MINUTE ITEM

1

01/28/87
W 30026

CONSIDERATION OF ORAL AND WRITTEN COMMENTS ON
THE FINAL EIR FOR ARCO COAL OIL POINT PROJECT
SANTA BARBARA COUNTY

The following people testified before the Commission:

William Wallace, Chairman
Santa Barbara County Board of Supervisors

John Cohan, Senior Deputy County Counsel

Honorable Sheila Lodge
Mayor, City of Santa Barbara

Paul Aiello
Jordano, Inc.

Leo Jacobson
Isla Vista Resident

Daniel G. Aldrich, Jr.
Chancellor, UC, Santa Barbara

James Case
Professor, UC, Santa Barbara

Alice Alldredge
Professor, UC, Santa Barbara

Al Ebeling
Professor, UC, Santa Barbara

A. E. Nash
UCSB Academic Senate

Giles Gunn
Professor, UC, Santa Barbara

Mark Srednicki
Associate Professor, UC, Santa Barbara

Sally Holbrook
Professor, UC, Santa Barbara

David Gebhard
Professor, UC, Santa Barbara

Marty Blum, President
League of Women Voters

Richard Ranger
ARCO Oil and Gas Company

Mike Webb
Anthrosphere, Inc.

Marc Evans
UCSB Student

Paul Steinberg
UCSB Student

Paul Herzog
UCSB Student

Michael Herald
UCSB Student

Francine Allen
UCSB Student

Liahna Gordon
UCSB Student

Ken Brucker
UCSB Student

Emilio Pazzi
UCSB Student

Judy Dunhill
UCSB Student

Curtis Anderson
President, Isla Vista Association

Janice Keller
Get Oil Out, Inc.

Roger Lagerquist
Isla Vista Resident

Robert Sollen
Sierra Club

Nigel Buxton
Isla Vista Rental Committee

Alan Hur
Commercial Fisherman

Michael Stoker
Chamber of Commerce

Michael McDermott
Santa Barbara Resident

Martin Kellogg
Isla Vista Resident

Robert Klausner
Citizens Planning Association

Gary Fausone
UCSB Student

Kimberly Coy
Isla Vista Resident

Greg Thayer
Camp Bartlett Resident

Evan Oliver
Santa Barbara Resident

Joan Michelsen
UCSB Student

Sonja Hatch
UCSB Student

Deborah Brown
UCSB Student

Marc McGinnis
General Counsel, Justice Department

Don Barthelmess
Operations Supervisor
International Underwater Contractors

Lee Dyer
UCSB Student

Larry Davidson
UCSB Student

George Obern
President, Hope Ranch
Park Homes Association

Michael Boyd
Isla Vista Recreation
and Park District

Dev Urat
Energy Division, County of Santa Barbara

Mark Walker
UCSB Student

Janet Franklin
UCSB Student

M. V. Scherb
Safety Consultant

Robert Vatter
Santa Barbara County Fir Department

Yasmin Rodriguez
UCSB Student

Hal Kopeikin
Resident

Vivian Obern
Executive Secretary
Santa Barbara County Trails Association

Michael Phinney
Isla Vista Resident

Sean Durkin
Isla Vista Resident

Sue Higman
Isla Vista Resident

Upon motion made by Chairman Davis, and unanimously approved, the Commission voted to consider certification of the Environmental Impact Report within the first ten days in March in Santa Barbara.

1/19/87

Attachment: Staff Report

STATE OF CALIFORNIA
STATE LANDS COMMISSION
GRAY DAVIS, Controller
LEO T. McCARTHY, Lieutenant Governor
JESSE R. HUFF, Director of Finance

GEORGE DEUKMEJIAN, Governor
EXECUTIVE OFFICE
1807 - 13th Street
Sacramento, California 95814
CLAIRE T. DEDRICK
Executive Officer

January 19, 1987

TO: MEMBERS OF THE CALIFORNIA STATE LANDS COMMISSION

SUBJECT: Coal Oil Point Project Summary and Issue Responses

The attached materials have been prepared by the Commission staff as a means of assisting the Commissioners in better understanding the critical issues which have been raised by local government officials, the University of California, Santa Barbara, and the public relating to ARCO's oil development at Coal Oil Point in the Santa Barbara Channel.

A majority of the material deals specifically with issues and questions raised during the Commission's public hearing in Santa Barbara on January 13, 1987.

The information in this package is divided into three sections. Section 1 contains a summary of various elements contained in the finalizing addendum to the project EIR/EIS which was released on January 13, 1987.

The second section contains a project summary as proposed by the applicant, including ARCO's various alternatives, as well as alternatives proposed by the County of Santa Barbara and the consultant's environmentally preferred alternative.

The third section of the material covers ten specific issues which were identified during the Commission's public hearing on January 13, 1987. Each issue is fully defined or explained in terms of its relationship to the Coal Oil Point project. This explanation is followed by a summary of the concerns voiced during the hearing, followed by a statement of the recommended mitigation measures taken from the final

SIR/EIS and any additional State Lands Commission staff comments which were felt to be useful to the Commissioners in further understanding how a particular concern might ultimately be resolved.

