



DRAFT

**PERMIT to OPERATE No. 4441-R4
and
PART 70 *RENEWAL* OPERATING PERMIT No. 4441-R4**

**VENOCO – ELLWOOD
SEEP CONTAINMENT DEVICE**

**PRC LEASE 3242.1
SOUTH ELLWOOD OFFSHORE FIELD
SANTA BARBARA COUNTY, CALIFORNIA
STATE TIDELANDS**

OPERATOR

Venoco, Inc.

OWNERSHIP

Venoco, Inc.

**Santa Barbara County
Air Pollution Control District**

December, 2008

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ABBREVIATIONS/ACRONYMS

APCO	Air Pollution Control Officer
AP-42	USEPA <i>Compilation of Emission Factors</i> document
API	American Petroleum Institute
AQAP	Air Quality Attainment Plan
ASTM	American Society for Testing and Materials
ATC	Authority to Construct
bbl	barrel (42 gallons per barrel)
BS&W	Basic water and sediment
bhp	brake horsepower
bpd	barrels per day
BSFC	brake-specific fuel consumption
Btu	British thermal unit
CAAA	Clean Air Act Amendments of 1990
CAP	Clean Air Plan
CARB	California Air Resources Board
CEMS	continuous emissions monitoring system
CFR	Code of Federal Regulations
clp	component leak-path
CO	carbon monoxide
CO ₂	carbon dioxide
COA	corresponding offshore area
EOF	Ellwood Onshore Facility
ERC	emission reduction credit
FHC	fugitive hydrocarbon
FR	Federal Register
gr	grain
g	gram
gal	gallon
HHV	higher heating value
H ₂ S	hydrogen sulfide
H&SC	California Health and Safety Code
IC	internal combustion
I&M	inspection and maintenance
k	thousand
kV	kilovolt
lb.	pound
LHV	lower heating value
MCC	motor control center
MM, mm	million
MSDS	Material Safety Data Sheet
MW	molecular weight
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NGL	natural gas liquids
NO _x	oxides of nitrogen (calculated as NO ₂)
NSPS	New Source Performance Standards
PFD	process flow diagram
P&ID	piping and instrumentation diagram
ppmv	parts per million volume (concentration)

psia	pounds per square inch absolute
psig	pounds per square inch gauge
PM	particulate matter
PM ₁₀	particulate matter less than 10 mm in size
PSV	pressure safety valve
PTO	Permit to Operate
PRD	pressure relief device
PVRV	pressure vacuum relief valve
ROC	reactive organic compounds
SBCAPCD	Santa Barbara County Air Pollution Control District or District or APCD
scf	standard cubic feet
scfd	standard cubic feet per day
scfm	standard cubic feet per minute
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SO _x	sulfur oxides
TEG	triethylene glycol
TOC	total organic compounds
tpq	tons per quarter
tpy	tons per year
TVP	true vapor pressure
USEPA	United States Environmental Protection Agency or EPA
UPS	uninterrupted power supply
VRS	vapor recovery system
wt %	weight percent

1.0 Introduction

1.1 Purpose

General. The Santa Barbara County Air Pollution Control District (APCD) is responsible for implementing all applicable federal, state and local air pollution requirements that affect any stationary source of air pollution in Santa Barbara County. The federal requirements include regulations listed in the Code of Federal Regulations: 40 CFR Parts 50, 51, 52, 55, 60, 61, 63, 68, 70 and 82. The State regulations may be found in the California Health & Safety Code, Division 26, Section 39000 et seq. The applicable local regulations can be found in the APCD's Rules and Regulations. This is a combined permitting action that covers both the Federal Part 70 permit (*Part 70 Operating Permit No. 4441*) as well as the State Operating Permit (*Permit to Operate No. 4441*).

The County is designated as an ozone nonattainment area for both the state and federal ambient air quality standards. The County is also designated a nonattainment area for the state PM₁₀ ambient air quality standard.

Part 70 Permitting. This is the third renewal of the Seep Containment Device's Part 70 operating permit and satisfies the permit issuance requirements of the APCD's Part 70 operating permit program. The APCD triennial permit reevaluation has been combined with this Part 70 Permit renewal. The Seep Containment Device is a part of the *Venoco – Ellwood* stationary source (SSID = 1063), which is a major source for VOC¹, NO_x and CO. Conditions listed in this permit are based on federal, state or APCD-enforceable rules and requirements. Sections 9.A, 9.B and 9.C of this permit are enforceable by the APCD, the USEPA and the public since these sections are federally enforceable under Part 70. Where any reference contained in Sections 9.A, 9.B or 9.C refers to any other part of this permit, that part of the permit referred to is federally enforceable. Conditions listed in Section 9.D are "APCD-only" enforceable.

Pursuant to the stated aims of Title V of the CAAA of 1990 (i.e., the Part 70 operating permit program), this permit has been designed to meet two objectives. First, compliance with all conditions in this permit would ensure compliance with all federally enforceable requirements for the facility. Second, the permit would be a comprehensive document to be used as a reference by the permittee, the regulatory agencies and the public to assess compliance.

1.2 Facility Overview

1.2.1 General: Venoco is the owner and operator of the Seep Containment Device, located within the State PRC 3242.1 boundary in approximately 220 feet of water, approximately 2.25 miles off the Coal Oil Point in Goleta. The Seep Containment Device is situated in the Southern Zone² of Santa Barbara County. Figure 1.1 shows the relative location of the Seep Containment Device off the Santa Barbara County coast.

¹ VOC as defined in Regulation XIII has the same meaning as reactive organic compounds as defined in Rule 102. The term ROC shall be used throughout the remainder of this document, but where used in the context of the Part 70 regulation, the reader shall interpret the term as VOC.

² APCD Rule 102, Definition: "Southern Zone"

The *Venoco – Ellwood* stationary source consists of the following 4 facilities:

- Platform Holly (FID= 3105)
- Ellwood Onshore Facility (FID= 0028)
- Beachfront Lease (FID= 3035)
- Seep Containment Device (FID= 1065)

The Seep Containment Device consists of the following systems:

- Oil & gas containment structure
- Gas pipeline to the Ellwood Onshore Facility
- Underwater valves, fittings and other hardware attached to containment structure

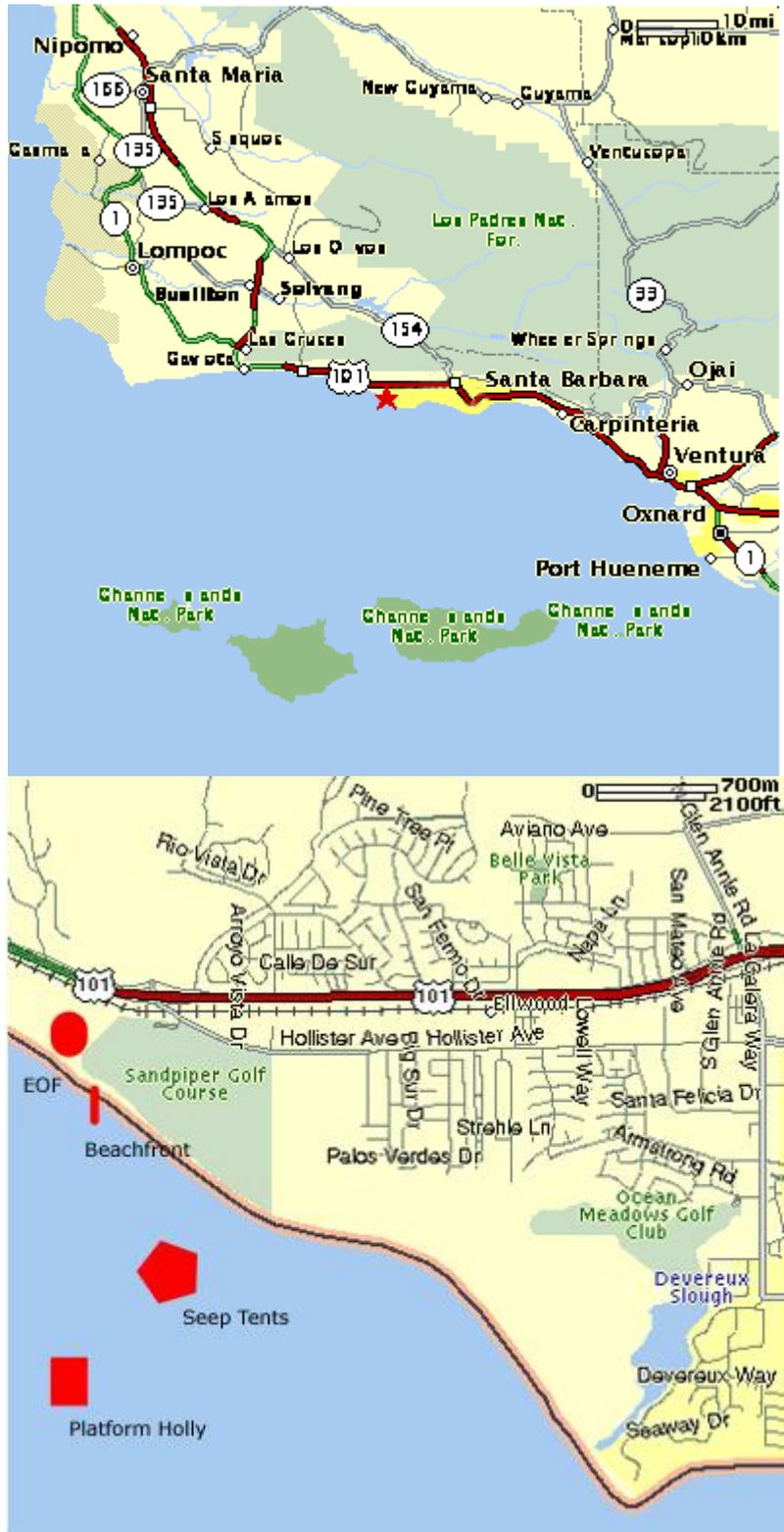
1.2.2 Facility Operations Overview: The Seep Containment Device currently collects gas emissions that would have naturally been released to the environment. This operation reduces emissions; and creates reactive organic compound (“ROC”) emission reduction credits (“ERCs”). Venoco leases these ERCs from the Seep Containment Device to sources requiring emission offsets. Gas (and oil, sometimes) naturally emanate from the Santa Barbara Channel floor under the Seep Containment Device; and, rise to the positioned liquid traps in the containment dome. Gas rises to the top of the trap at a pressure equal to the water head, approximately 75 psi. This pressure drives the gas, via a sub-sea pipeline, to the Ellwood Onshore Facility where it is processed. Occasional cleaning of the containment device using solvents containing ROCs may be needed.

