's analyses under which this permit is issued as documented in the Permit Analyses prepared for and issued with the permit. [*Re: PTO 9101*]

A.7 **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.8 **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.9 **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.

(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.10 **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.11 **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.12 **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.13 **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.14 **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 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.15 **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.16 **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.17 **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 1st and March 1st, respectively, each year. Supporting monitoring data shall be submitted in accordance with the "Semi-Annual Compliance Verification Report" condition in section 9.C. The permittee shall include a written statement from the responsible official, which certifies the truth, accuracy, and completeness of the reports. [*Re: District Rules 1303.D.1, 1302.D.3, 1303.2.c*]

A.18 **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.19 **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;

(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.20 **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.21 **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)*]

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. These rules apply to the equipment and operations at Platform Harmony as they currently exist. Compliance with these requirements is discussed in Section 3.4.2 of PTO 9101-R4. 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.

For those sources listed in Condition 9.C.25 of PTO 9101-R4 (*Visible Emissions*), ExxonMobil shall be in compliance with the requirements of this Rule in accordance with the monitoring and compliance recordkeeping procedures in Condition 9.C.25 of PTO 9101-R4 (*Visible Emissions*). [*Re: District Rule 302*]

B.3 **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.4 **Specific Contaminants (Rule 309).** ExxonMobil shall not discharge into the atmosphere from any single source sulfur compounds, carbon monoxide and combustion contaminants in excess of the applicable standards listed in Sections A, E and G of Rule 309. [*Re: District Rule 309*].

B.5 **Sulfur Content of Fuels (Rule 311).** ExxonMobil shall not burn fuels with a sulfur content in excess of 0.5% (by weight) for liquid fuels and 239 ppmvd or 15 gr/100 scf (calculated as H_2S) for gaseous fuel. Compliance with this condition shall be based on daily measurements of the fuel gas using (Draeger tubes, ASTM, or other District-approved) methods and diesel fuel billing records or other data showing the certified sulfur content for each shipment. [*Re: District Rule 311*]

B.6 **Organic Solvents (Rule 317).** ExxonMobil shall comply with the emission standards listed in Rule 317.B. Compliance with this condition shall be based on ExxonMobil's compliance with Condition C.8 of PTO 9101-R4 (*Solvent Usage*). [*Re: District Rule 317*]

B.7 **Vacuum Producing Devices or Systems – Southern Zone (Rule 318).** ExxonMobil shall not discharge into the atmosphere more than 3 pounds of organic materials in any one hour from any vacuum producing devices or systems, including hot wells and accumulators, unless said discharge has been reduced by at least 90 percent. [*Re: District Rule 318*]

B.8 **Solvent Cleaning Operations (Rule 321).** ExxonMobil shall comply with the requirements listed in Sections D, G, I, P and Q of Rule 321. Compliance with this condition shall be based on ExxonMobil's compliance with Condition C.8 of PTO 9101-R4 (*Solvent Usage*) as well as District inspections. [*Re: District Rule 321*]

B.9 **Metal Surface Coating Thinner and Reducer (Rule 322).** The use of photochemically reactive solvents as thinners or reducers in metal surface coatings is prohibited. Compliance with this condition shall be based on ExxonMobil's compliance with Condition C.8 of PTO 9101-R4 (*Solvent Usage*) and facility inspections. [*Re: District Rule 322*]

B.10 **Architectural Coatings (Rule 323).** ExxonMobil shall comply shall comply with the coating ROC content and handling standards listed in Rule 323.D as well as the Administrative requirements listed in Rule 323.F. Compliance with this condition shall be based on ExxonMobil's compliance with Condition C.8 of PTO 9101-R4 (*Solvent Usage*) and facility inspections. [*Re: District Rule 323*]

B.11 **Disposal and Evaporation of Solvents (Rule 324).** ExxonMobil 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 ExxonMobil's compliance with Condition C.8 of PTO 9101-R4 (*Solvent Usage*) and facility inspections. [*Re: District Rule 324*]

B.12 **Continuous Emissions Monitoring (Rule 328).** ExxonMobil shall comply with the requirements of Section C, F, G, H and I of Rule 328 for the fuel gas hydrogen sulfide analyzer. Compliance shall be based on the monitoring, recordkeeping and reporting requirements of this permit as well as on-site inspections. [*Re: District Rule 328*]

B.13 **Adhesives and Sealants (Rule 353).** The permittee shall not use adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primers, unless the permittee complies with the following:

(a) Such materials used are purchased or supplied by the manufacturer or suppliers in containers of 16 fluid ounces or less; or alternately

(b) When the permittee uses such materials from containers larger than 16 fluid ounces and the materials are not exempt by Rule 353.B.1, the total reactive organic compound emissions from the use of such material shall not exceed 200 pounds per year unless the substances used and the operational methods comply with Sections D, E, F, G, and H of Rule 353. Compliance shall be demonstrated by recordkeeping in accordance with Section B.2 and/or Section O of Rule 353. [*Re: District Rule 353*]

B.14 **Oil and Natural Gas Production MACT.** ExxonMobil submitted HAP calculations that show each of these facilities qualifies an area source (not a major source), and thus are not subject to the MACT. This is based on the definitions of "facility" and "major source" in the MACT. The data shows that each platform has less than 10 TPY combined HAPs. [*Re:* 40 CFR 63, Subpart HH]

C Requirements and Equipment Specific Conditions

Federally-enforceable conditions, including emissions and operations limits, monitoring, recordkeeping and reporting are included in this section for each specific group of equipment as well as other non-generic requirements.

The conditions below replace or supplement conditions in PTO 9101-R4, as specified. The attached Tables 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.8, and 7.1 supersede those in PTO 9101-R4. All other conditions in 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
Fugitive Components - Gas		*Fugitive Components - Oil*	
Valve/Connection - Accessible	102370	Valve/Connection - Accessible	102364
Valve/Connection - Category B	102369	Valve/Connection - Category B	102367
Valve/Connection - Category F	102376	Valve/Connection - Category F	102368
Valve/Connection - Unsafe	102371	Pump Seals - Tandem	102363
PSV - To VRS/Flare	111884		

(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 Platforms Harmony and Heritage* (February 1999), for

Platform Harmony 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 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 are subject to BACT requirements pursuant to Rule 331. BACT, as defined in Table 4.2, 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.