According to the Commission's direction, this material does not contain State Lands Commission staff recommendations on the Coal Oil Point project. These recommendations will be included in a memorandum to Commissioners which is due on February 9, 1987 and will also include responses to new issues raised during the Commission's public hearing in Santa Barbara on January 28, 1987.

CLAIRE T. DEDRICK
Executive Officer

CALENDAR PAGE 214
MINUTE PAGE

I. FINALIZING ADDENDUM CONTENT SUMMARY

The finalizing addendum to the Coal Oil Point EIR/EIS which was released on January 13, 1987, together with the Draft EIR/EIS, constitutes the Final EIR/EIS (EIR/EIS) for the proposed project.

The addendum to the Draft EIR/EIS serves four primary purposes. First, it provides a formal record of the written comments and public hearing testimony concerning the Draft which was received during the public review phase of the environmental process. Second, the addendum offers responses to the comments which were received during this review process. Next the addendum includes any changes to the Draft EIR/EIS which were necessary as a result of the review process and further analysis of the project by the consultant. Finally, the addendum includes an updated analysis of the various project components wherever necessary, due to changes in the regulatory environment. The addendum also contains the consultant's environmentally preferred alternative for the project.

Volume I contains three sections. Section 1 provides a reader's guide to the finalizing addendum as well as documentation of the review process of the Draft EIR/EIS. It includes a fully revised executive summary and impact summary tables reflecting the various comments on the Draft EIR/EIS as well as the changes necessitated by the response to comments.

Section 2 contains supplemental information on the potential impacts if Exxon's Santa Ynez Unit processes oil offshore in the OS&T rather than in Las Flores Canyon. There is also a section summarizing the identified impacts of the Coal Oil Point Project on the community of Isla Vista.

Section 3 is a supplemental study of air quality impacts if Exxon processes oil offshore. This material was prepared to document conclusions concerning Exxon's changed project discussed in Section 2.

Volume II (Section 4) of the document is a record of comments to the Draft EIR/EIS and the responses to these comments. These comments and responses have been divided into nine sections by agency type, organization, individuals, and public hearing comments for the purpose of providing an organized response to all comments. Each section first provides a record of comments to the Draft EIR/EIS that are code numbered by agency type. Responses to each comment are provided in the back of each subsection.

CALENDAR PAGE
MINUTE PAGE 215

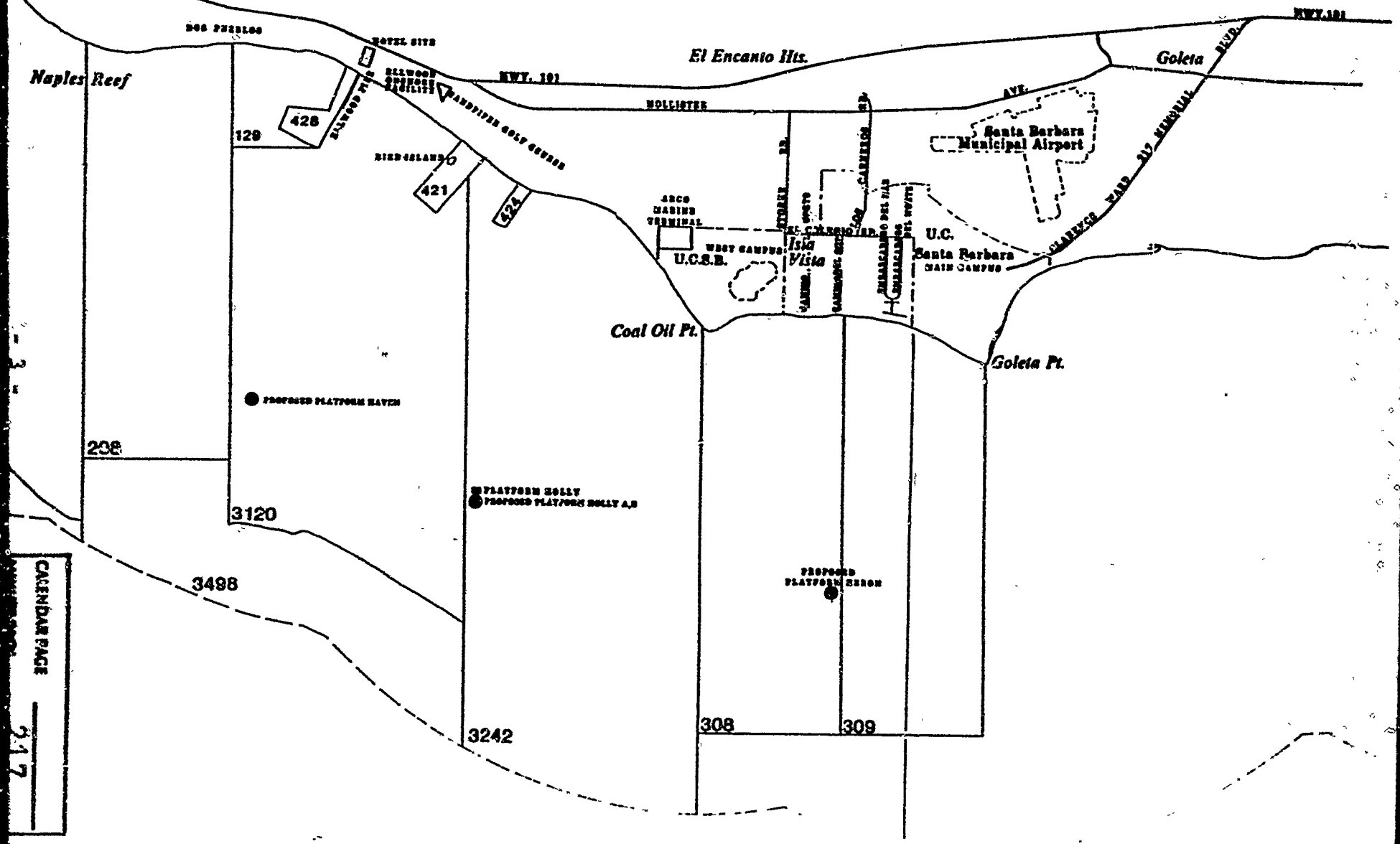
Volume III contains the final three sections of the report. Section 5 provides corrected pages to the Draft EIR/EIS. Section 6 contains corrected pages for the Technical Appendices. Changes in the text were noted through the crossing out of verbiage to be deleted and the underlining of all added text. Section 7 contains two supplemental reviews prepared in response to comments submitted on the Draft EIR/EIS.