The facility, on an average, processed approximately 320 thousand scf of gas per day during May 2004 through April 2005 period while its design capacity is 8 million scf/day. The hydrocarbon liquid holding capacity of the containment device is 700 barrels.

1.2.3 Facility Permits Overview: The APCD issued an NSR permit (ATC 4441) to ARCO on March 4, 1982 to install and operate the Seep Containment Device. All equipment emission/operation limits in ATC/PTO 4441 are, therefore, federally enforceable. Prior to this in 1979, ARCO had submitted a detailed proposal to the Santa Barbara County, the State Coastal Land Commission and the APCD to capture ocean floor seep gases and obtain ROC emission reduction credits. The proposal contained the results of a Santa Barbara Channel seep emissions and impact study. After some revisions of terms, all concerned parties including the APCD and ARCO signed a Memorandum of Agreement (MOA) in July 1981 agreeing to the final ARCO proposal. The California ARB also approved this MOA. It allowed the Seep Containment Device operator varying ERCs, based on the amount of gas collected by the device and its actual VOC species composition. In June 1986, the APCD modified PTO 4441 to allow ARCO to modify the Seep Containment Device (re-alignment of the sub-sea structure) and capture more of the seep gases (since the design capacity, i.e., 8 MMSCFD of gas, of the original equipment was not exceeded, an ATC was not required).

The ATC/PTO 4441 (and the MOA) essentially aim to satisfy all federal, state and local guidelines and stipulations concerning the generation of ERCs to be provided by the Seep Containment Device. PTO 4441 serves to keep the facility operational so that the non-anthropogenic emissions to the ambient air in the coastal area are kept lower.

Figure 1.1 Location Map for Seep Containment Device



1.3 Emission Sources

Any likely emissions from the Seep Containment Device itself would come from its fugitive emission components, such as the pipeline valves and flanges. These emissions would occur under water. The emissions are considered insignificant for APCD permitting purposes.

A list of equipment at the Seep Containment Device is, nonetheless, provided in Section 10.4.

1.4 Emission Control Overview

No air emission controls are used at the Seep Containment Device.

1.5 Offsets/Emission Reduction Credit Overview

Offsets: The Seep Containment Device does not require emission offsets.

Emission Reduction Credits: The Seep Containment Device operations provide emission reduction credits (ERCs) to ExxonMobil's Santa Ynez Project in Las Flores Canyon in Goleta, Arguello, Inc.'s Point Arguello Project in Gaviota and the Gaviota Terminal Company's Marine Terminal project in Gaviota.

1.6 Part 70 Operating Permit Overview

- 1.6.1. Federally enforceable Requirements: All federally enforceable requirements are listed in 40 CFR Part 70.2 (*Definitions*) under "applicable requirements." These include all SIP-approved APCD Rules, all conditions in the APCD-issued Authority to Construct permits and all conditions applicable to major sources under federally promulgated rules and regulations. All these requirements are enforceable by the public under CAAA. (*see Tables 3.1 and 3.2 for a list of federally enforceable requirements*).
- 1.6.2. Insignificant Emissions Units: Insignificant emission units are defined under APCD Rule 1301 as any regulated air pollutant emitted from the unit, excluding HAPs, that are less than 2 tons per year based on the unit's potential to emit and any HAP regulated under section 112(g) of the Clean Air Act that does not exceed 0.5 ton per year based on the unit's potential to emit. Insignificant activities must be listed in the Part 70 application with supporting calculations. Applicable requirements may apply to insignificant units. (See Section 10.5 for the Insignificant Emissions Unit list)
- 1.6.3. Federal Potential to Emit: The federal potential to emit (PTE) of a stationary source does not include fugitive emissions of any pollutant, unless the source is: (1) subject to a federal NSPS/NESHAP requirement, or (2) included in the 29-category source list specified in 40 CFR 1.166 or 52.21. The federal PTE does include all emissions from any insignificant emissions units. (*See Section 5.4 for the federal PTE for this source*)
- 1.6.4. Permit Shield: The operator of a major source may be granted a shield: (a) specifically stipulating any federally enforceable conditions that are no longer applicable to the source and (b) stating the reasons for such non-applicability. The permit shield must be based on a request from the source and its detailed review by the APCD. Permit shields cannot be granted

indiscriminately with respect to all federal requirements. Venoco has not made a request for a permit shield.

- 1.6.5. Alternate Operating Scenarios: A major source may be permitted to operate under different operating scenarios, if appropriate descriptions of such scenarios are included in its Part 70 permit application and if such operations are allowed under federally enforceable rules. Venoco made no request for permitted alternative operating scenarios.
- 1.6.6. Compliance Certification: Part 70 permit holders must certify compliance with all applicable federally enforceable requirements including permit conditions. Such certification must accompany each Part 70 permit application; and, be re-submitted semi-annually on or before March 1st and September 1st as specified in the permit. Each certification is signed by a “responsible official” of the owner/operator company whose name and address is listed prominently in the Part 70 permit. (*see Section 1.6.9 below*)
- 1.6.7. Permit Reopening: Part 70 permits are re-opened and revised if the source becomes subject to a new rule or new permit conditions are necessary to ensure compliance with existing rules. The permits are also re-opened if they contain a material mistake or the emission limitations or other conditions are based on inaccurate permit application data.
- 1.6.8. MACT/Hazardous Air Pollutants (HAPs): Part 70 permits also regulate emission of HAPs from major sources through the imposition of maximum achievable control technology (MACT), where applicable. The federal PTE for HAP emissions from a source is computed to determine MACT or any other rule applicability. (*see Sections 4.10 and 5.5*).
- 1.6.9. Compliance Assurance Monitoring (CAM): The CAM rule became effective on April 22, 1998. This rule affects emission units at the source subject to a federally enforceable emission limit or standard that uses a control device to comply with the emission standard, and either pre-control or post-control emissions exceed the Part 70 source emission thresholds. Sources subject to CAM Rule must submit a CAM Rule Compliance Plan along with their Part 70 operating permit renewal applications. (*see Section 4.8.3*). The APCD has determined that no emissions unit at this facility is subject to CAM Rule.
- 1.6.10 Responsible Official: The designated responsible official and their mailing address are:

Ed O'Donnell, Senior Vice President
Venoco, Inc.
6267 Carpinteria Avenue, Suite 100
Carpinteria, CA 93013-1423

2.0 Process Description

2.1 Process Summary

The Seep Containment Device consists of two 100 feet square and 20 feet high pyramid structures placed side by side on the ocean floor, each equipped with liquid traps at its apex. The overall height from the ocean floor to the top of the underwater liquid traps is approximately 50 feet. The device is a gravity structure with no ocean bottom penetration, and is marked by a locator buoy.

Gas and oil naturally emanate from the Santa Barbara Channel floor under the Seep Containment Device; and, rise to the positioned liquid traps in the containment dome. Gas rises to the top of the trap at a pressure equal to the water head, approximately 75 psi. This pressure drives the gas, via a sub-sea pipeline, to the Ellwood Onshore Facility where it is metered and processed. The design capacity of the gas collection system is 8 MMSCFD, but the current average gas flow rate is 0.39 MMSCFD.

2.2 Support Systems

The operations at the Seep Containment Device require periodic maintenance servicing to dispose of oil accumulation inside the pyramidal structure. Pigging is also occasionally performed on the Seep gas pipeline. The equipment associated with the Seep Containment Device pig launcher is included in the permit for the Ellwood Onshore Facility.

2.3 Maintenance/Degreasing Activities

No degreasing activity occurs at the site. Maintenance includes repair or replacement of hardware or piping components as necessary during periodic underwater inspections.

2.4 Planned Process Turnarounds

Process turnarounds on the permitted equipment may be scheduled to occur if the Seep Containment Device needs to be shut down for maintenance. Venoco has not listed any emissions from planned process turnarounds that are subject to permit.

2.5 Other Processes

Unplanned Activities/Emissions: Venoco does not anticipate or foresee any circumstances that would require special equipment use and result in excess emissions.

2.6 Detailed Process Equipment Listing

Refer Attachment 10.4 for a complete listing of all permitted equipment.

3.0 Regulatory Review

3.1 Rule Exemptions Claimed

☞ APCD Rule 202 (Exemptions to Rule 201): Venoco has requested a number of exemptions under this rule. An exemption from permit, however, does not necessarily grant relief from any applicable prohibitory rule. The following exemptions were approved by the APCD:

- Section D.6 (*De Minimis*). As of August 29, 2008, Venoco has documented the total de minimis emissions increase at the stationary source to be 17.95 lbs/day of ROC, there are no de minimis increases at the Seeps. Detailed records of the de minimis emissions changes can be viewed at the APCD's office.

