



# County of Santa Barbara Planning and Development

Dianne Meester, Assistant Director

March 31, 2006

Mr. Stephen Greig  
Venoco, Inc.  
5464 Carpinteria Avenue, Suite J  
Carpinteria, CA 93101

Re: Development Plan Application for  
"Ellwood Oil Pipeline Installation and Field Improvements"

Dear Mr. Greig:

The County received your revised application for the Ellwood Oil Pipeline Installation and Field Improvements project on March 1, 2006. The revised application included supplemental information in response to agency review and comments of the initial application submitted on August 1, 2005. We have reviewed your revised application and find your application complete with the following advisory comment and the technical comments included as Attachment A. Please note that as this project is subject to a Joint Review Panel to develop the Environmental Impact Report (EIR) under CEQA, all agencies must find their respective applications complete prior to initiation of the CEQA process.

### **Advisory Comment**

The uncertainty regarding the ability of the project as proposed to meet the odor abatement requirements of section 4.4.2 and permit condition of 9.C.2.b. of APCD PTO 7904-06 regarding the re-routing of the Lo-Cat exhaust air needs to be noted. The Lo-Cat oxidizer air has been linked to potential odors in the past, and the required odor abatement system is necessary to minimize the potential for odors. Please be advised that the information necessary to complete the analysis of the proposed system will be required to complete the EIR.

Please feel free to call me at (805) 568-2287 if you have any questions.

Mr. Stephen Greig  
March 31, 2006  
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Sincerely,



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DEAN DUSETTE  
PLANNER

Attachment: A.  
Technical Comments

Copy: Paul Mount, California State Lands Commission  
Dwight Sanders, California State Lands Commission  
Jeff Planck, California State Lands Commission  
Eric Gillies, California State Lands Commission  
Alison Dettmer, California Coastal Commission  
Ed Brannon, DOC Division of Oil, Gas and Geothermal Resources  
Peter Cantle, Air Pollution Control District  
Ken Curtis, City of Goleta  
Rob Mullane, City of Goleta

## **ATTACHMENT A: TECHNICAL COMMENTS**

### **Santa Barbara County Air Pollution Control District Comments**

#### General Comments: Construction/Demolition Activities

1) The construction and demolition activities were broken out as requested, however, it is not clear whether Line 96 and subsea power cable removal activities were included in the demolition tables (Tables E.3-18, E.3-15, and E.3-24).

Controlled emission factors (EPA Tier 1 or 2) were assumed for a large number of diesel construction engines, and emissions were calculated based on these factors. For example in table E.3-5, such factors were used for about 75% of the engines. There is no supporting information provided for the number of controlled engines, and unless Venoco has already executed a contract with a construction equipment supplier, it would be impossible to specify the mix of controlled and uncontrolled engines. Table E.3-24, shows the total construction emissions for NO<sub>x</sub> to be 18.27 tons. It is conceivable that if the actual fleet mix has significantly less EPA Tier 1 engines, then total NO<sub>x</sub> emissions could exceed 25 tons in 12 months. Exceeding 25 tons of NO<sub>x</sub> emissions in a 12 month period could trigger offsets per APCD Rule 202.F.3. Unless Venoco's proposed control assumptions can be enforced, further analysis is needed to assess reasonable worst-case annual construction emissions and impacts.

To compute emissions, Venoco replaced equipment load factors (in the original application) with gallons per hour fuel use assumptions from past construction projects. While this methodology is reasonable, the gallons data must be reviewed to be sure construction emission estimates are appropriate.

It does not appear that marine vessel (American Patriot, Tug Julie) transit emissions in California Coastal Waters adjacent to Santa Barbara County were included in Table E.3-17. In addition, the 60 hours/day assumption for boat main engines appears to be in error.

We note that for Pipeline Construction equipment, the hours per day and total hours have changed from the original application (Table E.3-4) to the revised application (Table E.3-5) without any explanation. It is unclear why these were changed.

2) Venoco has committed to make the required asbestos notification to the APCD for the demolition components of the project.

3) See comment 1) above. The APCD still has a concern that potentially significant air quality impacts could occur from construction activities if a reasonable worst-case analysis shows total construction emissions of NO<sub>x</sub> exceed 25 tons in any 12 month

period. In that case, offsets and an air quality impact assessment would be required per APCD Rule 202.F.3. Venoco has also responded that they acknowledge the EIR contractor will perform any required health risk assessment of construction activities. As a responsible agency, the APCD would rely on this analysis. We note that Venoco has not provided a maximum daily emissions scenario for an impact analysis, and this will have to be developed to perform a risk assessment or impact modeling.

4) Venoco's response on purging and degassing of pipelines and tanks is acceptable, but the APCD notes we will have to determine if the existing Ellwood Onshore Facility degassing plan is adequate for this project.