(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);

(ii) *Compressor Skid Unit CZZ-306 Requirements* - ExxonMobil shall record the number of component-leak paths associated with the main gas compressor skid unit (CZZ-306) permitted under ATC 9640 and PTO 9640 as of the last day of each month, and the associated total ROC emissions for each month the compressor operates.

(iii) *Heritage-to-Harmony Pipeline Project Requirements* - ExxonMobil shall record the number of component-leak paths associated with the Heritage-to-Harmony Pipeline Project permitted under ATC 9827 as of the last day of each month, and the associated total ROC emissions for each month this equipment operates.

(e) Reporting: The equipment listed in this section are subject to all the reporting requirements listed in District Rule 331.G. Within 15 days of the close of each calendar quarter, ExxonMobil shall provide an updated fugitive hydrocarbon component inventory due to changes in the component list or diagrams, 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 this permit. [*Re: District Rules 331 and 1303, ATC 9827, ATC 9640, PTO 9640, PTO 9101,* ATC/PTO 10037, *40 CFR 70.6*]

C.7 **Tanks/Sumps/Separators.** The following equipment are included in this emissions category:

Device Name	ExxonMobil ID	KVB Service	APCD Device No
Group A Units			
Open Drain Sump	ABH-406	2º heavy oil	5340
Wellbay Drain Sump	ABH-405	2º heavy oil	5341
Skim Pile	ABH-416	2º heavy oil	5343
Drilling Solids Settling Tank	ABJ-417	2º heavy oil	5344
Group B Units			
Closed Drain Sump	MBH-132	2º heavy oil	5339
Amine Sump	MBH-170	2º heavy oil	5342
Emulsion Surge Tank	MBJ-110	2º heavy oil	103899
Water Surge Vessel	MBJ-111	3º heavy oil	111875
Group C Units			
Chemical Storage Tote Tanks			102362

(f) Emission Limits: Mass emissions from the equipment listed above shall not exceed the limits listed in Tables 5.3 and 5.4. Compliance with this condition shall be based on the operational, monitoring, recordkeeping and reporting conditions in this permit.

(g) Operational Limits: All process operations from the Group A equipment listed in this section shall meet the requirements of District Rule 325, Sections D.3, D.4, E, F and G. All process operations from the Group B equipment listed in this section shall meet the requirements of District Rule 325, Sections F.5 and F.6. Compliance with these limits shall be assessed through compliance with the monitoring, recordkeeping and reporting conditions in this permit. In addition, ExxonMobil shall:

(i) *VRS Use* - The vapor recovery systems shall be in operation when the equipment connected to the VRS system at the facility are in use. The VRS system includes piping, valves, and flanges associated with each VRS system. Each VRS system shall be maintained and operated to minimize the release of emissions from all systems, including pressure relief valves and gauge hatches.

(ii) *Vapor Recovery System Efficiency* - The vapor recovery system maintain a minimum efficiency of 95 percent (mass basis). Compliance shall be based on the monitoring, recordkeeping and reporting requirements of this permit.

(iii) *Service Type Restrictions* - The KVB service type, as defined pursuant to District P&P 6100.060, for each Group A and Group B unit shall be restricted to the service

type listed above or a service of a lesser emitting type (e.g., a secondary heavy oil sump may be used as a tertiary heavy oil sump).

(h) Monitoring: The equipment listed in this section are subject to all the monitoring requirements of District Rule 325.H (for Group A units only). The test methods outlined in District Rule 325.G shall be used, as applicable.

(i) Recordkeeping: The equipment listed in this section is subject to all the recordkeeping requirements listed in District Rule 325.F. In addition, ExxonMobil shall maintain logs for the information listed below. These logs shall be made available to the District upon request:

(i) On a monthly basis, the total oil emulsion and produced gas production along with the number of days per month of production.

(j) Reporting: The equipment listed in this section are subject to all the reporting requirements listed in District Rule 325.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 this permit. [*Re: District Rules 325 and 1303, PTO 9101, 40 CFR 70.6*]

C.10 **Compliance Verification Reports.** Twice a year, ExxonMobil shall submit a compliance verification report to the District. Each report shall document compliance with all permit, rule or other statutory requirements during the prior two calendar quarters. The first report shall cover calendar quarters 1 and 2 (January through June) and the second report shall cover calendar quarters 3 and 4 (July through December). The reports shall be submitted by March 1st and September 1st each year. Each report shall contain information necessary to verify compliance with the emission limits and other requirements of this permit and shall document compliance separately for each calendar quarter. These reports shall be in a format approved by the District. Compliance with all limitations shall be documented in the submittals. All logs and other basic source data not included in the report shall be made available to the District upon request. The second report shall also include an annual report for the prior four quarters. Pursuant to Rule 212, a completed *District Annual Emissions Inventory* questionnaire should be included in the annual report or submitted electronically via the District website. ExxonMobil may use the Compliance Verification Report in lieu of the Emissions Inventory questionnaire if the format of the CVR is acceptable to the District's Emissions Inventory Group and if ExxonMobil submits a statement signed by a responsible official stating that the information and calculations of quantifies of emissions of air pollutants presented in the CVR are accurate and complete to best knowledge of the individual certifying the statement. The report shall include the following information:

(k) *Fugitive Hydrocarbons*. Rule 331/Enhanced Monitoring fugitive hydrocarbon I&M program data (on a quarterly basis):

(i) Inspection summary.

(ii) Record of leaking components. Record of leaks from critical components.

(iii) Record of leaks from components that incur five repair actions within a continuous 12-month period.

(iv) Record of component repair actions including dates of component re-inspections.

(v) Listing of components installed as BACT under District Rule 331 and Rule 802 during the reporting year, as approved by the District.