☞ APCD Rule 326 (Storage of Reactive Organic Compound Liquids): Tanks subject to Rule 325 are exempt from the requirements of Rule 326. Since the liquid traps on the seep containment device are subject to Rule 325, they are exempt from Rule 326.

3.2 Compliance with Applicable Federal Rules and Regulations

3.2.1 40 CFR Parts 51/52 {New Source Review(Non-attainment Area Review and Prevention of Significant Deterioration)}: The Seep Containment Device obtained its Authority to Construct and Permit to Operate in March, 1982. Compliance with APCD Regulations VIII (*New Source Review*) and XIII (*Part 70 Operating Permits Program*) ensures that any future modifications to the facility will comply with these regulations.

3.2.2 40 CFR Part 60 {New Source Performance Standards}: None of the equipment in this permit is subject NSPS requirements.

3.2.3 40 CFR Part 61 {NESHAP}: None of the equipment in this permit is subject to NESHAP requirements.

3.2.4 40 CFR Part 63 {MACT}: On June 17, 1999, EPA promulgated Subpart HH, a National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Oil and Natural Gas Production and Natural Gas Transmission and Storage. Venoco submitted for APCD review an *Initial Notification of Applicability* on June 16, 2000 in which they indicated that the Subpart HH requirements applied to this facility. The APCD has determined that the Seep Containment Device is not a storage vessel with potential for flash emissions, and thus, the MACT does not apply to this facility.

3.2.5 40 CFR Part 64 {Compliance Assurance Monitoring}: This rule became effective on April 22, 1998. This rule affects emission units at the source subject to a federally enforceable emission limit or standard that use a control device to comply with the emission standard, and either pre-control or post-control emissions exceed the Part 70 source emission thresholds. Compliance with this rule was evaluated and it was determined that no emission units at this facility are currently subject to CAM. See section 4.8.3 for further information on CAM.

3.2.6 40 CFR Part 70 {Operating Permits}: This Subpart is applicable to the Seep Containment Device. Table 3.1 lists the federally enforceable APCD promulgated rules that are “generic” and

apply to the Seep Containment Device. Table 3.2 lists the federally enforceable APCD promulgated rules that are “unit-specific” that apply to the Seep Containment Device. These tables are based on data available from the APCD’s administrative files and from Venoco/Venoco’s Part 70 Operating Permit application No. 9553 filed in May 1996 and their renewal applications submitted on April 13, 2001 and on May 10, 2005. Table 3.4 includes the adoption dates of these rules.

In its Part 70 permit application, Venoco certified compliance with all existing APCD rules and permit conditions. This certification is also required of Venoco semi-annually. Issuance of this permit and compliance with all its terms and conditions will ensure that Venoco complies with the provisions of all applicable Subparts.

3.3 Compliance with Applicable State Rules and Regulations

- 3.3.1 Division 26, Air Resources {California Health & Safety Code}: The administrative provisions of the Health & Safety Code apply to this facility and will be enforced by the APCD. These provisions are APCD-enforceable only.
- 3.3.2 California Code of Regulations, Title 17, Sub-Chapter 6, Sections 92000 through 92530: These sections specify the standards by which abrasive blasting activities are governed throughout the State. All abrasive blasting activities at the Seep Containment Device are required to conform to these standards. Compliance will be assessed through onsite inspections. These standards are APCD-enforceable only. However, CAC Title 17 does not preempt enforcement of any SIP-approved rule that may be applicable to abrasive blasting activities.

3.4 Compliance with Applicable Local Rules and Regulations

- 3.4.1 Applicability Tables: Tables 3.1 and 3.2 list the federally enforceable APCD rules that apply to the facility. Table 3.3 lists the non-federally-enforceable APCD rules that apply to the EOF. Table 3.4 lists the adoption date of all rules that apply to the facility.
- 3.4.2 Rules Requiring Further Discussion: The last facility inspection occurred March 11, 2008. The inspector reported that the facility was in compliance with all APCD rules and permit conditions. This section provides a more detailed discussion regarding the applicability and compliance of certain rules.

The following is a rule-by-rule evaluation of compliance for the Seep Containment Device:

Rule 210 - Fees: Pursuant to Section G, APCD permits are reevaluated every three years. This includes the re-issuance of the underlying permit to operate. Also included are the PTO fees. The fees for this facility are based on the APCD Rule 210, Fee Schedule A. Attachment 10.2 presents the fee calculations for the reevaluated permit.

Rule 301 - Circumvention: This rule prohibits the concealment of any activity that would otherwise constitute a violation of Division 26 (Air Resources) of the California H&SC and APCD rules and regulations. To the best of the APCD’s knowledge, Venoco is operating in compliance with this rule.

Rule 303 - Nuisance: This rule prohibits the operator from causing a public nuisance due to the discharge of air contaminants. Compliance with this rule is achieved based on the periodic

inspections and review of site logs kept at the Ellwood Onshore Facility for listing any complaints concerning Seep emissions. An APCD reevaluation of the facility in 1988 noted that odor complaints from the Isla Vista neighborhood of Goleta had decreased notably starting with the operation of the facility.

Rule 310 - Odorous Organic Compounds: This rule prohibits the discharge of H₂S and organic sulfides that result in a ground level impact beyond the property boundary in excess of either 0.06 ppmv averaged over 3 minutes and 0.03 ppmv averaged over 1 hour. As long as the Seep Containment Device is properly maintained on a regular basis (i.e., pipeline inspections, corrosion protection, etc.) and as long as the Seep gas compressors at the EOF are operated, there should be no potential to violate the requirements of this rule.

Rule 317 - Organic Solvents: This rule sets specific prohibitions against the discharge of emissions of both photochemically and non-photochemically reactive organic solvents (40 lb/day and 3,000 lb/day respectively). It is not known if solvents may be used on the Seep Containment Device during normal operations for degreasing by wipe cleaning and for use in paints and coatings in maintenance operations. If so, there is the potential to exceed the limits under Section B.2 during significant surface coating activities. Venoco will be required to maintain records to ensure compliance with this rule.

Rule 322 - Metal Surface Coating Thinner and Reducer: This rule prohibits the use of photochemically reactive solvents for use as thinners or reducers in metal surface coatings. Venoco will be required to maintain records during maintenance operations to ensure compliance with this rule.

Rule 323 - Architectural Coatings: This rule sets standards for the application of surface coatings. The primary coating standard that will apply is for Industrial Maintenance Coatings that have a limit of 250 gram ROC per liter of coating, as applied. Venoco is required to comply with the Administrative requirements under Section F for each container.

Rule 324 - Disposal and Evaporation of Solvents: This rule prohibits any source from disposing more than one and a half gallons of any photochemically reactive solvent per day by means that will allow the evaporation of the solvent to the atmosphere. Venoco will be required to maintain records to ensure compliance with this rule.

Rule 325 - Crude Oil Production and Separation: This rule, adopted January 25, 1994, applies to equipment used in the production, processing, separation, gathering, and storage of oil and gas prior to custody transfer. The seep containment devices are used in the gathering of natural gas, and the liquid traps are used in the gathering of crude oil, therefore this rule applies.

The liquid traps are considered storage tanks for the purpose of this rule. The liquid traps comply with the requirements of the rule because they are liquid tight and connected to the seep devices. Any vapors from the liquid traps are transported to the EOF along with collected seep gas. The liquid traps do not collect any appreciable amount of crude oil, therefore the crude oil analysis requirements of the rule do not apply to the seep containment device.

Section E requires that all produced gas be controlled at all times, except for wells undergoing routine maintenance. Compliance with Section E is met by directing all Seep gas to the EOF.

Section H requires the operator to visually inspect the liquid traps at least once every 5 years. The only recordkeeping requirement of the rule which applies to the seep device is the requirement to keep records of the results of the tank inspections.

Rule 330 - Surface Coating of Metal Parts and Products: This rule sets standards for many types of coatings applied to metal parts and products. In addition to the ROC standards, this rule sets operating standards for application of the coatings, labeling and recordkeeping. It is not anticipated that Venoco will trigger the requirements of this rule. Compliance shall be based on site inspections and records maintained by Venoco.

Rule 505 - Breakdown Conditions: This rule describes the procedures that Venoco must follow when a breakdown condition occurs to any emissions unit associated with the Seep Containment Device. A breakdown condition is defined as an unforeseeable failure or malfunction of (1) any air pollution control equipment or related operating equipment which causes a violation of an emission limitation or restriction prescribed in the APCD Rules and Regulations, or by State law, or (2) any in-stack continuous monitoring equipment, provided such failure or malfunction:

- a. Is not the result of neglect or disregard of any air pollution control law or rule or regulation;
- b. Is not the result of an intentional or negligent act or omission on the part of the owner or operator;
- c. Is not the result of improper maintenance;
- d. Does not constitute a nuisance as defined in Section 41700 of the Health and Safety Code;
- e. Is not a recurrent breakdown of the same equipment

3.5 Compliance History

3.5.1 Variances: Since January 2006, no variances have been issued by the APCD Hearing Board for operation of the Seep Containment Device.

3.5.2 Violations: Since January 2006, one Notice of Violation (NOV) has been issued due to operation of the Seep Containment Device.

NOV 9095 was issued for failing to operate, inspect, maintain, and repair the seep device. The gas line became plugged due to lack of maintenance and the seep device was non-operational from June 14, 2007 until repairs were completed February 6, 2008.