CALENDAR PAGE
MINUTE PAGE 216

ARCO C AL OIL POINT PROJECT

STATE LANDS COMMISSION

1/16/87



CALENDAR PAGE

217

II. COAL OIL POINT DEVELOPMENT DESCRIPTION OF APPLICANT'S PROJECT AND OTHER ALTERNATIVES

The Draft EIR/EIS analyzes the "No Project" alternative, the project as proposed by ARCO, seven alternatives to various aspects of the project as proposed by ARCO and over 250 possible permutations of the project. The project as proposed by ARCO and the seven related alternatives are described below.

PROJECT PROPOSED BY APPLICANT

ARCO proposes to develop a new offshore oil and gas discovery site adjacent to the Santa Barbara coast and the University of California, Santa Barbara and the unincorporated community of Isla Vista. The development involves State oil and gas leases PRC 208, 308, 309, 3120 and 3242 which were issued by the Commission in 1946, 1947, 1964 and 1965.

The applicant proposes either to commingle or segregate the produced oil for processing at Ellwood. Although ARCO favors commingling of its own leases, they have stated they would oppose commingling of its oil with oil from other lessees. Each of these options provides for free water knockout of the oil offshore on each of the platforms and dehydration of the wet oil emulsion to pipeline quality onshore at the existing Ellwood facility. Under the segregated option for each of the five (5) leases, oil production would be segregated on the platforms and processed onshore in separate processing trains. This option as proposed by the applicant would use 5 new pipelines in addition to the existing pipeline for transport of the oil emulsion onshore. The use of fewer new pipelines is feasible. The commingled option as proposed by the applicant would use 2 new pipelines.

The applicant proposes to use three double platform complexes. The double platform complexes are composed of a drilling platform and a production platform connected by a bridge. Each platform component would measure 180 feet by 120 feet and have two (2) decks. The lowest deck would be 50 feet above the water and the top deck would be 25 feet above the lower deck. The drilling derrick mast height would be 250 feet above the water level. The applicant's proposal provides for free water knockout of the oil on the production component of each complex.

The applicant proposes to remove its existing gas processing operation from Ellwood and to process all the sweet and sour gas at a new gas processing facility to be constructed at Las Flores Canyon.

CALENDAR PAGE
MINUTE PAGE 218

At peak production the three platform complexes proposed by the applicant would produce up to 80,000 barrels of oil per day, up to 60 million cubic feet of associated sour gas per day and up to 90 million cubic feet of sweet gas per day.

ALTERNATIVES PROPOSED BY APPLICANT AND EXAMINED BY THE EIR/EIS

At the request of the Commission's staff and Santa Barbara County the applicant submitted engineering designs for seven alternatives to their proposed project. Under all the alternatives described below, the estimated peak production and value of products is the same as for the applicant's proposed project. Under any alternatives which would result in processing at a facility other than Ellwood, the applicant would maintain their existing gas processing facility at Ellwood.

1. Single Platforms

Under this alternative ARCO would construct three single platforms each measuring 180 feet by 180 feet. Each platform would have three decks with the first deck located 50 feet above the water line and the top deck located 60 feet above the lower deck. The drilling derrick mast height would be 295 feet above the water level.

This alternative provides for free water knockout of the oil on each of the platforms and dehydration of the wet oil emulsion to pipeline sales quality onshore at the existing Ellwood facility. The applicant proposes to use 2 new pipelines to bring the oil emulsion onshore.