(vi) *Tanks/Sumps/Separators*.

(vii) On a monthly basis, the total oil emulsion and produced gas production along with the number of days per month of production.

(viii) Process stream analyses data as required from the *Process Stream Sampling and Analysis* permit condition.

(ix) For the Group A and B units, list any changes in service type and provide an explanation of the change(s) that occurred.

C.14 **Offsets - NSR.** ExxonMobil shall offset all emissions of reactive organic compounds ("ROC") associated with the issuance of ATC 9640, ATC 9827, and ATC Mod 12682-01 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*]

C.26 **Decision of Issuance 067.** The requirements of the District approved Decision of Issuance 067 (and all modifications thereof) are hereby incorporated into this Permit to Operate as an enforceable part of this permit. This Decision of Issuance remains active for the life of the ERCs. This is defined as (a) the ERCs are being used by a project as approved by the District, or (b) the ERCs remain unused in an active ERC Certificate.

D. District-Only Conditions

The following section lists permit conditions that are not enforceable by the USEPA or the public. However, these conditions are enforceable by the District and the State of California. These conditions are issued pursuant to District Rule 206 (*Conditional Approval of Authority to Construct or Permit to Operate*

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 provided written comments to the District and these comments require no modification to this permit. 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.

(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.

_____

AIR POLLUTION CONTROL OFFICER

_____

DATE

Attachments:

- Table 5.1 - 5.6 Mass Emission Limits
- Table 7.1 - ROC Emission Offset Requirements
- Permit Equipment List
- Permit Evaluation for Permit to Operate 12682

Note:

- This permit supersedes ATC Mod 12682 01.

Table 5.1: Operating Equipment Description
ExxonMobil Platform Harmony
PTO 12682

Equipment Item	Description			Device Specifications				Usage Data			Maximum Operating Schedule				References
		Exxon ID #	APCD DeviceNo	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	
Combustion - External	Central Process Heater	EAP-603	5329	PG	0.0080	27.2	MMBtu/hr	--	--	--	1	24	2,190	8,760	B
	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	--	--	8,127	comp-lp	--	--	--	1	24	2,190	8,760	
Valve/Connection	Category B		102369	--	--	6,314	comp-lp	--	--	--	1	24	2,190	8,760	D
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 =	15,732	comp-lp								
Fugitive Components - Oil															
Valve/Connection	Valves - Accessible		102364	--	--	7,636	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 =	7,765	comp-lp								

Table 5.2: Equipment Emission Factors
ExxonMobil Platform Harmony
PTO 12682

Equipment Item	Description			Emission Factors							Reference
		Exxon ID #	APCD DeviceNo	NOx	ROC	CO	SOx	PM	PM10	Units	
Combustion - Engines	East Crane	ZZZ-507	5326	2.696	0.30	0.95	0.0015	0.31	0.31	lb/MMBtu	A
	Emergency Production Generator	ZAN-515	5347	14.061	1.120	3.030	0.0057	1.000	1.000	g/bhp-hr	
	Emergency Drilling Generator	ZAN-515	5346	14.061	1.120	3.030	0.0057	1.000	1.000	g/bhp-hr	
	Emergency Firewater Pump A	PBE-357	5348	14.061	1.120	3.030	0.0069	1.000	1.000	g/bhp-hr	
	Emergency Firewater Pump B	PBE-367	7123	14.061	1.120	3.030	0.0069	1.000	1.000	g/bhp-hr	
	B - Side Cement Pumping Skid		112508	2.80	0.20	2.600	0.0052	0.150	0.150	g/bhp-hr	
	C - Side Cement Pumping Skid		112507	2.80	0.20	2.600	0.0052	0.150	0.150	g/bhp-hr	
	Cuttings Reinjection Pump		112509	2.80	0.20	2.600	0.0052	0.150	0.150	g/bhp-hr	
Combustion - External	Central Process Heater	EAP-603	5329	0.036	0.0054	0.297	0.010	0.0075	0.0075	lb/MMBtu	B
	Central Process Heater (PR)	EAP-603	5329	0.036	0.0054	0.297	0.011	0.0075	0.0075	lb/MMBtu	
Combustion - Flare	Purge and Pilot	EAL-602	112394	0.068	0.12	0.37	0.010	0.020	0.020	lb/MMBtu	C
	Planned - continuous	EAL-602	112392	0.068	0.12	0.37	2.600	0.020	0.020	lb/MMBtu	
	Planned - other	EAL-602	112393	0.068	0.12	0.37	2.600	0.020	0.020	lb/MMBtu	
	Unplanned	EAL-602	112395	0.068	0.12	0.37	2.600	0.020	0.020	lb/MMBtu	
Fugitive Components - Gas											
Valve/Connection	Accessible		102370	--	0.0147	--	--	--	--	lb/day-clp	
Valve/Connection	Category B		102369	--	0.0110	--	--	--	--	lb/day-clp	D
Valve/Connection	Category F		102376	--	0.0074	--	--	--	--	lb/day-clp	
Valve/Connection	Unsafe		102371	--	0.0736	--	--	--	--	lb/day-clp	
Pressure Safety Valves	To VRS/Flare		111884	--	0.0147	--	--	--	--	lb/day-clp	
Fugitive Components - Oil											
Valve/Connection	Valves - Accessible		102364	--	0.0009	--	--	--	--	lb/day-clp	D
Valve/Connection	Category B		102367	--	0.0007	--	--	--	--	lb/day-clp	
Valve/Connection	Category F		102368	--	0.0004	--	--	--	--	lb/day-clp	
Valve/Connection	Pump Seals - Tandem		102363	--	0.0009	--	--	--	--	lb/day-clp	