Table 3.1 - Generic Federally enforceable APCD Rules

Generic Requirements	Affected Emission Units	Basis for Applicability
<u>RULE 101</u> : Compliance by Existing Installations	All emission units	Emission of pollutants
<u>RULE 102</u> : Definitions	All emission units	Emission of pollutants
<u>RULE 103</u> : Severability	All emission units	Emission of pollutants
<u>RULE 201</u> : Permits Required	All emission units	Emission of pollutants
<u>RULE 202</u> : Exemptions to Rule 201	Applicable emission units, as listed in Form 1302-H in Part 70 application 9553	Insignificant activities/emissions, per size/rating/function
<u>RULE 203</u> : Transfer	All emission units	Change of ownership
<u>RULE 204</u> : Applications	All emission units	Addition of new equipment or modification to existing equipment.
<u>RULE 205</u> : Standards for Granting Permits	All emission units	Emission of pollutants
<u>RULE 206</u> : Conditional Approval of Authority to Construct or Permit to Operate	All emission units	Applicability of relevant Rules
<u>RULE 207</u> : Denial of Applications	All emission units	Applicability of relevant Rules
<u>RULE 208</u> : Action on Applications - Time Limits	All emission units. Not applicable to Part 70 permit applications.	Addition of new equipment or modification to existing equipment.
<u>RULE 212</u> : Emission Statements	All emission units	Administrative
<u>RULE 301</u> : Circumvention	All emission units	Any pollutant emission
<u>RULE 302</u> : Visible Emissions	All emission units	Particulate matter emissions
<u>RULE 303</u> : Nuisance	All emission units	Emissions that can injure, damage or offend.
<u>RULE 305</u> : PM Concentration - South Zone	Each PM source	Emission of PM in effluent gas
<u>RULE 309</u> : Specific Contaminants	All emission units	Combustion contaminant emission
<u>RULE 311</u> : Sulfur Content of Fuel	All combustion units	Use of fuel containing sulfur
<u>RULE 317</u> : Organic Solvents	Emission units using solvents	Solvent used in process operations.
<u>RULE 321</u> : Solvent Cleaning Operations	Emission units using solvents	Solvent used in process operations.
<u>RULE 322</u> : Metal Surface Coating Thinner and Reducer	Emission units using solvents	Solvent used in process operations.

Generic Requirements	Affected Emission Units	Basis for Applicability
<u>RULE 323</u> : Architectural Coatings	Paints used in maintenance and surface coating activities	Application of architectural coatings.
<u>RULE 324</u> : Disposal and Evaporation of Solvents	Emission units using solvents	Solvent used in process operations.
<u>RULE 353</u> : Adhesives and Sealants	Emission units using adhesives and sealants	Adhesives and sealants use.
<u>RULE 505.A, B1, D</u> : Breakdown Conditions	All emission units	Breakdowns where permit limits are exceeded or rule requirements are not complied with.
<u>RULE 603</u> : Emergency Episode Plans	Stationary sources with PTE greater than 100 tpy	Venoco – Ellwood is a major source.
<u>REGULATION VIII</u> : New Source Review	All emission units	Addition of new equipment or modification to existing equipment. Applications to generate ERC Certificates.
<u>REGULATION XIII (RULES 1301-1305)</u> : Part 70 Operating Permits	All emission units	Venoco – Ellwood is a major source.

Table 3.2 - Unit-Specific Federally enforceable APCD Rules

Unit-Specific Requirements	Affected Emission Units	Basis for Applicability
<u>RULE 325</u> : Crude Oil Production and Separation	Seep device/liquid trap: Emission units capable of venting gases	Venting prohibited under Rule 325.E
<u>RULE 330</u> : Surface Coating of Metal Parts & Products	All surface coating used for any metal coating operations	Metal surfaces.

Table 3.3 - Non-Federally enforceable APCD Rules

Requirement	Affected Emission Units	Basis for Applicability
<u>RULE 210</u> : Fees	All emission units	Administrative
<u>RULE 310</u> : Odorous Org. Sulfides	All emission units	Emission of organic sulfides
<u>RULES 501-504</u> : Variance Rules	All emission units	Administrative
<u>RULE 505.B2, B3, C, E, F, G</u> : Breakdown Conditions	All emission units	Breakdowns where permit limits are exceeded or rule requirements are not complied with.

Requirement	Affected Emission Units	Basis for Applicability
<u>RULES 506-519</u> : Variance Rules	All emission units	Administrative

Table 3.4 - Adoption Dates of APCD Rules Applicable at Issuance of Permit

Rule No.	Rule Name	Adoption Date
Rule 101	Compliance by Existing Installations: Conflicts	June 1981
Rule 102	Definitions	June 19, 2008
Rule 103	Severability	October 23, 1978
Rule 201	Permits Required	April 17, 1997
Rule 202	Exemptions to Rule 201	June 19, 2008
Rule 203	Transfer	April 17, 1997
Rule 204	Applications	April 17, 1997
Rule 205	Standards for Granting Permits	April 17, 1997
Rule 206	Conditional Approval of Authority to Construct or Permit to Operate	October 15, 1991
Rule 208	Action on Applications - Time Limits	April 17, 1997
Rule 212	Emission Statements	October 20, 1992
Rule 301	Circumvention	October 23, 1978
Rule 302	Visible Emissions	June 1981
Rule 303	Nuisance	October 23, 1978
Rule 305	Particulate Matter Concentration - Southern Zone	October 23, 1978
Rule 309	Specific Contaminants	October 23, 1978
Rule 310	Odorous Organic Sulfides	October 23, 1978
Rule 311	Sulfur Content of Fuels	October 23, 1978
Rule 317	Organic Solvents	October 23, 1978
Rule 321	Solvent Cleaning Operations	September 18, 1997
Rule 322	Metal Surface Coating Thinner and Reducer	October 23, 1978
Rule 323	Architectural Coatings	July 18, 1996
Rule 324	Disposal and Evaporation of Solvents	October 23, 1978

Rule No.	Rule Name	Adoption Date
Rule 325	Crude Oil Production and Separation	January 25, 1994
Rule 326	Storage of Reactive Organic Compound Liquids	December 14, 1993
Rule 331	Fugitive Emissions Inspection and Maintenance	December 10, 1991
Rule 333	Control of Emissions from Reciprocating Internal Combustion Engines	April 17, 1997
Rule 342	Control of Oxides of Nitrogen (NO _x) from Boilers, Steam Generators and Process Heaters	April 17, 1997
Rule 343	Petroleum Storage Tank Degassing	December 14, 1993
Rule 344	Petroleum Sumps, Pits and Well Cellars	November 10, 1994
Rule 359	Flares and Thermal Oxidizers	June 28, 1994
Rule 360	Emissions of Oxides of Nitrogen From Large Water Heaters and Small Boilers	October 17, 2002
Rule 361	Small Boilers, Steam Generators, and Process Heaters	January 17, 2008
Rule 505	Breakdown Conditions (Section A, B1 and D)	October 23, 1978
Rule 603	Emergency Episode Plans	June 15, 1981
Rule 801	New Source Review	April 17, 1997
Rule 802	Nonattainment Review	April 17, 1997
Rule 803	Prevention of Significant Deterioration	April 17, 1997
Rule 804	Emission Offsets	April 17, 1997
Rule 805	Air Quality Impact and Modeling	April 17, 1997
Rule 806	Emission Reduction Credits	April 17, 1997
Rule 901	New Source Performance Standards (NSPS)	May 16, 1996
Rule 1301	General Information	September 18, 1997
Rule 1302	Permit Application	November 9, 1993
Rule 1303	Permits	November 9, 1993
Rule 1304	Issuance, Renewal, Modification and Reopening	November 9, 1993
Rule 1305	Enforcement	November 9, 1993

4.0 Engineering Analysis

4.1 General

The engineering analyses performed for this permit were limited to the review of:

- ☞ facility process flow diagrams
- ☞ emission factors and calculation methods for each emissions unit
- ☞ emission control equipment (including RACT, BACT, NSPS, NESHAP, MACT)
- ☞ emission source testing, sampling, CEMS, CAM
- ☞ process monitors needed to ensure compliance

Unless noted otherwise, default ROC/THC reactivity profiles from the APCD's document titled "VOC/ROC Emission Factors and Reactivities for Common Source Types" dated 3/12/01 (ver. 1.2) was used to determine non-methane, non-ethane fraction of THC.

4.2 Stationary Combustion Sources

This facility is not equipped with any stationary combustion devices.

4.3 Fugitive Hydrocarbon Sources

There are no fugitive emission components for the Seep Containment Device. Onshore components associated with the gas pipeline are included with Ellwood Onshore Facility's permit.

4.4 Tanks/Vessels/Sumps/Separators

Crude Oil Storage: The Seep Containment Device utilizes two liquid traps at each pyramid structure. The total capacity of the traps is 700 barrels. Emissions from these underwater, pressurized traps cannot be calculated because no accurate and reliable methodology is available. These are also estimated to be insignificant based on equipment specifics.

4.5 Other Emission Sources

No other emission sources are known for this facility.

4.6 Vapor Recovery/Control Systems

The Seep Containment Device is a control device itself. It is not required to be equipped with a vapor recovery system.

4.7 BACT/NSPS/NESHAP/MACT

None of the devices at the facility are subject to best available control technology (BACT) provisions of the APCD or the federal NSPS/NESHAP/MACT standards for pollutant emissions.