2. Total Offshore Oil Dehydration

Under this alternative ARCO would construct three double platform complexes. Each production component of the platform complex would measure 130 feet by 205 feet and would have three decks with the first deck located about 50 feet above the water line and the top deck located about 60 feet above the lower deck. The drilling component of the platform complex would measure 120 feet by 180 feet and would have two decks with the first deck located 50 feet above the water line and the second deck 25 feet above the lower deck. The drilling derrick mast height would be 250 feet above the water level.

The applicant's proposal provides for dehydration of the oil to pipeline sales quality on each platform and transport of the dry oil onshore for temporary storage at Dos Pueblos and transport out of Santa Barbara in the Celeron-All American pipeline. The applicant proposes to use 2 new pipelines to bring the oil onshore.

CALENDAR PAGE
MINUTE PAGE 219

3. Commingled Oil Processing at Las Flores Canyon

Under this alternative the applicant proposes to construct a commingled oil processing facility in Las Flores Canyon. The wet oil emulsion would be commingled offshore and transported onshore in 2 new pipelines to landfall at Ellwood and transported from Ellwood in a single pipeline to Las Flores Canyon for final dehydration.

Under this option ARCO proposes to use either double platform complexes or single platforms as discussed above.

4. Gas Processing in Venadito Canyon

For this alternative the gas processing facility required by the project is located in Venadito Canyon instead of Las Flores Canyon. For analysis purposes, the design and operation of the facility are assumed to be the same as that in Las Flores Canyon.

5. Placement of Oil Pipelines to Las Flores Canyon in Offshore Gas Pipeline Corridor

This alternative would place one to three pipelines (depending upon whether a commingled or segregated system is used) within the same corridor as the proposed gas pipelines to Las Flores Canyon. The offshore pipeline corridor would require expansion in width by 100 to 300 feet for one to three pipelines respectively. This alternative would also assume that the crude oil pipeline between Ellwood and Las Flores Canyon and the Dos Pueblos South storage facility would not be constructed.

6. Placement of Gas Pipelines to Shore at Ellwood and then within the Onshore Pipeline Corridor to Las Flores Canyon

This alternative would place the proposed sweet and sour gas pipelines within the offshore pipeline corridor to Ellwood and then overland within the oil pipeline corridor to Corral Canyon. An expansion of 100 to 200 feet (30 to 61 m) in offshore corridor from Holly to landfall at Ellwood would be required. It is expected that the onshore portion of the pipeline would be accommodated within the 100-foot wide corridor. This alternative would eliminate the gas pipeline corridor from Haven to landfall at Corral Canyon.

7. Oil Storage at Las Flores Canyon

This alternative would elminate oil storage at Dos Pueblos South but would provide comparable wet and/or

CALENDAR PAGE
MINUTE PAGE 220

processed crude oil storage at Las Flores Canyon. This storage facility would be located at the proposed Exxon marine terminal tankage area east of Corral Canyon.

SANTA BARBARA COUNTY'S PREFERRED ALTERNATIVES

In testimony given to the Commission on January 13, 1987 Dr. William Wallace, Chairman of the Board, stated that the Board supported the following as alternatives to the project:

1. single platforms;
2. removal of Platform Heron;
3. onshore rather than offshore processing;
4. commingled transportation and processing as opposed to the segregated option;
5. development of alternatives to flaring; and
6. prohibition of onsite discharge of muds and cuttings.

EIR CONSULTANTS IDENTIFIED ENVIRONMENTALLY PREFERRED ALTERNATIVE (CEQA Guidelines Section 15126)

The consultant recommends that two single platforms (Heron and Haven) be constructed along with one double platform complex (Holly A-B). The single platforms would have the same size and configuration as those proposed by the applicant in alternative A and the double platform complex would be the same size as proposed by the applicant in alternative B. This proposal would provide for all oil to be dehydrated offshore at the Holly A-B complex. The oil could be processed in a commingled or segregated configuration. The dry pipeline quality oil would then be transported onshore to a consolidated storage facility at either Las Flores Canyon or Gaviota. The consultant has recommended the reinjection of all sour gas. The processing of the sweet gas would occur offshore.

The consultant recommends: (1) against the offshore disposal of muds and cuttings; and (2) the phase out and eventual shutdown of the Ellwood facility.

III. ISSUES AND RESPONSES

The following material responds to ten of the most critical issues raised by a significant number of the individuals who appeared before the Commission at the public hearing in Santa Barbara on January 13, 1987.

1. PRODUCED WATER

General Definition of the Issue

Produced water is the water produced with crude oil from the subsurface reservoir. The water is separated from the crude oil by emulsion breaking chemicals and heat applied during dehydration. This produced water is normally a brine primarily containing sodium chloride, with traces of other materials such as ammonia. Neither the applicant's proposed project nor the consultant's preferred alternative as detailed in the final EIR/EIS would result in any produced water being discharged into the ocean. These proposals call for the reinjection of produced water into geologic formations which do not contain fresh water. The Las Flores Canyon oil processing alternative favored by the County, is the only proposal which would result in produced water, after treatment, being discharged into the ocean through an ocean outfall. Such a discharge would have to comply with conditions specified by the permitting agency, and the Regional Water Quality Control Board.