Table 5.3: Short-Term Emissions
ExxonMobil Platform Harmony
PTO 12682

Equipment Item	Description			NOx		ROC		CO		SOx		PM		PM10		Federal
		Exxon ID #	APCD DeviceNo	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	Enforceability
Combustion - Engines	East Crane	ZZZ-507	5326	8.33	200.00	0.93	22.37	2.94	70.47	0.00	0.11	0.96	23.00	0.96	23.00	FE
	Emergency Production Generator	ZAN-515	5347	41.66	83.33	3.32	6.64	8.98	17.96	0.02	0.03	2.96	5.93	2.96	5.93	FE
	Emergency Drilling Generator	ZAN-515	5346	71.52	143.03	5.70	11.40	15.41	30.82	0.03	0.06	5.09	10.17	5.09	10.17	FE
	Emergency Firewater Pump A	PBE-357	5348	13.33	26.66	1.06	2.12	2.87	5.74	0.01	0.01	0.95	1.90	0.95	1.90	FE
	Emergency Firewater Pump B	PBE-367	7123	16.27	32.55	1.30	2.59	3.51	7.01	0.01	0.02	1.16	2.31	1.16	2.31	FE
	B - Side Cement Pumping Skid		112508	3.09	74.07	0.22	5.29	2.87	68.78	0.01	0.14	0.17	3.97	0.17	3.97	FE
	C - Side Cement Pumping Skid		112507	3.09	74.07	0.22	5.29	2.87	68.78	0.01	0.14	0.17	3.97	0.17	3.97	FE
	Cuttings Reinjection Pump		112509	2.78	66.67	0.20	4.76	2.58	61.90	0.01	0.12	0.15	3.57	0.15	3.57	FE
Combustion - External	Central Process Heater	EAP-603	5329	0.98	23.50	0.15	3.52	8.08	193.88	0.28	6.79	0.20	4.90	0.20	4.90	FE
	Central Process Heater (PR)			0.98	5.88	0.15	0.88	8.08	48.47	0.30	1.80	0.20	1.22	0.20	1.22	FE
Combustion - Flare	Purge and Pilot	EAL-602	112394	0.04	0.94	0.07	1.67	0.21	5.14	0.01	0.14	0.01	0.28	0.01	0.28	FE
	Planned - continuous	EAL-602	112392	0.05	1.29	0.10	2.28	0.29	7.01	2.05	49.24	0.02	0.38	0.02	0.38	FE
	Planned - other	EAL-602	112393	--	--	--	--	--	--	--	--	--	--	--	--	NE
	Unplanned	EAL-602	112395	--	--	--	--	--	--	--	--	--	--	--	--	NE
Fugitive Components - Gas																
Valve/Connection	Accessible		102370	--	--	4.98	119.61	--	--	--	--	--	--	--	--	NE
Valve/Connection	Category B		102369	--	--	2.90	69.70	--	--	--	--	--	--	--	--	NE
Valve/Connection	Category F		102376	--	--	0.37	8.82	--	--	--	--	--	--	--	--	NE
Valve/Connection	Unsafe		102371	--	--	0.27	6.48	--	--	--	--	--	--	--	--	NE
Pressure Safety Valves	To VRS/Flare		111884	--	--	0.00	0.06	--	--	--	--	--	--	--	--	NE
	sub-total =					8.53	204.61									FE
Fugitive Components - Oil																
Valve/Connection	Valves - Accessible		102364	--	--	0.28	6.70	--	--	--	--	--	--	--	--	NE
Valve/Connection	Category B		102367	--	--	0.00	0.05	--	--	--	--	--	--	--	--	NE
Valve/Connection	Category F		102368	--	--	0.00	0.02	--	--	--	--	--	--	--	--	NE
Valve/Connection	Pump Seals - Tandem		102363	--	--	0.00	0.01	--	--	--	--	--	--	--	--	NE
	sub-total =					0.28	6.78									FE

Table 5.4: Long-Term Emissions
ExxonMobil Platform Harmony
PTO 12682

Equipment Item	Description			NOx		ROC		CO		SOx		PM		PM10		Federal
		Exxon ID #	APCD DeviceNo	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	Enforceability
Combustion - Engines	East Crane	ZZZ-507	5326	4.56	18.25	0.51	2.04	1.61	6.43	0.00	0.01	0.52	2.10	0.52	2.10	FE
	Emergency Production Generator	ZAN-515	5347	4.17	4.17	0.33	0.33	0.90	0.90	0.00	0.00	0.30	0.30	0.30	0.30	FE
	Emergency Drilling Generator	ZAN-515	5346	7.15	7.15	0.57	0.57	1.54	1.54	0.00	0.00	0.51	0.51	0.51	0.51	FE
	Emergency Firewater Pump A	PBE-357	5348	1.33	1.33	0.11	0.11	0.29	0.29	0.00	0.00	0.09	0.09	0.09	0.09	FE
	Emergency Firewater Pump B	PBE-367	7123	1.63	1.63	0.13	0.13	0.35	0.35	0.00	0.00	0.12	0.12	0.12	0.12	FE
	B - Side Cement Pumping Skid		112508	3.38	13.52	0.24	0.97	3.14	12.55	0.01	0.03	0.18	0.72	0.18	0.72	FE
	C - Side Cement Pumping Skid		112507	3.38	13.52	0.24	0.97	3.14	12.55	0.01	0.03	0.18	0.72	0.18	0.72	FE
	Cuttings Reinjection Pump		112509	3.04	12.17	0.22	0.87	2.82	11.30	0.01	0.02	0.16	0.65	0.16	0.65	FE
Combustion - External	Central Process Heater	EAP-603	5329	1.07	4.29	0.16	0.64	8.85	35.38	0.31	1.24	0.22	0.89	0.22	0.89	FE
	Central Process Heater (PR)			0.04	0.16	0.01	0.02	0.32	1.29	0.01	0.05	0.01	0.03	0.01	0.03	FE
Combustion - Flare	Purge and Pilot	EAL-602	112394	0.04	0.17	0.08	0.31	0.23	0.94	0.01	0.03	0.01	0.05	0.01	0.05	FE
	Planned - continuous	EAL-602	112392	0.06	0.24	0.10	0.42	0.32	1.28	2.25	8.99	0.02	0.07	0.02	0.07	FE
	Planned - other	EAL-602	112393	0.06	0.26	0.12	0.50	0.38	1.54	2.70	10.79	0.02	0.08	0.02	0.08	FE
	Unplanned	EAL-602	112395	0.35	1.39	0.61	2.46	1.89	7.55	13.26	53.04	0.10	0.41	0.10	0.41	FE
Fugitive Components - Gas																
Valve/Connection	Accessible		102370	--	--	5.46	21.83	--	--	--	--	--	--	--	--	NE
Valve/Connection	Category B		102369	--	--	3.18	12.72	--	--	--	--	--	--	--	--	NE
Valve/Connection	Category F		102376	--	--	0.40	1.61	--	--	--	--	--	--	--	--	NE
Valve/Connection	Unsafe		102371	--	--	0.30	1.18	--	--	--	--	--	--	--	--	NE
Pressure Safety Valves	To VRS/Flare		111884	--	--	0.00	0.01	--	--	--	--	--	--	--	--	NE
	sub-total =					9.34	37.34									FE
Fugitive Components - Oil																
Valve/Connection	Valves - Accessible		102364	--	--	0.306	1.223	--	--	--	--	--	--	--	--	NE
Valve/Connection	Category B		102367	--	--	0.002	0.009	--	--	--	--	--	--	--	--	NE
Valve/Connection	Category F		102368	--	--	0.001	0.004	--	--	--	--	--	--	--	--	NE
Valve/Connection	Pump Seals - Tandem		102363	--	--	0.000	0.001	--	--	--	--	--	--	--	--	NE
	sub-total =					0.31	1.24									FE