4.8 CEMS/Process Monitoring/CAM

4.8.1 CEMS: There are no continuous emission monitors (CEMS) at this facility.

4.8.2 Process Monitoring: In many instances, ongoing compliance beyond a single (snap shot) source test is assessed by the used of process monitoring systems. Examples of these monitors include:

engine hour meters, fuel usage meters, water injection mass flow meters, flare gas flow meters and hydrogen sulfide analyzers. Once these process monitors are in place, it is important that they be well maintained and calibrated to ensure that the required accuracy and precision of the devices are within specifications. At a minimum, the following process monitors will require to be calibrated and maintained in good working order:

- ☞ Seep Gas Flow Meter (located at Ellwood Onshore Facility) recording the daily volume of gas from the Seep Containment Device.

Note: To implement the above calibration and maintenance requirements, a *Process Monitor Calibration and Maintenance Plan* is required of Venoco. The *Process Monitor Calibration and Maintenance Plan* submitted by Venoco and approved by the APCD (see APCD PTO 7904-R8 for EOF for description) covers the Seep Gas Flow Meter listed above (the only process meter for the Seep Device). Thus, this Plan and any subsequent updates of the Plan will fulfill this requirement. (See also Permit Conditions 9.D.14 and 9.D.15 for Plan update requirement)

- 4.8.3 **CAM:** This rule affects emission units at the source subject to a federally enforceable emission limit or standard that uses a control device to comply with the emission standard, and either pre-control or post-control emissions exceed the Part 70 source emission thresholds. A review of the equipment associated with the Seep Device indicates that there are no emission units or activities which has a potential to emit exceeding 100 tpy, based on this Rule. Thus, no Seep Device activities are subject to the CAM rule.

4.9 Source Testing/Sampling

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

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

- ☞ Seep gas: *Quarterly* analysis of gas for its VOC organic compounds speciation.

All sampling and analyses are required to be performed according to APCD approved procedures and methodologies. It is important that all sampling and analysis be traceable by chain of custody procedures.

4.10 Part 70 Engineering Review: Hazardous Air Pollutant Emissions

Hazardous air pollutant emissions from the different categories of emission units at the facility are estimated to be insignificant (less than 0.24 lbs/day).

5.0 Emissions

5.1 General

The Seep Containment Device is a collection of contrivances to capture non-anthropogenic ROC emissions from the sea floor. All gases collected from the Seep Containment Device are sent via subsea pipeline to the Ellwood Onshore Facility. There are no estimated potential emissions associated with the Seep Containment Device.

5.2 Permitted Emission Limits - Emission Units

No emissions unit associated with the facility was deemed to possess any potential-to-emit.

5.3 Permitted Emission Limits - Facility Totals

The total potential-to-emit for all emission units associated with the facility is considered to be zero

5.4 Part 70: Federal Potential to Emit for the Facility

The federal Part 70 potential to emit for the facility is considered to be zero.

5.5 Part 70: Hazardous Air Pollutant Emissions for the Facility

Emissions of hazardous air pollutants (HAP) are not computed for the facility since the facility emissions are considered to be zero.

5.6 Exempt Emission Sources/Part 70 Insignificant Emissions

There are no exempt/insignificant emissions sources associated with the Seep Containment Device.

5.7 Net Emissions Increase Calculation

This facility's net emissions increase since November 15, 1990 (the day the federal Clean Air Act Amendments was adopted in 1990) is zero. The NEI for the Venoco Ellwood stationary source is shown in Attachment 10.1. This stationary source includes Platform Holly, EOF, Beachfront, and Seep Collection Device facilities. This emissions history is relevant for any future modifications to the Seep Containment Device.

6.0 Air Quality Impact Analyses

6.1 Modeling

Air quality modeling has not been required for this facility.

6.2 Increments

An air quality increment analysis has not been required for this facility

6.3 Monitoring

Air quality monitoring is not required for this facility.

6.4 Health Risk Assessment

The *Venoco – Ellwood* stationary source is subject to the Air Toxics Hot-Spots Program (AB-2588). However, based on the estimated ROC and toxic emissions inventory for the Seep Containment Device facility, cancer and non-cancer toxics risks off the facility property (PRC Lease 3242.1) are estimated to be below the APCD's AB 2588 significance thresholds.

7.0 CAP Consistency, Offset Requirements and ERCs

7.1 General

The *Venoco – Ellwood* stationary source is located in an ozone nonattainment area. Santa Barbara County is designated nonattainment for state one-hour ambient air quality standards for ozone. In addition, the County is designated nonattainment with the state PM₁₀ ambient air quality standard. Therefore, emissions from all emission units at the stationary source and its constituent facilities must be consistent with the provisions of the USEPA and State approved Clean Air Plans (CAP) and must not interfere with progress toward attainment of state ambient air quality standards. Under APCD regulations, any modifications at the *Venoco – Ellwood* source that result in an emissions increase of any nonattainment pollutant exceeding 25 lbs/day must apply BACT (NAR). Additional increases may trigger offsets at the source or elsewhere so that there is a net air quality benefit for Santa Barbara County (note: the NO_x emission offset threshold is already triggered). These offset threshold levels are 55 lbs/day for all non-attainment pollutants except PM₁₀ for which the level is 80 lbs/day.

7.2 Clean Air Plan

Santa Barbara County's air quality has historically violated both the state and federal ozone standards. Since 1999, however, local air quality data show that every monitoring location in the County complied with the federal one-hour ambient air quality standard for ozone. The Santa Barbara County Air Pollution Control District adopted the 2001 Clean Air Plan (2001 CAP) that demonstrated attainment of the federal one-hour ozone standard and continued maintenance of that standard through 2015. Consequently, on August 8, 2003, the United States Environmental Protection Agency (USEPA) designated Santa Barbara County as an attainment area for the federal one-hour ozone standard.

On June 15, 2004, USEPA replaced the federal one-hour ozone standard with an eight-hour ozone standard for Santa Barbara County and most parts of the country. This eight-hour ozone standard, originally promulgated by USEPA on July 18, 1997, is set at 0.08 parts per million measured over eight hours and is more protective of public health and more stringent than the federal one-hour standard. For the purposes of the federal eight-hour ozone standard, Santa Barbara County has been designated attainment.

On August 16, 2007 the APCD Board adopted the 2007 Clean Air Plan to chart a course of action that will provide for ongoing maintenance of the federal eight-hour ozone standard through the year 2014 as well as the expeditious attainment of the state one-hour ozone standard. These plans have been developed for Santa Barbara County as required by both the 1998 California Clean Air Act and the 1990 Federal Clean Air Act Amendments.

7.3 Offset Requirements

The Seep Containment Device does not currently require emission offsets.

7.4 Emission Reduction Credits

The Seep Containment Device provides ROC emission reduction credits to Plains Exploration and Production's (PXP's) Point Arguello Project (formerly owned and operated by Arguello, Inc.) under the APCD PTO 5704, ExxonMobil's Santa Ynez Unit Project under the APCD PTO 5651. The Seep Containment Device formerly provided ROC emission reduction credits to Gaviota Terminal Co.'s GIMT Project under the APCD ATC/PTO 6408 (substantially modified by ATC/PTO 10256), but the GIMT Project has been shut down.

This amount of Seep ERCs used to offset ROC emissions at specific projects is:

- Exxon's Santa Ynez Project is 3.75 tons/quarter
- PXP's Pt. Arguello Project is 1.15 tons/year

The exact amount of ROC emission reductions captured by the Seep Containment Device is checked quarterly. Venoco submits reports to the APCD on seep gas collection volume (MMscfd) and its ROC content.

NOTE: In 1979, ARCO had submitted a detailed proposal to the Santa Barbara County, the State Coastal Land Commission and the APCD to capture ocean floor seep gases and obtain ROC emission reduction credits for the same. The proposal contained the results of a Santa Barbara Channel seep emissions and impact study. After some revisions of terms, all concerned parties including the APCD and ARCO signed a Memorandum of Agreement (MOA) in July 1981 agreeing to the final ARCO proposal. This MOA was also approved by the California ARB. It allowed the Seep Containment Device operator varying ERCs, based on the amount of gas collected by the device and its actual VOC species composition. In June 1986, the APCD modified PTO 4441 to allow ARCO to modify the Seep Containment Device (re-alignment of the sub-sea structure) and capture more of the seep gases (since the design capacity, i.e., 8 MMscfd of gas, of the original equipment was not exceeded, an ATC was not required).

Based on the MOA described above, the Seep Containment Device cannot provide ERC's to any source other than those named above. Also, based on the existing MOA, the sources listed above cannot obtain any more ERCs from this facility than the amounts listed therein.

8.0 Lead Agency Permit Consistency

To the best of the APCD's knowledge, no other governmental agency's permit requires air quality mitigation from the Seep Containment Device facility emissions.

The APCD is the lead agency for this project. Pursuant to Appendix "A" of the *Environmental Review Guidelines for the Santa Barbara County Air Pollution Control District*, operating permits are exempt from CEQA review. A description of the Seep Containment Device's operation is provided in Section 2 of this permit.

9.0 Permit Conditions

This section lists the applicable permit conditions for the Seep Containment Device. Section A lists the standard administrative conditions. Section B lists ‘generic’ permit conditions, including emission standards, for all equipment in this permit. Section C lists conditions affecting specific equipment. Section D lists non-federally enforceable (i.e., APCD only) permit conditions. Conditions listed in Sections A, B and C are enforceable by the USEPA, the APCD, the State of California and the public. Conditions listed in Section D are enforceable only by the APCD and the State of California. Where any reference contained in Sections 9.A, 9.B or 9.C refers to any other part of this permit, that part of the permit referred to is federally enforceable. In case of a discrepancy between the wording of a condition and the applicable federal or APCD rule(s), the wording of the rule shall control.