### **1. Appendix A:**

(a) Section A.3.2 (p. A-71) – Venoco claims that they have a right of 20,000 barrels per day throughput by pipeline (per ordinance 2919). We note the current APCD permit restricts throughput to 13,000 barrels of oil per day.

(b) Section A.3.4 (p.A-89) – Venoco has committed to their current design capacity of 13 million SCFD inlet gas for the proposed project.

(c) Material Balance Sheet 3302-L-01- Venoco has clarified that the proposed project throughputs will be 13 MMSCF of gas per day and 20, 000 barrels oil per day.

### **2. Appendix B:**

(a) B.2.1.1 (B-80), Sulfur Separation System  
Venoco's response addressed our concerns.

(b) B.2.1.4.1 (B-86), Gas Compression – K-205/K-206  
Venoco asserts all new wells will be drilled through existing well slots, and thus any emissions increases would qualify as de-minimis. It does not appear Venoco quantified these emissions, and these should be further evaluated. We note that Venoco's current stationary source de-minimis ROC emissions total is 22.3 lb/day, so any de-minimis changes are limited to 1.7 lb/day before an APCD permit would be required.

(c) B.2.1.6 (B-93), LPG and NGL Storage  
Venoco's response addressed the concerns.

(d) B.2.1.7 (B-93), Power Generation

Venoco did not provide the detailed engineering analysis that we identified in our original comment (repeated below). Without a conclusive demonstration that the pre-existing Best Available Control Technology (BACT) requirement can be met, the proposed project configuration at the Ellwood Onshore Facility would have to be revised

to ensure destruction of the Lo-Cat air stream constituents, and to avoid a potential public nuisance. We believe Venoco should provide this demonstration before the land-use application is found complete.

Original comment:

Lo-Cat oxidizer air has been linked to potential odors in the past, and an odor abatement system is required in APCD permits to minimize the potential for odors. The current odor abatement configuration routes the Lo-Cat gas stream to the thermal oxidizers, and with a required minimum combustion temperature (1400 degrees F) to ensure destruction of residual organic compounds. As indicated in this section, the proposed project would re-route Lo Cat oxidizer air to the combustion air intake of the generator engines. Per section 4.4.2 and permit condition 9.C.2.b of APCD Permit to Operate number 7904-06, Best Available Control Technology operations that result in reactive organic compounds and benzene destruction efficiency of 98.5 percent is required. This minimum 98.5 percent destruction efficiency requirement would apply to the proposed project. The proposed re-routing would not be permissible unless a detailed engineering analysis was performed to demonstrate that required destruction efficiency could be achieved.

(e) B.2.1.7.1 (p. B-94), Engines

Venoco has recomputed generator emissions based on the rated at 2.4 megawatts (100 MMbtu/hr total). This addresses our concern about maximum potential emissions.

(f) B.2.1.7.3 (p. B-99), SCR System

Venoco has committed not to use anhydrous ammonia. The land use permit should be conditioned accordingly.

(g) B.2.1.7.4 (p.B-99)

Venoco has stated that the new 20 million BTU/hr oil heater is actually a waste heat exchanger, recovering heat from the power generators; thus no emissions from it will occur. However, it is still not clear how oil processing can continue (as Venoco indicates in their response) if the generator engines go down.

(h) B.2.1.8.1 (B-100), H-202 Removal

In Table E.4-2, Venoco has indicated that removal of heater H-202 has an actual emissions decrease ("D" term) based on actual emissions over the past three years. APCD records indicate the "D" term for H-202 is less than 0.005 ton/year of NOx or less than 0.027 lb/day of NOx.

(i) B.2.1.8.2 (B-100), H-201 and H-203 Modifications

In Table E.4-2, Venoco has indicated that removal of heaters H-201/203 have an actual emissions decrease ("D" term) based on actual emissions over the past three years. APCD records indicate the "D" term for H-201 is less than 0.05 ton/year of NOx, and for H-203 it is 0.04 ton/year of NOx.

### 3. Appendix E: (Air Quality)

(a) Section E.1 (p.E-2)

Venoco has revised Table E.1-2 based on its current Permit To Operate 7904-R7 for the Ellwood facility. The actual ROC emissions data (2002-2004) are still heavily skewed by inflated 2002 data for fugitive ROC emissions. Our updated information shows actual ROC emissions during 2002-2004 were between 70 and 75 tons per year.

(b) Section E.3 (p.E-5)

In their resubmittal, Venoco changed the basis for estimating construction emissions. They moved away from load factor assumptions, and instead assumed actual fuel use from two past pipeline construction projects in Southern California. They also applied emission factors in 'lb/1000 gallon' units. The APCD has not verified the fuel assumptions or the revised construction emission assumptions, and this should be done during the EIR process. Additional concerns are discussed in Item 1 above.