General Impacts Identified in EIR/EIS

Although the EIR/EIS analysis for the Las Flores Canyon alternative identified no immediate lethal impacts to marine organisms from the treated produced water, it is possible that marine organisms could be affected over a prolonged period of time by regular discharges of this treated by-product. The data base on these sublethal effects is limited and therefore the exact extent of the potential damage is unknown. Since there is a potential for significant impacts and since the location of the outfall is near Naples Reef, a prime research area for UCSB marine biologists, impacts associated with produced water discharge are considered significant under CEQA guidelines.

Impacts to Isla Vista

If the County's Las Flores Canyon alternative is selected, the proposed produced water outfall would be located at the mouth of Corral Canyon which is several miles west of the community of Isla Vista. Therefore, no impacts would occur at Isla Vista.

CALENDAR PAGE
MINUTE PAGE 222

Mitigations

Impacts associated with the disposal of produced water from the Las Flores facility can be mitigated by requiring that the applicant dispose of produced water via injection wells at Dos Pueblos South or Ellwood as proposed in the other alternatives considered in the EIR/EIS.

2. NOISE

General Definition of the Issue

Offshore and onshore facilities will generate noise during construction, operation and abandonment activities. The EIR/EIS included field measurements of existing noise levels near all facilities as well as modeling of noise impacts from new facilities.

Two types of noise impacts were identified:

1. General noise impacts from sources such as diesel engines, compressors or other equipment. In general, these levels remained relatively constant; and,

2. Impact noises; those instantaneous noises produced by such activities as flaring, pile driving and other operations where metal clangs against metal.

It is entirely possible that under some atmospheric conditions, noise from the project, including human voices, could be heard by onshore residents and still not reach significant levels as defined in the EIR/EIS. The methodology used in the EIR/EIS is consistent with the Santa Barbara County Noise Ordinance and with other environmental reports prepared for the region.

General Impacts Identified in the EIR/EIS

The EIR/EIS addresses in detail the issue of noise resulting from construction and operations on the platforms.

Noise levels are commonly measured in decibels (db). In order to better understand the impacts discussed in this material, the following list of common noise levels is given to place the discussion of sound measurements in perspective:

Activity	Noise Level
Whispers	30 dB (A)
Quiet Office	40 dB (A)
Average Conversation at 3 feet	65 dB (A)
Noisy Stenographic Room	73 dB (A)
Train passing at 50 feet	90 dB (A)

CALENDAR PAGE
MINUTE PAGE 223

Noise associated with platform installation will cause adverse impacts at the shoreline. The piledriver used to drive the piles to anchor Platform Heron will, for example, produce a metal to metal clanking sound of approximately 50 dB (A) at the shoreline. This will increase noise levels by approximately 7 dB (A) above background level which is 43 db (A) during the quietest conditions. Other anticipated noises during platform construction are expected to raise the lowest background noise level at the shoreline by no more than 3 dB (A).

Onshore construction of the oil processing facility at Ellwood and the onshore pipelines will also cause disturbances. Noise generated during construction of the Ellwood facility will raise levels to 73 dB (A) at the Sandpiper golf course. Onshore pipeline construction will raise noise levels to 87 dB (A) at the same location and offshore pipeline construction will raise noise levels to 70 dB (A).

Operation of the platforms will also cause noise to be heard at the shoreline. This will occur particularly during drilling operations. The noise impact will result from the metal to metal clanking of equipment. Noise levels from this activity will be about 50 dB (A), 7 above the lowest background level. Flaring will not result in noise impacts at the shoreline. The EIR/EIS analysis indicates that the noise from flaring (approximately 63dB(A)) at the platform will diminish to a level below the background noise level at the shoreline of 43dB(A).

Impacts to Isla Vista

The general discussion of noise impacts above are applicable to Isla Vista.

Mitigations

No mitigation measures are available to reduce direct metal-to-metal impact noises to insignificant levels. However, it is State Lands Commission staff's opinion that general operational noise levels may be reduced through additional mitigation measures such as structural enclosures and the use of equipment buffering materials.

Moving the platforms further offshore would reduce the magnitude of impact noise, but would not reduce this impact to insignificant levels.

3. AIR QUALITY (Odors, Flaring)

General Definition of the Issue

Air pollution is a concern in the Santa Barbara-Ventura area because the area currently exceeds Federal and State standards for total suspended particulates (TSP) and oxidants.

CALENDAR PAGE
MINUTE PAGE 224

Under the regulations of the Santa Barbara County Air Pollution Control District (SBCAPCD), the permitting agency for air quality, a net air quality benefit to the area must occur as a result of project approval.

The project will be a major contributer of emissions of nitrous oxides (NO_X), reactive organic gases (ROG), sulfur oxides (SO_X), TSP, and carbon monoxide (CO). NO_X and ROG are important pollutants because they are necessary components in the formation of oxidant.