For the purposes of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this permit, nothing in the permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed.

9.A Standard Administrative Conditions

The following federally enforceable administrative permit conditions apply to the Seep Containment Device:

A.1 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:
 - (i) compliance with the permit, or
 - (ii) whether or not cause exists to modify, revoke and reissue, or terminate a permit or for an enforcement action.
- (g) In the event that any condition herein is determined to be in conflict with any other condition contained herein, then, if principles of law do not provide to the contrary, the condition most protective of air quality and public health and safety shall prevail to the extent feasible.

[Re: 40 CFR Part 70.6.(a)(6), APCD Rules 1303.D.1]

A.2 **Emergency Provisions.** The permittee shall comply with the requirements of the APCD, Rule 505 (Upset/Breakdown rule) and/or APCD 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 APCD, 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), APCD Rule 1303.F]

A.3 **Compliance Plan.**

(a) The permittee shall comply with all federally enforceable requirements that become applicable during the permit term in a timely manner.

(b) For all applicable equipment, the permittee shall implement and comply with any specific compliance plan required under any federally enforceable rules or standards.

[Re: APCD Rule 1302.D.2]

A.4 **Right of Entry.** The Regional Administrator of USEPA, the Control Officer, or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises where a Part 70 Source is located or where records must be kept:

(a) To inspect 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: APCD Rule 1303.D.2]

A.5 **Severability.** The provisions of this Permit to Operate are severable and if any provision of this Permit to Operate is held invalid, the remainder of this Permit to Operate shall not be affected thereby. [Re: APCD Rules 103 and 1303.D.1]

A.6 **Permit Life.** The Part 70 permit shall become invalid three years from the date of issuance unless a timely and complete renewal application is submitted to the APCD. 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 APCD rules.

The permittee shall submit an application for renewal of the Part 70 permit not later than 6 months before the date of the permit expiration. Upon submittal of a timely and complete renewal application, the Part 70 permit shall remain in effect until the Control Officer issues or denies the renewal application. [Re: APCD Rule 1304.D.1]

A.7 **Payment of Fees.** The permittee shall reimburse the APCD 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 APCD and the USEPA pursuant to section 502(a) of the Clean Air Act. [Re: APCD Rules 1303.D.1 and 1304.D.11, 40 CFR 70.6(a)(7)]

- A.8 **Deviation from Permit Requirements.** The permittee shall submit a written report to the APCD documenting each and every deviation from the federally enforceable requirements of this permit or any applicable federal requirements within 7 days after discovery of the violation, but not later than 180 days after the date of occurrence. The report shall clearly document 1) the probable cause and extent of the deviation, 2) equipment involved, 3) the quantity of excess pollutant emissions, if any, and 4) actions taken to correct the deviation. The requirements of this condition shall not apply to deviations reported to APCD in accordance with Rule 505. *Breakdown Conditions*, or Rule 1303.F *Emergency Provisions*. [APCD Rule 1303.D.1, 40 CFR 70.6(a) (3)]
- A.9 **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 APCD forms and shall identify each applicable requirement/condition of the permit, the compliance status with each requirement/condition, the monitoring methods used to determine compliance, whether the compliance was continuous or intermittent, and include detailed information on the occurrence and correction of any deviations (excluding emergency upsets) from permit requirement. The reporting periods shall be each half of the calendar year, e.g., January through June for the first half of the year. These reports shall be submitted by September 1 and March 1, 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: APCD Rules 1303.D.1, 1302.D.3, 1303.2.c]
- A.10 **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 APCD-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.11 **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;
- The records, 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 APCD upon request.
[Re: APCD Rule 1303.D.1.f, 40 CFR 70.6(a)(3)(ii)(A)]
- A.12 **Conditions for Permit Reopening.** The permit shall be reopened and revised for cause under any of the following circumstances:

- (a) Additional Requirements: If additional applicable requirements (e.g., NSPS or MACT) become applicable to the source which has an unexpired permit term of three (3) or more years, the permit shall be reopened. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. However, no such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended. All such re-openings shall be initiated only after a 30 day notice of intent to reopen the permit has been provided to the permittee, except that a shorter notice may be given in case of an emergency.
- (b) Inaccurate Permit Provisions: If the APCD 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 APCD or the USEPA determines that the permit must be revised or revoked to assure compliance with any applicable requirement including a federally enforceable requirement, the permit shall be reopened. Such re-openings shall be made as soon as practicable.

Administrative procedures to reopen a permit shall follow the same procedures as apply to initial permit issuance. Re-openings shall affect only those parts of the permit for which cause to reopen exists. If the permit is reopened, and revised, it will be reissued with the expiration date that was listed in the permit before the re-opening. [*Re: 40 CFR 70.7(f), 40 CFR 70.6(a)*]

9.B Generic Conditions

The generic conditions listed below apply to all emission units, regardless of their category or emission rates. These conditions are federally enforceable. Compliance with these requirements is discussed in Section 3. In case of a discrepancy between the wording of a condition and the applicable federal or APCD rule(s), the wording of the rule shall control.

- B.1 **Circumvention (Rule 301)**. A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26 (Air Resources) of the Health and Safety Code of the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California, or of APCD Rule 303. [*Re: APCD Rule 301*]
- B.2 **Nuisance (Rule 303)**. No pollutant emissions from any source at Venoco shall create nuisance conditions. No operations shall endanger health, safety or comfort, nor shall they damage any property or business. [*Re: APCD Rule 303*]
- B.3 **Odorous Organic Sulfides (Rule 310)**. Venoco shall not discharge into atmosphere H₂S and organic sulfides that result in a ground level impact beyond the Venoco property boundary in excess of 0.06 ppmv averaged over 3 minutes or 0.03 ppmv averaged over 1 hour. [*Re: APCD Rule 310*]

- B.4 **Organic Solvents (Rule 317).** Venoco shall comply with the emission standards listed in Section B of Rule 317. Compliance with this condition shall be based on Venoco’s compliance with the Solvent Usage condition of this permit. [Re: APCD Rule 317]
- B.5 **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 Venoco’s compliance with the Solvent Usage condition of this permit and facility inspections. [Re: APCD Rule 322]
- B.6 **Architectural Coatings (Rule 323).** Venoco shall comply with the emission standards listed in Section D of Rule 323 as well as the Administrative requirements listed in Section F of Rule 323. Compliance with this condition shall be based on Venoco’s compliance with the Solvent Usage condition of this permit and facility inspections. [Re: APCD Rules 323, 317, 322, 324]
- B.7 **Disposal and Evaporation of Solvents (Rule 324).** Venoco 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 Venoco’s compliance with the Solvent Usage condition of this permit and facility inspections. [Re: APCD Rule 324]
- B.8 **CARB-Registered Portable Equipment.** State registered portable equipment shall comply with State registration requirements. A copy of the State registration shall be readily available whenever the equipment is at the facility. [Re: APCD Rule 202]

9.C Equipment Specific Conditions

This section includes equipment-specific federally enforceable conditions, including emissions and operations limits, monitoring, recordkeeping and reporting requirements. This section may also contain other non-generic conditions.

- C.1 **Seep Containment Device.** The following equipment is included in this emissions category:

APCD ID No.	Venoco Equipment ID No.	Equipment Name
106455	Pyramid ID #1	Pyramid Structure; ID “1”; 100-feet at the base and 20-feet high; Capacity: 498,700 gallons
106457	Pyramid ID #2	Pyramid Structure; ID “2”; 100-feet at the base and 20-feet high; Capacity: 498,700 gallons
106458	Liquid Trap ID #1	HC Liquid Trap; ID “1”; 5-feet diameter by 30-feet long, attached to Pyramid Structure “1”; Capacity: 8,807 gallons
106459	Liquid Trap ID #2	HC Liquid Trap; ID “2”; 5-feet diameter by 30-feet long, attached to Pyramid Structure “2”; Capacity: 8,807 gallons
106460	None	Seep Gas Pipeline (8” diameter) enclosing a 6” diameter pipe line to EOF
106461	None	Oil Transfer Hose (6-inch diameter);

- (a) Emission Limits: No federally enforceable emission limits exist for these equipment items.

- (b) **Operational Limits:** All process operations from the equipment listed in this section shall meet the requirements of APCD Rule 325, Sections D.4, and E. Further, Venoco shall direct all gases collected by the Seep Containment Device to the Ellwood Onshore Facility for processing. Compliance with these limits shall be assessed through compliance with the monitoring, recordkeeping and reporting conditions in this permit.
- (c) **Monitoring:** Venoco shall monitor the following:
- (i) *Seep Gas Volume* – The volume of gas collected by the Seep Containment Device shall be metered using an APCD-approved flow meter. At a minimum, the gas flow meter shall be calibrated on an annual basis.
 - (ii) *Seep Gas Composition* – The composition of the Seep gas shall be analyzed by a third-party lab on a quarterly basis.
 - (iii) *Liquid Trap Inspection* – The liquid traps shall be visually inspected for leaks at least once every five years in accordance with Rule 325.H.
- (d) **Recordkeeping:** Venoco shall record:
- (i) *Seep Gas Volume* – The volume of Seep gas collected on a daily, monthly, quarterly, and annual basis.
 - (ii) *Seep Gas Composition* – The results of each quarterly Seep gas lab analysis and a copy of the lab analysis sheets and custody transfer form.
 - (iii) *ROC Mass Collected* – Venoco shall report the calculated mass of reactive organic compounds (ROCs) collected on a daily, monthly, quarterly, and annual basis.
 - (iv) *Oil Volumes Collected* – The volume of oil captured and removed from the liquid traps associated with each pyramid structure. Include the dates that the oil was removed and the methods of removal.
 - (v) *Liquid Trap Inspections* – The result of the most recent liquid trap inspection.
- (e) **Reporting:** On a semi-annual basis, a report detailing the previous six month’s activities shall be provided to the APCD. The report must list all data required by the *Compliance Verification Reports* condition of this permit. [Re: APCD Rules 325 and 1303, 40 CFR 70.6]

C.2. **Seep Containment Device Maintenance/ Marine Vessel Operations.** Venoco may operate marine vessels for seep containment device inspection and maintenance, or oil removal activities, as allowed by PTO 8234-R7. Within 21 days following seep containment device inspection or maintenance activities, Venoco shall submit a written report to the APCD that includes a summary of all maintenance or repair actions performed and the impact on seep flow rates, any ROV survey video obtained, and all data obtained on the seep containment structure integrity and gas collection efficiency .