(c) Section E.4 (p.E-10) –Offset Concern

Venoco has stated that the final project design will not trigger offset requirements for project operations. This appears to be the case (see item (e) below for further information).

(d) Section E.4 (p.E-10)—Best Available Control Technology concern

Venoco responded that they intend to meet BACT requirements for all applicable pollutants. Based on the information in the application, it appears NO<sub>x</sub> will be subject to BACT. This requirement will be examined by the APCD thoroughly during the APCD permitting process.

(e) Table E.4-3 needs to be revised.

Venoco has revised table E.4-3 and added a new Table E.4-4. The APCD does not fully agree with the NEI calculations shown in Tables E.4-2 (continued on to E.4-3); however, our review indicates the stationary source net emissions increase (NEI) for NO<sub>x</sub> will not exceed the 55-pounds/day offset threshold, based on the information in the application.

(f) Air Toxics.

The Ellwood and Platform Holly facilities are currently considered “significant” air toxics facilities under the APCD’s AB-2588 Hot Spots program. A full and complete Health Risk Analysis (HRA) using APCD approved methodologies should be performed on the resulting project. The project should not be approved if it results in a significant cancer or non-cancer impact to the community.

Venoco states in their response that it is their understanding that a complete HRA will be performed by the EIR contractor. This is also the APCD’s understanding, and we can provide input as necessary.

(g) Platform Holly Generators.

Venoco has clarified that the three generator engines will not be removed as part of the proposed project, and that they will serve as back-up units. In addition, Venoco notes an existing diesel crane on Holly will be replaced in 2006 with a new crane with EPA tier 3 emission factors.

**Appendix F: (Public Safety)**

We reiterate that the modifications to the Ellwood Onshore Facility described in the proposed project will require incorporation into the facility Safety, Inspection, Maintenance and Quality Assurance Program. Additionally, the demolition of the Ellwood Marine Terminal and the identified equipment at the Ellwood Onshore Facility will require Venoco to develop and submit safety plans the Santa Barbara County Systems Safety Reliability and Review Committee for approval before commencing these demolition activities.

## **Santa Barbara County Building & Safety Comments**

1. In 2001 Full Field Development Application, Venoco proposed Sour Gas Sweetening on Platform Holly with refrigeration (LTS) to remove light hydrocarbons, Sulfinol –D Amine System to remove CO<sub>2</sub> and H<sub>2</sub>S and Glycol dehydration to meet the Sales Gas Specifications. The application also included extensive deck extensions on Platform Holly.

The Offshore sour gas sweetening was feasible in 2001 application. Why is it not feasible now? This alternate should be evaluated in detail during the EIR process.

2. The proposed leak detection system ( $\pm$  5% accuracy over 4 hours) does not appear to be the state-of-the-art leak detection system. Also, the intermediate block valves should be automatic shutdown valves in order to minimize spill volume in case of a leak or rupture.

Both the leak detection system and the block valve operation should be evaluated in the EIR

3. There is no discussion provided for the 11, 300 BPD produced water disposal.

4. Current (since last two years) production rates are much higher than the 4,100 bbls of oil per day, 11, 000 bbls of water per day and 4,700 MCFD of gas. These higher rates should be reflected in the evaluation.

5. For NGLs under Alternate #3, POPCO NGL loading rack is decommissioned and abandoned. NGLs from POPCO which contains Propane, Butane and heavier hydrocarbons ((C<sub>5</sub>+ liquids) are sent to ExxonMobil via the NGL interconnect pipeline. At ExxonMobil, the POPCO NGLs are commingled with ExxonMobil light ends and separated into Propane, Butane and NGLs. For ExxonMobil, NGL stream consist only of heavier hydrocarbons (C<sub>5</sub>+ liquids). ExxonMobil blends all of their Butanes and NGLs with the crude oil. Only Propane (LPG) is trucked out. There is no provision for trucking the NGLs from ExxonMobil or POPCO.

6. The material balance details provided on Drawing #s L-01 thru L-09 are for the preliminary design. A detail review will be conducted when the design process flow diagrams with material balance submitted for the approved design and configuration.

7. Table B-5 shows Urea in the chemical inventory list, Table A-7 does not. Please revise as necessary.

8. The attachment of the pipeline to Garey Bridge (Sisquoc Pipeline Project) was removed after the first rainy season within nine months of the operation after start-up. The attachment of the pipeline was removed due to the instability of the bridge due to

flooding. The Sisquoc Pipeline was commissioned in September 1992. The attachment to the Garey Bridge was removed in Summer of 1993 and buried in the riverbed.

The stability of the proposed pipeline attachment to the bridge should be evaluated for the flooding as well as seismic design.

9. A need to Smart Pig the pipeline (Section B.2.2.27.2) should be evaluated for an internal corrosion measure in the EIR or Final Development Plant Permits.