Table 5.5: Total Permitted Facility Emissions
ExxonMobil Platform Harmony
PTO 12682

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	--	8.81	--	--	--	--
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	--	--	--	--
Totals (lb/hr)	**368.78**	**33.09**	**81.90**	**2.52**	**24.32**	**23.82**

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	--	211.39	--	--	--	--
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	--	--	--	--
Totals (lb/day)	**5,058.97**	**454.49**	**1,177.31**	**58.40**	**318.98**	**308.64**

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	--	9.64	--	--	--	--
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	--	--	--	--
Totals (TPQ)	**57.81**	**15.33**	**32.02**	**18.59**	**4.68**	**4.60**

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	--	38.58	--	--	--	--
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	--	--	--	--
Totals (TPY)	**188.38**	**57.83**	**118.75**	**74.27**	**15.59**	**15.25**

Table 5.6: Federal Potential to Emit
ExxonMobil Platform Harmony
PTO 12682

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	--	8.81	--	--	--	--
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	--	--	--	--
Totals (lb/hr)	**368.78**	**33.09**	**81.90**	**2.52**	**24.32**	**23.82**

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	--	211.39	--	--	--	--
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	--	--	--	--
Totals (lb/day)	**5,058.97**	**454.49**	**1,177.31**	**58.40**	**318.98**	**308.64**

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	--	9.64	--	--	--	--
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	--	--	--	--
Totals (TPQ)	**57.81**	**15.33**	**32.02**	**18.59**	**4.68**	**4.60**

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	--	38.58	--	--	--	--
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	--	--	--	--
Totals (TPY)	**188.38**	**57.83**	**118.75**	**74.27**	**15.59**	**15.25**

TABLE 5.8 - Net Emissions Increase
ExxonMobil Platform Harmony
PTO 12682

I. This Projects "I" NEI-90

Permit	Date	NOx		ROC		CO		SOx		PM		PM10	
No.	Issued	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
Totals		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

II. This Facility's "P1s"
Enter all facility "P1" NEI-90s below:

Permit	Date	NOx		ROC		CO		SOx		PM		PM10	
No.	Issued	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
PTO 9101	1/11/2000			6.920	0.850								
ATC/PTO 10183	4/23/2001	449.520		0.140		71.160	0.290	22.520		26.600		25.530	
ATC/PTO 10736	11/9/2001			6.700									
ATC/PTO 10992	4/1/2003			2.551	0.466								
ATC/PTO 11234	9/24/2004	1.061	0.000	-0.170	0.000	0.262	0.000	0.081	0.000	0.086	0.000	0.083	0.000
ATC 12682	12/22/2008			8.490	1.550								
ATC Mod 12682 01	8/2/2010			5.23	0.95								
Totals		**450.58**	**0.00**	**29.86**	**3.82**	**71.42**	**0.29**	**22.60**	**0.00**	**26.69**	**0.00**	**25.61**	**0.00**

Notes: (1) Facility NEI from IDS.

III. This Facility's "P2" NEI-90 Decreases
Enter all facility "P2" NEI-90s below:

Permit	Date	NOx		ROC		CO		SOx		PM		PM10	
No.	Issued	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
Totals		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Notes: (1) Facility NEI from IDS.

IV. This Facility's Pre-90 "D" Decreases
Enter all facility "D" decreases below:

Permit	Date	NOx		ROC		CO		SOx		PM		PM10	
No.	Issued	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
Totals		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Notes: (1) Facility "D" from IDS.

V. Calculated This Facility's NEI-90
Table below summarizes facility NEI-90 as equal to: I+ (P1-P2) -D

	NOx		ROC		CO		SOx		PM		PM10	
Term	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
Project "I"	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P1	450.58	0.00	29.86	3.82	71.42	0.29	22.60	0.00	26.69	0.00	25.61	0.00
P2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FNEI-90	**450.58**	**0.00**	**29.86**	**3.82**	**71.42**	**0.29**	**22.60**	**0.00**	**26.69**	**0.00**	**25.61**	**0.00**

Notes: (1) Resultant FNEI-90 from above Section I thru IV data.
(2) Totals only apply to permits for this facility ID. Totals may not appear correct due to rounding.
(3) Because of rounding, values in this table shown as 0.00 are less than 0.005, but greater than zero.