Odors result from the emissions of hydrogen sulfide (H_2S), methyl mercaptans, and sulfur dioxide. Acid rain and acid fog are also of concern.

General Impacts Identified in the EIR

Oxidant, NO_2, TSP, and odor impacts were defined in the EIR/EIS. Generally, the impacts of all alternatives were comparable. The impacts varied depending on the locations of the various oil and gas processing facilities.

Air quality impacts during construction are short-term and localized and while they may affect average yearly emissions, the impacts will not continue to occur once construction is completed.

Under regular operating conditions, when all equipment is operating properly, the EIR/EIS predicts minimal emissions. Under emergency conditions caused by short-term equipment failure or malfunctions, the release of more significant emissions is anticipated which would continue until the emergency condition is repaired and routine operations are resumed or the plant is shut down completely.

Although the project as originally proposed by the applicant could result in long term significant air quality impacts, the applicant cannot obtain a permit from the SBAPCD unless a net air quality benefit is demonstrated. The EIR identified extensive mitigation measures which could be used by the applicant to meet the standards set by the SBAPCD.

Flaring

Flaring resulting from the malfunction of platform equipment occurs infrequently. The flare is used to combust released gases and is 99.0% to 99.5% efficient in converting H_2S to SO_2. SO_2 is not a problem in the air basin. Flaring would have a visual impact which can only be mitigated by reducing the time required to repair equipment.

CALENDAR PAGE
MINUTE PAGE 225

Odors

Even under irregular operating conditions and worst case meteorology, odors from the offshore platforms would dissipate to levels not detectable by humans before they reached the shoreline. Significant odor impacts were, however, identified for all onshore oil and gas processing facilities when upset conditions occurred.

Other Air Quality Concerns

Toxic pollutants for which there are no standards and potential acid rain or acid fog were also considered in the EIR/EIS. No impacts were predicted from known toxic materials. The situation for acid rain and acid fog is, however, more difficult to predict.

While some of the chemical and physical mechanisms leading to the formation of acid in atmospheric water droplets are known, the phenomenon is not well understood. Cause and effect relationships are difficult to establish. Components necessary to the formation of acid in the atmosphere will be emitted by the project, namely sulfur dioxide (which may react to form sulfuric acid) and oxides of nitrogen (which may react to form nitric acid). Thus, there is the potential for formation of acid rain or acid fog in the region from pollutants emitted by the project or other projects.

However, no acid precipitation problem has been identified in the Santa Barbara and Ventura County areas. Components necessary for the formation of acid rain (NO_3 and SO_3) do not occur in high enough concentrations in the area. Therefore, there is minimal potential for significant impacts of acid rain.

Impacts to Isla Vista

Generally, Isla Vista will experience air quality impacts similar to those experienced by other communities along the south coast of Santa Barbara County.

Residents of Isla Vista currently detect odors that have been attributed to the seeps, Platform Holly, the ARCO marine terminal loading operations or some combination of these sources. Modeling conducted for the EIR/EIS indicated that odors from the new offshore facilities would not be detectable in Isla Vista. It is possible that odors from upset conditions at an Ellwood oil and/or gas processing facility could be detected in Isla Vista under certain wind conditions.

CALENDAR PAGE
MINUTE PAGE 226

Residents have also indicated concern about acid rain an acid fog. Given the available information on existing acid precipitation conditions (there appear to be none) and the amounts of precursors expected to be emitted by the project or other projects, it does not appear that significant acid rain or acid fog attributable to oil development will occur in Isla Vista.

Mitigations

Mitigation measures differ somewhat for construction and operation activities, although some mitigation measures are applicable to both. Generally, these measures fall into two broad categories: 1) technical controls on emissions sources and 2) operational controls on the scheduling and use of equipment. ARCO has agreed to mitigation measures which will meet the standards established by the local air quality control district.

4. MUDS AND CUTTINGS

General Definition of the Issue

Drilling muds are the fluids used in the well bore to control the well flow, lubricate the drill string and bit during drilling, and remove the material cut by the drill bit from the bottom of the well to the surface. Drill cuttings are the rock fragments cut by the drill bit.

General Impacts Identified in the EIR/EIS

The EIR identified many impacts associated with the discharge of muds and cuttings. Among the most significant impacts are burying of hard bottom marine communities, impact to the university sea water intake, contamination of Naples Reef, and adverse effects on commercial and other marine species, among others.

Mitigations

The effects are most effectively mitigated by preventing the discharge of muds and cuttings at the platform locations. Hauling the drilling muds and cuttings to shore or to a federally approved offshore disposal site will eliminate the impacts.