[Re: APCD Rules 102, 201 and 801, PTO 4441-01]

C.3 **Solvent/Coating Use.** The following equipment is included in this emissions unit category:

APCD ID	No.	Name
107395		Solvents - Cleaning/Degreasing (<i>used in non-maintenance operations</i>)
107395		Surface Coating (<i>that also includes solvents as thinners</i>)

- (a) **Emission Limits:** The solvent emission limits outlined in APCD Rule 317.B are federally enforceable for the entire stationary source.
- (b) **Operational Limits:** Use of solvents for cleaning/degreasing and maintenance surface coating shall conform to the requirements of APCD Rules 317, 322, 323 and 324. Compliance with these rules shall be assessed through compliance with the monitoring, recordkeeping and reporting conditions in this permit and facility inspections.
 - (i) *Containers* - Vessels or containers used for storing materials containing organic solvents shall be kept closed unless adding to or removing material from the vessel or container.
 - (ii) *Materials* - All materials that have been soaked with cleanup solvents shall be stored, when not in use, in closed containers that are equipped with tight seals.
 - (iii) *Solvent Leaks* - Solvent leaks shall be minimized to the maximum extent feasible or the solvent shall be removed to a sealed container and the equipment taken out of service until repaired.
- (c) **Recordkeeping:** Venoco shall record in a log the following on a monthly basis for each solvent and coating used: amount used; the percentage of ROC by weight (as applied); the solvent density; the amount of solvent reclaimed for District-approved disposal; whether the solvent is photochemically reactive; and, the resulting emissions to the atmosphere in units of pounds per month and pounds per day. Product sheets (MSDS or equivalent) detailing the constituents of all solvents shall be maintained in a readily accessible location at the EOF.
- (d) **Reporting:** On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the APCD. The report must list all data required by the *Semi-Annual Compliance Verification Reports* condition of this permit.

[Re: APCD Rules 317, 322, 323, 324, 1301 and 1303, 40 CFR 70.6]

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

Annual Emissions Inventory questionnaire shall be included in the annual report or submitted electronically via the APCD website. The report shall include the following information:

(a) *Seep Containment Device*. The following records are required to be reported:

- (i) *Seep Gas Volume* – The volume of Seep gas gathering on a daily, monthly, quarterly, and annual basis.
- (ii) *Seep Gas Composition* – The results of each quarterly Seep gas lab analysis and a copy of the lab analysis sheets and custody transfer form.
- (iii) *ROC Mass Emissions Collected* – Venoco shall report the calculated volume and mass emissions of reactive organic compounds (ROCs) collected on a daily, monthly, quarterly, and annual basis.
- (iv) *Oil Volumes Collected* – The volume of oil captured and removed from the liquid traps associated with each pyramid structure. Include the dates that the oil was removed and the methods of removal.
- (v) *Seep Maintenance Activities*—The dates of each seep maintenance project.
- (vi) *Liquid Trap Inspection* – The date and results of the most recent liquid trap inspection.

(b) *Solvent Usage*. The following records are required to be reported:

- (i) Solvent Cleaning: On a monthly basis: the amount of solvent used; the percentage of ROC by weight (as applied); the solvent density; the amount of solvent reclaimed; whether the solvent is photochemically reactive; and, the resulting emissions of ROC and photochemically reactive solvents to the atmosphere in units of pounds per month.
- (ii) Surface Coating – Maintenance: On a monthly basis: the amount of solvent and coatings used; the percentage of ROC by weight (as applied); the solvent density; the amount of solvent reclaimed; whether the solvent is photochemically reactive; and, the resulting emissions of ROC and photochemically reactive solvents to the atmosphere in units of pounds per month.
- (iii) Information required by the *Solvent Reclamation Plan*, if any.

(c) *General Reporting Requirements*.

- (i) A copy of the Rule 202 De Minimis Log for the stationary source.
- (ii) Breakdowns and variances reported/obtained per Regulation V along with the excess emissions that accompanied each occurrence.
[Re: Rule 202, Rule 317, Rule 325, PTO 4441]

- C.5 **Abrasive Blasting Equipment.** All abrasive blasting activities performed on the Seep Containment Device shall comply with the requirements of the California Code of Regulations, Title 17, Sub-Chapter 6, Sections 92000 through 92530. [Re: APCD Rule 303, CCR Title 17]
- C.6 **Emergency Episode Plan.** During emergency episodes, Venoco shall implement the approved Emergency Episode Plan for the Venoco Ellwood Stationary Source. The APCD may request updates of the plan by written notification. [Re: APCD Rule 603 and 1303]
- C.7 **Documents Incorporated by Reference.** The documents listed below, including any APCD-approved updates thereof, are incorporated herein and shall have the full force and effect of a permit condition for this operating permit. These documents shall be implemented for the life of the Seep Containment Device.
- (i) *Emergency Episode Plan (7/94).*
[Re: PTO 4441]

9.D **APCD-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 APCD and the State of California. These conditions are issued pursuant to APCD Rule 206 (*Conditional Approval of Authority to Construct or Permit to Operate*), which states that the Control Officer may issue an operating permit subject to specified conditions. Permit conditions have been determined as being necessary for this permit to ensure that operation of the Seep Containment Device complies with all applicable local and state air quality rules, regulations and laws. Failure to comply with any condition specified pursuant to the provisions of Rule 206 shall be a violation of that rule, this permit, as well as any applicable section of the California Health & Safety Code and any applicable requirement.

- D.1 **Condition Acceptance.** Acceptance of this operating permit by Venoco shall be considered as acceptance of all terms, conditions, and limits of this permit.
- D.2 **Grounds for Revocation.** Failure to abide by and faithfully comply with this permit shall constitute grounds for revocation pursuant to California Health & Safety Code Section 42307 *et seq.*
- D.3 **Defense of Permit.** Venoco agrees, as a condition of the issuance and use of this PTO, to defend at its sole expense any action brought against the APCD because of the issuance of this permit. Venoco shall reimburse the APCD for any and all costs including, but not limited to, court costs and attorney's fees that the APCD may be required by a court to pay as a result of such action. The APCD may, at its sole discretion, participate in the defense of any such action, but such participation shall not relieve Venoco of its obligation under this condition. The APCD shall bear its own expenses for its participation in the action.
- D.4 **Reimbursement of Costs.** All reasonable expenses, as defined in APCD Rule 210, incurred by the APCD, APCD contractors, and legal counsel for all activities related to the implementation of Regulation XIII (*Part 70 Operating Permits*) that follow the issuance of this PTO permit, including but not limited to permit condition implementation, compliance verification and emergency response, directly and necessarily related to enforcement of the permit shall be reimbursed by Venoco as required by Rule 210.

- D.5 **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the District or its agents, Venoco shall make such records available or provide access to such facilities upon notice from the District. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A.
- D.6 **Compliance.** Nothing contained within this permit shall be construed to allow the violation of any local, State or Federal rule, regulation, ambient air quality standard or air quality increment.
- D.7 **Consistency with Analysis.** Operation under this permit shall be conducted consistent with all data, specifications, and assumptions included with the application and supplements thereof (as documented in the APCD's project file) and the APCD's analyses under which this permit is issued.
- D.8 **Consistency with Federal, State, and Local Permits.** Nothing in this permit shall relax any air pollution control requirement imposed on the Seep Containment Device by the State of California or the California Coastal Commission in any consistency determination for the Project with the California Coastal Act, or by any other governmental agency.
- D.9 **Emission Reduction Credits.** All ERCs generated by this facility must meet the USEPA's ERC guidelines (51 FR 43814, dated 4 December 1986) of being permanent, surplus, quantifiable, and enforceable. The ERCs created by this permit are for use as offsets by Plains Exploration and Production to meet the requirements under PTO 5704 for the Point Arguello Project and by ExxonMobil to meet the requirements under PTO 5651 for the Santa Ynez Unit Project. The failure of Venoco to collect and process seep gasses in sufficient quantities to satisfy the ROC emission reduction obligations (as specified in section 7.4 of this permit) shall be considered a violation of this permit.
- Emission reduction measures implemented to create the required emission reductions shall be in place and maintained, as detailed in the Memorandum of Agreement between ARCO and the APCD, while in use at each project. This permit does not authorize the dedication of these emission reductions to any other project without prior approval of the APCD. The APCD will assess any such proposal in accordance with Rules and Regulations in effect at the time an application is deemed complete or later date if provided by APCD Rules.
- D.10 **Equipment Maintenance.** The seep containment device structure and all piping, valves and fittings shall be inspected annually for corrosion and/or leaks and maintained in leak free condition. All equipment must be properly maintained and kept in good condition at all times to ensure all gas captured by the seep containment gas devices are sent via pipeline to the EOF for processing.
- D.11 **ERC Data Reports.** A written report shall be provided to the APCD within thirty (30) days after the close of each quarter, relative to the previous quarter's activities. The report shall contain the amount of reactive hydrocarbon gas collected on a daily basis and the monthly average in tons/day.³