Table 7.1 ROC Emission Offset Requirements
ExxonMobil Platform Harmony
PTO 12682

Reactive Organic Compunds (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
Total NEI:	**0.96**	**3.82**

Emission Reduction Sources (NEI)	Emission Reductions		Distance Factor [a]	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[b]	0.10	0.40	1.2	0.08	0.33
3. ERC # 0079-0206[c]	0.2780	1.1120	1.5	0.1853	0.7413
4. ERC # 0080-0307[d]	0.3310	1.3240	1.5	0.2207	0.8827
5. ERC # 0081-0308[e]	0.6570	2.6280	1.5	0.4380	1.7520
6. ERC # 0083-1103[f]	0.6400	2.5600	6.0	0.1067	0.4267
7 ERC # 0136-0811[g]	0.46	1.86	1.2	0.39	1.55
8 ERC # 0188-0811[h]	0.286	1.146	1.2	0.239	0.955
Total Offsets:	**2.64**	**10.55**		**1.56**	**6.24**

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.

PERMIT EQUIPMENT LIST - TABLE A

PTO 12682 / FID: 08018 Platform Harmony / SSID: 01482

A PERMITTED EQUIPMENT

1 Injection Water Surge Vessel

Device ID #	**111875**	***Device Name***	**Injection Water Surge Vessel**
Rated Heat Input		*Physical Size*	620.00 BBL
Manufacturer	Patrick Fabrication	*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Vertical, 30 feet high by 12 feet in diameter, equipped with a gas blanket.		

2 Fugitive Hydrocarbon Components

2.1 Pressure Safety Valves - To VRS/Flare

Device ID #	**111884**	***Device Name***	**Pressure Safety Valves - To VRS/Flare**
Rated Heat Input		*Physical Size*	4.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Includes 4 clps from ATC 12682.		

2.2 Fugitive HC Components - CLP - Gas/Cond Svc (Table L)

Device ID #	**005332**	***Device Name***	**Fugitive HC Components - CLP - Gas/Cond Svc (Table L)**
Rated Heat Input		*Physical Size*	8127.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Includes 7446 existing clps plus 573 new clps from ATC 12682 plus 108 new clps from ATC Mod 12682 01.		

2.3 Valve/Connection Unsafe Gas

Device ID #	**102371**	***Device Name***	**Valve/Connection Unsafe Gas**
Rated Heat Input		*Physical Size*	88.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Includes 39 existing clps plus 49 new clps from ATC Mod 12682 01		

2.4 Fugitive HC Components - CLP - Oil Svc (Table L)

Device ID #	**005331**	***Device Name***	**Fugitive HC Components - CLP - Oil Svc (Table L)**
Rated Heat Input		*Physical Size*	7636.00 Component Leakpath
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Includes 7530 existing clps plus 66 new clps from ATC 12682 plus 40 new clps from ATC Mod 12682 01.		

B EXEMPT EQUIPMENT

1 Water Injection Pump #1

Device ID #	**111876**	***Device Name***	**Water Injection Pump #1**
Rated Heat Input		*Physical Size*	4,500 Horsepower (Electric Motor)
Manufacturer	Sulzer	*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	201.A No Potential To Emit Air Contaminants
Location Note			
Device Description	Eight stage centrifugal pump.		

2 Water Injection Pump #2

Device ID #	**111877**	***Device Name***	**Water Injection Pump #2**
Rated Heat Input		*Physical Size*	4,500 Horsepower (Electric Motor)
Manufacturer	Sulzer	*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 201.A No Potential To Emit Air Contaminants	
Location Note			
Device Description	Eight stage centrifugal pump.		

3 Water Injection Pump #3

Device ID #	**111878**	***Device Name***	**Water Injection Pump #3**
Rated Heat Input		*Physical Size*	4,500 Horsepower (Electric Motor)
Manufacturer	Sulzer	*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 201.A No Potential To Emit Air Contaminants	
Location Note			
Device Description	Eight stage centrifugal pump.		

4 Seawater Booster Pump #1

Device ID #	**111879**	***Device Name***	**Seawater Booster Pump #1**
Rated Heat Input		*Physical Size*	150 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 201.A No Potential To Emit Air Contaminants	
Location Note			
Device Description	Used to supply make-up seawater to the injection water surge vessel.		

5 Seawater Booster Pump #2

Device ID #	**111880**	***Device Name***	**Seawater Booster Pump #2**
Rated Heat Input		*Physical Size*	150 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:* 201.A No Potential To Emit Air Contaminants	
Location Note			
Device Description	Used to supply make-up seawater to the injection water surge vessel.		

Santa Barbara County
Air Pollution Control District

PERMIT EVALUATION for
PERMIT to OPERATE No. 12682

1.0 BACKGROUND

1.1 General: ATC 12682 was issued to install and operate a new vertical injection water surge vessel, three water injection pumps, and associated fugitive hydrocarbon components to handle produced water being diverted from the Las Flores Canyon Oil & Gas Plant to Platform Harmony for injection into the producing formation. ATC Mod 12682-01 was issued for an increase in the permitted fugitive component leak path count and superseded ATC 12682.

Prior to installation of this equipment, five permitted oil and gas wells (HA-11, HA-23, HA-26, HA-28, HA-30) were converted to water injection wells. The related fugitive component and emission reductions are documented and quantified in this permit and in DOI 067.

1.2 Permit History: ATC 12682 was issued 12/22/2008 and the SCDP began 6/10/2010. ATC Mod 12682-01 was issued 8/2/2010 and used the same SCDP start date. For a complete permit history for Platform Harmony, refer PTO 9101-R3.

1.3 Compliance History: The equipment listed in this permit is new and has no compliance history.

2.0 ENGINEERING ANALYSIS

2.1 Equipment/Processes: The injection water surge tank (MBJ-111) is a vertical pressure vessel with a 12' ID and 30' S/S. A combination of produced water and deoxygenated seawater flows into the vessel from upstream systems and is discharged to the suction of the injection pumps. Level controls maintain the liquid level in the vessel. Water is added to the vessel from the minimum flow recycle loops on the injection pumps. Blanket gas is supplied from the gas pipeline on Harmony.