5. COMMERCIAL FISHING

General Definition of the Issue

Commercial fishing is an important activity within the Santa Barbara Channel. Fish species regularly sought in the

CALENDAR PAGE
MINUTE PAGE 227

area are lobster, halibut, sea bass, and the ridge-neck prawn, among others. Impacts to commercial fishing fall into four major categories. First, the exclusion of fishermen from an area on a temporary basis due to construction of facilities. Second, the exclusion of fishermen from an area on a permanent basis due to the installation of platforms and pipelines. Third, the ongoing operational conflicts between fishing vessels and vessels servicing the platforms; and fourth, damage to fishing equipment.

As an example, the current installation of platform and pipelines in the Point Arguello Field will affect local fishermen over a period of six to twelve months. At the peak period of construction, ten to twelve vessels were involved and conflicts with fishing vessels did occur. However, damages have been compensated according to the terms of their permits.

General Impacts Identified in the EIR/EIS

The EIR identified significant impacts upon the activities of commercial fishermen. Exclusion of gillnetters and trappers during the peak fishing season and loss of fishing gear were addressed. The Coal Oil Point area is heavily fished by gillnetters from January to March when halibut migrate into the area. Trap fishermen would be affected if construction activity occured after mid-October when lobster season begins.

Damage and loss of gear during construction were also considered during the development of the EIR/EIS.

Loss or damage to the commercial fishing habitat was also addressed. Disturbance of benthic habitats (or kelp bed) during construction or operation could have significant effects on the productivity of commercial species and subsequently affect commercial fishermen. Vessels traveling through kelp beds could have considerable effect.

The EIR also addressed potential impacts on mariculture. A mariculture lease just off Goleta Point could be affected by discharges or oil spills from the project.

Exclusion of fishermen from areas as a result of the placement of platforms is considered an adverse impact. The EIR also recognized potential loss of fishing gear or traps due to project vessels traveling outside of designated corridors as a significant impact.

CALENDAR PAGE
MINUTE PAGE 228

Mitigations

The EIR identified mitigations which would reduce the impact to commercial fishing to insignificance. Scheduling construction activities of pipelines outside of principal fishing seasons in the area, minimizing the construction schedule, using corridors for pipelines and publishing and noticing construction for pipelines in advance will eliminate most of the adverse impacts associated with construction.

Direct compensation to fishermen for loss or damage of fishing gear or equipment is an effective mitigation.

Other mitigation includes:

(1) Enforcement of vessel traffic corridors.

(2) Enforcement of an identified vessel corridor between Ellwood pier and the platforms in order to eliminate or lessen impacts to the kelp beds.

(3) Restoration of damaged benthic habitats and kelp beds.

(4) Prevention of the discharge of muds and cuttings.

(5) Relocation of platform Heron off the hard bottom.

(6) Adoption of an Oil Spill Contingency Plan approved by State Lands Commission.

(7) Enforcement of the Commission's requirement for a Critical Operations and Curtailment Plan.

6. MARINE TERMINAL/PIPELINES

General Definition of the Issue

Under ARCO's proposed project, the Ellwood marine terminal would be phased out following the completion of onshore connections to transport their oil out of Santa Barbara via the almost completed Celeron pipeline. If any alternative is selected for processing a "new" Coal Oil Point oil at a site other than Ellwood, such as at Las Flores, existing production from Holly would remain at Ellwood and the marine terminal would not be phased out. There are no proposals to transport new production from the Coal Oil Point Project via marine transportation.

CALENDAR PAGE
MINUTE PAGE 229

General Impacts Identified in the EIR/EIS

The use of the Celeron pipeline would eliminate environmental impacts generally identified with marine transportation such as air quality, oil spills offshore, etc. The Ellwood marine terminal is an existing facility.

Impacts to Isla Vista

See discussion of odors within Air Quality. The impact described would continue if the operations of the existing Ellwood marine terminal are maintained.

Mitigations

None specified for marine transportation as it is not part of the proposed project.

7. RELOCATION OF PLATFORM HERON

General Definition of the Issue

Platform Heron is the most easterly of the three platforms in the project, proposed by the applicant. It is planned to be located on Lease 308 close to the common boundary with Lease 309 and about 10,000 feet offshore, roughly on line with a southerly extension of Camino Corto, a major street in Isla Vista. Heron is expected to be the most productive of the three proposed drilling sites, producing slightly more than 50 percent of the total resource production.

Local residents have voiced their concern about the visual impact of Heron as seen from Camino Corto as well as potential noise and light reaching shore from the platform.

The proposed site for Heron also poses potential problems because it is located on rocky bottom habitat, creating concerns for fishermen, biologists and scientists.

General Impacts Identified in the EIR/EIS

If Heron is placed as proposed, there are likely to be unavoidable adverse impacts created by the project. These include visual/aesthetic impacts, loss of hardbottom areas, as well as increased noise and light created by both construction and operation of the platform. An expanded discussion of noise, air quality, disposal of muds and cuttings, and produced water discharge appear separately in this material.

CALENDAR PAGE
MINUTE PAGE 230

Impacts on Isla Vista

Camino Corto is a major north-south street in Isla Vista, offering access to the beach from El Collegio Road. El Collegio in turn is the westerly outlet from the University's main campus. Platform Heron, as proposed, would be located along the southerly projection of Camino Corto, within full view of motorists driving south along the street. While moving the platform location either east or west would reduce the visual impact from Camino Corto, it is not likely to eliminate the issue as a concern.