³ This condition is based on the 7/81 MOA between Venoco's predecessor ARCO and the APCD
FINAL Part 70/APCD Permit to Operate No. 4441-R4
Santa Barbara County APCD

- D.12 **Breakdown Reports.** Venoco shall implement reporting procedures for breakdowns. A verbal report shall be given as soon as reasonably possible, after its detection, not later than four (4) hours after the start of the next regular working day. Written reports shall be given within one (1) week after a breakdown occurrence. Such reports shall include the company's name, date, location, name and telephone number of reporter, time reported, time of equipment failure or occurrence, time corrected or expected time of correction, equipment identification, reason for failure, and monitor or alarm indications.
- D.13 **Process Monitoring Systems - Operation and Maintenance.** All facility process monitoring devices listed in Section 4.8.2 shall be properly operated and maintained according to manufacturer recommended specifications.
- D.14 **Document Incorporated by Reference.** The documents listed below, including any updates thereof, are incorporated herein and shall have the full force and effect of a permit condition for this operating permit:
- (a) USEPA: *Emission Reduction Credit Policy Guidelines*, Federal Register, 51 FR 43814, dated 4 December 1986.
 - (b) Process Monitor Calibration and Maintenance Plan for Venoco EOF and any subsequent APCD-approved updates.
- D.15 **Permitted Equipment.** Only those equipment items listed in Attachment 10.4 are covered by the requirements of this permit and APCD Rule 201.
- D.16 **Mass Emission Limitations.** The Seep Containment Device is not permitted to emit any air contaminants as defined by APCD Rule 102.

AIR POLLUTION CONTROL OFFICER

Date

NOTES:

- (a) Permit Reevaluation Due Date: December, 2011
- (b) Part 70 Operating Permit Expiration Date: December, 2011
- (c) This Part 70 permit superseded all previous "APCD-only" permits to operate for this facility, namely, PTO 4441. Any previous ATC's issued for this facility remain intact and in full force.

RECOMMENDATION

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

AQ Engineer

Date

Engineering Supervisor

Date

10.0 Attachments

10.1 *NEI Calculations*

10.2 *Fee Calculations*

10.3 *IDS Database Emission Tables*

10.4 *Equipment List*

10.5 *Exempt / Part 70 Insignificant Equipment List*

10.6 *Venoco Comments on the Draft Permit and APCD Responses*

10.1 NEI CALCULATIONS

The NEI calculations for the Seep Containment Device and the *Venoco – Ellwood* Stationary Source are presented in Table 10.1-1.

Table 10.1-1
 Venoco Seep Containment Device: Part 70/APCD PTO 4441-R4
 NEI-90

Facility No.	Effective Permit	Effective Date	NOx		ROC		CO		SOx		PM		PM10	
			lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
0028	Reeval 7904-R8	current	48.63	6.26	36.77	5.73	223.39	70.75	35.03	2.89	16.85	2.29	16.85	2.29
3105	PTO 8234-R7	current	6.28	1.11	10.93	1.93	28.29	4.71	2.34	1.06	1.38	0.23	1.38	0.23
1065	PT-70/Reeval 4441-R4	current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3035	PT-70/Reeval 8103-R7	current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Totals =			54.91	7.37	47.70	7.66	251.68	75.46	37.37	3.95	18.23	2.52	18.23	2.52

- Notes:
- (1) Facility NEI from IDS.
 - (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.

10.2 FEE CALCULATIONS

All permit fees for the reevaluation of the Seep Containment Device are based on the fee schedules of Rule 210. The APCD has calculated these fees based on the CPI adjusted Rule 210 fee schedules and on current equipment lists.

All work performed with respect to implementing the requirements of the Part 70 Operating Permit program are assessed on a cost reimbursement basis pursuant to APCD Rule 210.

FEE STATEMENT

PT-70/Reeval No. 04441 - R4

FID: 01065 Seep Containment Device / SSID: 01063



Device Fee

Device No.	Device Name	Fee Schedule	Qty of Fee Units	Fee per Unit	Fee Units	Max or Min. Fee Apply?	Number of Same Devices	Pro Rate Factor	Device Fee	Penalty Fee?	Fee Credit	Total Fee per Device
106455	Pyramid Structure	A1.a	1.000	58.66	Per equipment	No	1	1.000	58.66	0.00	0.00	58.66
106457	Pyramid Structure	A1.a	1.000	58.66	Per equipment	No	1	1.000	58.66	0.00	0.00	58.66
106458	HC Liquid Trap	A6	1.000	3.36	Per 1000 gallons	Min	1	1.000	58.28	0.00	0.00	58.28
106459	HC Liquid Trap	A6	1.000	3.36	Per 1000 gallons	Min	1	1.000	58.28	0.00	0.00	58.28
Device Fee Sub-Totals =									\$233.88	\$0.00	\$0.00	
Device Fee Total =												\$233.88

Permit Fee

Minimum Reeval Fee

365.00

Fee Statement Grand Total = \$365

Notes:

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

10.3 IDS DATABASE EMISSION TABLES

Table 1
Permitted Potential to Emit (PPTE)

	NO _x	ROC	CO	SO _x	PM	PM ₁₀
Part 70/PTO 4441-R4						
lb/day	0.00	0.00	0.00	0.00	0.00	0.00
tons/year	0.00	0.00	0.00	0.00	0.00	0.00

Table 2
Facility Potential to Emit (FPTE)

	NO _x	ROC	CO	SO _x	TSP	PM ₁₀
Part 70/PTO 4441-R4						
lb/day	0.00	0.00	0.00	0.00	0.00	0.00
tons/year	0.00	0.00	0.00	0.00	0.00	0.00

Table 3
Federal Potential to Emit (PT 70 FPTE)

	NO _x	ROC	CO	SO _x	PM	PM ₁₀
Part 70/PTO 4441-R4						
lb/day	0.00	0.00	0.00	0.00	0.00	0.00
tons/year	0.00	0.00	0.00	0.00	0.00	0.00

Table 4
Facility Net Emission Increase Since 1990 (FNEI-90)

	NO _x	ROC	CO	SO _x	PM	PM ₁₀
Part 70/PTO 4441-R4						
lb/day	0.00	0.00	0.00	0.00	0.00	0.00
tons/year	0.00	0.00	0.00	0.00	0.00	0.00

Table 5
Facility Exempt Emissions (FXMT)

	NO _x	ROC	CO	SO _x	PM	PM ₁₀
Part 70/PTO 4441-R4						
lb/day	0.00	0.00	0.00	0.00	0.00	0.00
tons/year	0.00	0.00	0.00	0.00	0.00	0.00

10.4 EQUIPMENT LIST:

1.1 Pyramid Structure

Device Number: 106455 Operator ID Number: ID '1'
Number of Devices: 1
Manufacturer: Make: Model: Serial No:
Parameter Size: 498700.00 Gallons
Device Description: 100' at the base and 20' high. Capacity = 498,700 gallons.

1.2 Pyramid Structure

Device Number: 106457 Operator ID Number: ID '2'
Number of Devices: 1
Manufacturer: Make: Model: Serial No:
Parameter Size: 498700.00 Gallons
Device Description: 100' at the base, and 20' high; Capacity = 498,700 gallons.

1.3 HC Liquid Trap

Device Number: 106458 Operator ID Number: ID # 1
Number of Devices: 1
Manufacturer: Make: Model: Serial No:
Parameter Size: 8807.00 Gallons
Device Description: 5' dia. by 30' long, attached to Pyramid # 1; Capacity = 8807 gallons

1.4 HC Liquid Trap

Device Number: 106459 Operator ID Number: ID # 2
Number of Devices: 1
Manufacturer: Make: Model: Serial No:
Parameter Size: 8807.00 Gallons
Device Description: 5' dia. by 30' long, attached to Pyramid # 2; Capacity = 8807 gallons

1.5 Seep Gas Pipeline

Device Number: 106460 Operator ID Number: None
Number of Devices: 1
Manufacturer: Make: Model: Serial No:
Parameter Size:
Device Description: 8" diameter Seep gas pipeline to EOF. This pipeline delivers gas from the Seep Containment Device to the Ellwood Onshore Facility where the gas is metered.

1.6 Oil Transfer Hose

Device Number: 106461 Operator ID Number: None
Number of Devices: 1
Manufacturer: Make: Model: Serial No:
Parameter Size:
Device Description: 6" diameter oil hose for transferring oil in liquid trap. This hose is used periodically to transfer oil to a marine vessel. When not in use, the hose lies on the ocean floor.

1.7 Solvents and Surface Coating

Device Number: 107395 Operator ID Number: None

Number of Devices: 1

Manufacturer: Make: Model: Serial No:

Parameter Size:

Device Description:

10.5 EXEMPT / PART 70 INSIGNIFICANT EQUIPMENT LIST

There are no exempt or Part 70 Insignificant Equipment associated with the Seep Containment Device.

10.6 Venoco Comments on the Draft Permit and APCD Responses

The permit was subject to public review and comment. The comment period started on XXXXX and ended on XXXXX.

VENOCO COMMENTS ON 'DRAFT' PART 70/APCD PTO NO. 4441-R4; AND APCD RESPONSES

No.	Page/ Section	Venoco Citation and Issue	Venoco Proposed Resolution	APCD Response
1.				