2.2 Emission Controls: The vapor outlet from the injection water surge tank is connected to both the vent recovery system and the flare system. Normally vapors flow through a control valve (PV-111-5) to the vent recovery system. During abnormal level fluctuations (quickly rising levels) the vapor volume from the injection water surge tank may exceed the capacity of the vent recovery system. When the vapor volume reaches the capacity of the vent recovery system, PV-111-5 will start to close thus controlling the vapor flow to the vent recovery system and causing the pressure to

build in the injection water surge tank. If the pressure in the injection water surge tank reaches ~4 psig two control valves (PV-111-3&4) will start to open and send vapors to the flare system.

The injection water surge tank also has two 100% redundant pressure relief valves (PSVs) tied into the flare system for emergency relief. The surge vessel is designed with a safety system to prevent water from being relieved through the PSVs.

2.3 Emission Factors: The emission factors and emission calculations are documented in Tables 5.1 through 5.6 of this permit. The PSVs are normally vented to a vapor recovery system, but since they may vent to a flare if the vapor recovery system cannot handle the total volume of flow, the 80% control efficiency for PSVs vented to atmosphere or flares is used to calculate the emission factor.

2.4 Reasonable Worst Case Emission Scenario: Tables 5.1 through 5.6 of the permit define the operational characteristics that comprise the reasonable worst case-operating scenario for this permit. Any flaring emissions are considered "unplanned flaring" and ExxonMobil must account for the emissions for compliance with unplanned flaring volumes and emissions limits. Given that the primary design is to VRU, these potential emissions from the new surge vessel are not considered NEI.

2.5 Emission Calculations: Detailed emission calculation spreadsheets may be found in Tables 5.1 through 5.6 for the emission increases associated with this project. See Attachment A for the emission decreases from the reduction in fugitive emission components associated with the conversion of wells HA-11, HA-23, HA-26, HA-28, HA-30.

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 permit has enforceable operating conditions that ensure the equipment is operated properly.

2.9 Monitoring Requirements: Monitoring of the equipment's operational limits are required to ensure that these are enforceable along with the parameters required by District Rules 325.F and 331.G.

2.10 Recordkeeping and Reporting Requirements: The permit requires that the data which is monitored be recorded and reported to the District.

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 303. Nuisance
Rule 325. Crude Oil Production and Separation
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 certain requirements must be applied to a project (e.g., offsets, AQIA, PSD BACT). This increase in emission in this permit contributes to the NEI for this facility. The NEI is calculated below:

Gas Components:

$$108\ valves/connections - \ accessible \times \frac{0.2230\ lb\ THC}{day - lp} \times \frac{0.33\ lb\ ROC}{lb\ THC} \times (1 - 0.80) = 1.590\ lb\ ROC/day$$

$$49\ valves/connections - \ unsafe \times \frac{0.2230\ lb\ THC}{day - lp} \times \frac{0.33\ lb\ ROC}{lb\ THC} \times (1 - 0.00) = 3.606\ lb\ ROC/day$$

Oil Components:

$$40\ valves/connections - \ accessible \times \frac{0.0133\ lb\ THC}{day - lp} \times \frac{0.33\ lb\ ROC}{lb\ THC} \times (1 - 0.80) = 0.035\ lb\ ROC/day$$

1.590 + 3.606 + 0.035 = 5.231 lb ROC/day
5.231 lb ROC/day x 365 day/year / 2000 lb/ton = 0.955 tpy
0.955 tpy / 4 qtr/year = 0.239 tpq

5.0 AQIA

The project is not subject to the Air Quality Impact Analysis requirements of Regulation VIII.

6.0 OFFSETS/ERCs

6.1 Offsets: This project increases ROC emissions due to the installation of fugitive hydrocarbon components. The Exxon - SYU project exceeds the offset thresholds defined by Regulation VIII, therefore the emission increases will be offset as described by Rule 802 - Nonattainment Review. See Table 7.1 for the specific ROC emission offset requirements for this facility.

6.2 ERCs: ROC ERCs were generated by the conversion of five oil and gas wells to water injection wells. DOI 067 documents these ERCs.

7.0 AIR TOXICS

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

8.0 CEQA / LEAD AGENCY

Santa Barbara County Air Pollution Control District is the CEQA lead agency for the offshore portion of the Hondo Field Water Injection Project. (The Santa Barbara County Planning and Development Department issued Land use Permit 07-LUP-00000-00835 and Coastal Development Permit 07CDP-0000-00123 for the onshore portions of this project.) This project is exempt from CEQA pursuant to the Environmental Review Guidelines for the Santa Barbara County District (revised November 16, 2000). Appendix A (*District Projects Exempt from CEQA* and *Equipment or Operations Exempt from CEQA*} provides an exemption specifically for fixed roof tanks with a capacity less than 10,000 barrels that are connected to a vapor control system and for fugitive hydrocarbon emitting components (e.g., valves and flanges) where the total number of component leak-paths being added is less than 1,500 and meet or exceed the requirements of District Rule 331. No further action is necessary.

9.0 SCHOOL NOTIFICATION

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

10.0 PUBLIC and AGENCY NOTFICATION PROCESS/COMMENTS ON DRAFT PERMIT

This project was not subject to public notice. There were no comments on the draft permit.

11.0 FEE DETERMINATION

Fees for the District's work efforts are assessed on a reimbursable basis. The project code for Platform Harmony is 200219.

12.0 RECOMMENDATION

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

J. Menno	December 2011		December 2011
AQ Engineer	Date	Supervisor	Date

13.0 ATTACHMENTS

A. Emission Calculation
B. IDS Tables

ATTACHMENT A
EMISSION CALCULATIONS

Santa Barbara County APCD Fugitive ROC Emissions Calculation - CLP Method

ADMINISTRATIVE INFORMATION	
Attachment: A-1 (Well Conversion Emission Reductions)	
Company: ExxonMobil	ExxonMobil
Facility: Platform Harmony	Platform Harmony
Processed by: JJM	LXK
Date: October 31, 2011	5/21/2010
Path & File Name:	

Facility Type: (Choose *one* facility type by marking the box to the right of the facility type with an "x")

Production Field		**Gas Processing Plant**		**Refinery**		**Offshore Platform**	x

Component:	**Count**	**THC[1] Emission Factor (lb/day-clp)**	**ROC/THC Ratio**	**Uncontrolled ROC Emission (lb/day)**	**Control[2,3] Efficiency**	**Controlled ROC Emission (lb/hr)**	**Controlled ROC Emission (lb/day)**	**Controlled ROC Emission (Tons/Qtr)**	**Controlled ROC Emission (Tons/Yr)**
Gas Condensate Service									
Valves - Accessible/Inaccessible	20	0.223	0.33	1.47	0.80	0.01	0.29	0.01	0.05
Valves - Unsafe		0.223	0.33	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows		0.223	0.33	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv		0.223	0.33	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A		0.223	0.33	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B	5	0.223	0.33	0.37	0.85	0.00	0.06	0.00	0.01
Valves - Category C		0.223	0.33	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D		0.223	0.33	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E		0.223	0.33	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F		0.223	0.33	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G		0.223	0.33	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/Inaccessible	158	0.223	0.33	11.63	0.80	0.10	2.33	0.11	0.42
Flanges/Connections - Unsafe		0.223	0.33	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A		0.223	0.33	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B	20	0.223	0.33	1.47	0.85	0.01	0.22	0.01	0.04
Flanges/Connections - Category C		0.223	0.33	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D		0.223	0.33	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E		0.223	0.33	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F		0.223	0.33	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G		0.223	0.33	0.00	0.92	0.00	0.00	0.00	0.00
Compressor Seals - To Atm		0.223	0.33	0.00	0.80	0.00	0.00	0.00	0.00
Compressor Seals - To VRS/Flare		0.223	0.33	0.00	1.00	0.00	0.00	0.00	0.00
PSV - To Atm		0.223	0.33	0.00	0.80	0.00	0.00	0.00	0.00
PSV - To VRS/Flare		0.223	0.33	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single		0.223	0.33	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem		0.223	0.33	0.00	1.00	0.00	0.00	0.00	0.00
Sub Total	203			14.94		0.12	2.90	0.13	0.53
Oil Service									
Valves - Accessible/Inaccessible	11	0.0133	0.33	0.05	0.80	0.00	0.01	0.00	0.00
Valves - Unsafe		0.0133	0.33	0.00	0.00	0.00	0.00	0.00	0.00
Valves - Bellows		0.0133	0.33	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Bellows / Background ppmv		0.0133	0.33	0.00	1.00	0.00	0.00	0.00	0.00
Valves - Category A		0.0133	0.33	0.00	0.84	0.00	0.00	0.00	0.00
Valves - Category B		0.0133	0.33	0.00	0.85	0.00	0.00	0.00	0.00
Valves - Category C		0.0133	0.33	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category D		0.0133	0.33	0.00	0.87	0.00	0.00	0.00	0.00
Valves - Category E		0.0133	0.33	0.00	0.88	0.00	0.00	0.00	0.00
Valves - Category F		0.0133	0.33	0.00	0.90	0.00	0.00	0.00	0.00
Valves - Category G		0.0133	0.33	0.00	0.92	0.00	0.00	0.00	0.00
Flanges/Connections - Accessible/Inaccessible	82	0.0133	0.33	0.36	0.80	0.00	0.07	0.00	0.01
Flanges/Connections - Unsafe		0.0133	0.33	0.00	0.00	0.00	0.00	0.00	0.00
Flanges/Connections - Category A		0.0133	0.33	0.00	0.84	0.00	0.00	0.00	0.00
Flanges/Connections - Category B		0.0133	0.33	0.00	0.85	0.00	0.00	0.00	0.00
Flanges/Connections - Category C		0.0133	0.33	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category D		0.0133	0.33	0.00	0.87	0.00	0.00	0.00	0.00
Flanges/Connections - Category E		0.0133	0.33	0.00	0.88	0.00	0.00	0.00	0.00
Flanges/Connections - Category F		0.0133	0.33	0.00	0.90	0.00	0.00	0.00	0.00
Flanges/Connections - Category G		0.0133	0.33	0.00	0.92	0.00	0.00	0.00	0.00
PSV - To Atm		0.0133	0.33	0.00	0.80	0.00	0.00	0.00	0.00
PSV - To VRS/Flare		0.0133	0.33	0.00	1.00	0.00	0.00	0.00	0.00
Pump Seals - Single		0.0133	0.33	0.00	0.80	0.00	0.00	0.00	0.00
Pump Seals - Dual/Tandem		0.0133	0.33	0.00	1.00	0.00	0.00	0.00	0.00
Sub Total	93			0.41		0.00	0.08	0.00	0.01
Total	**296**			**15.35**		**0.12**	**2.98**	**0.14**	**0.54**
Total with 20% Shutdown Discount							**2.38**	**0.11**	**0.43**

Notes:

1 APCD P&P # 6100.061.1998.

2 A 80% efficiency is assigned to fugitive components Rule 331 implementation.

3 Emission Control efficiencies for the "category x" components are identified in "FHC Control Factors (ver 2.0)"

ATTACHMENT “B”
IDS Tables

PERMIT POTENTIAL TO EMIT

	NO_x	ROC	CO	SO_x	PM	PM_{10}
lb/day	--	5.23	--	--	--	--
lb/hr						
TPQ						
TPY	--	0.955	--	--	--	--

FACILITY POTENTIAL TO EMIT

	NO_x	ROC	CO	SO_x	PM	PM_{10}
lb/day	4,840.07	513.42	957.31	83.96	300.44	290.15
lb/hr						
TPQ						
TPY	126.35	69.86	72.61	60.09	10.22	10.02

FACILITY NEI90

	NO_x	ROC	CO	SO_x	PM	PM_{10}
lb/day	450.58	29.86	71.42	22.60	26.69	25.81
lb/hr						
TPQ						
TPY	0.00	3.82	0.29	0.00	0.00	0.00

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.