Mitigations

Alternatives to the proposed location of Platform Heron include: no platform; moving the platform 1000 to 1500 meters to the west; moving it to the east; or moving Heron further offshore. Each of these options is discussed briefly below.

No platform:

Platform Heron is expected to produce more than 50% of the total production of the project. Without Heron a portion of the resource would not be recovered and leases PRC 308 and 309 would not be fully developed.

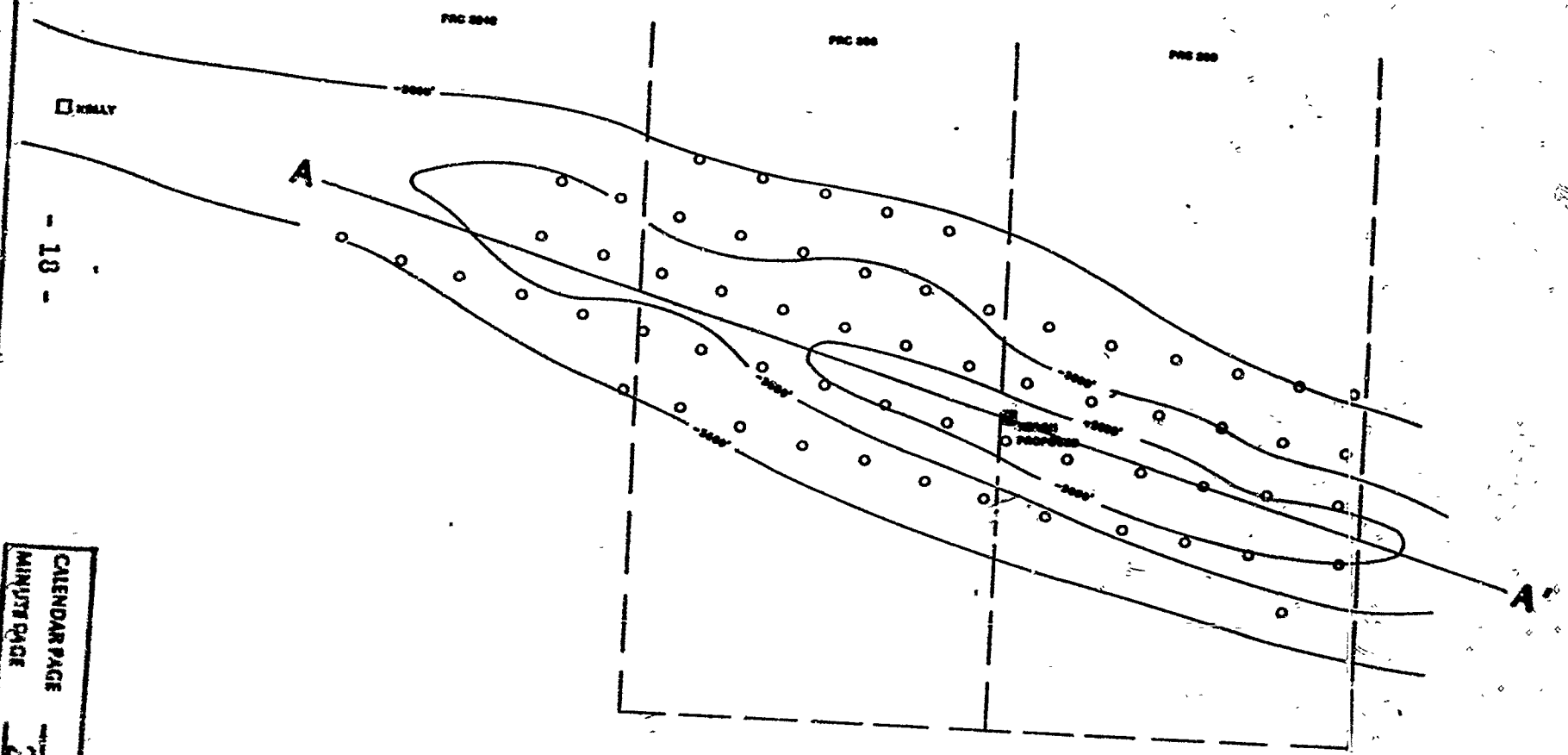
Moving the platform 1000 to 1500 meters west:

Locating Heron further to the west, while reducing the hard bottom and visual impacts, would move the platform off of the optimal location for access to the oil field. It is estimated that recoverable reserves will decrease by 25 percent under this alternative. As a result significant amounts of the resource could not physically be developed. The illustration which follows this discussion demonstrates this problem.

Moving the platform to the east:

Locating Platform Heron considerably east of its proposed location would have similar impacts to those occurring from a westerly move. Again, movement east would remove it from the Camino Corto line of sight but also would result in a significant amount of unrecoverable reserves as shown on the illustration of a westward move.

CALENDAR PAGE
MINUTE PAGE 231

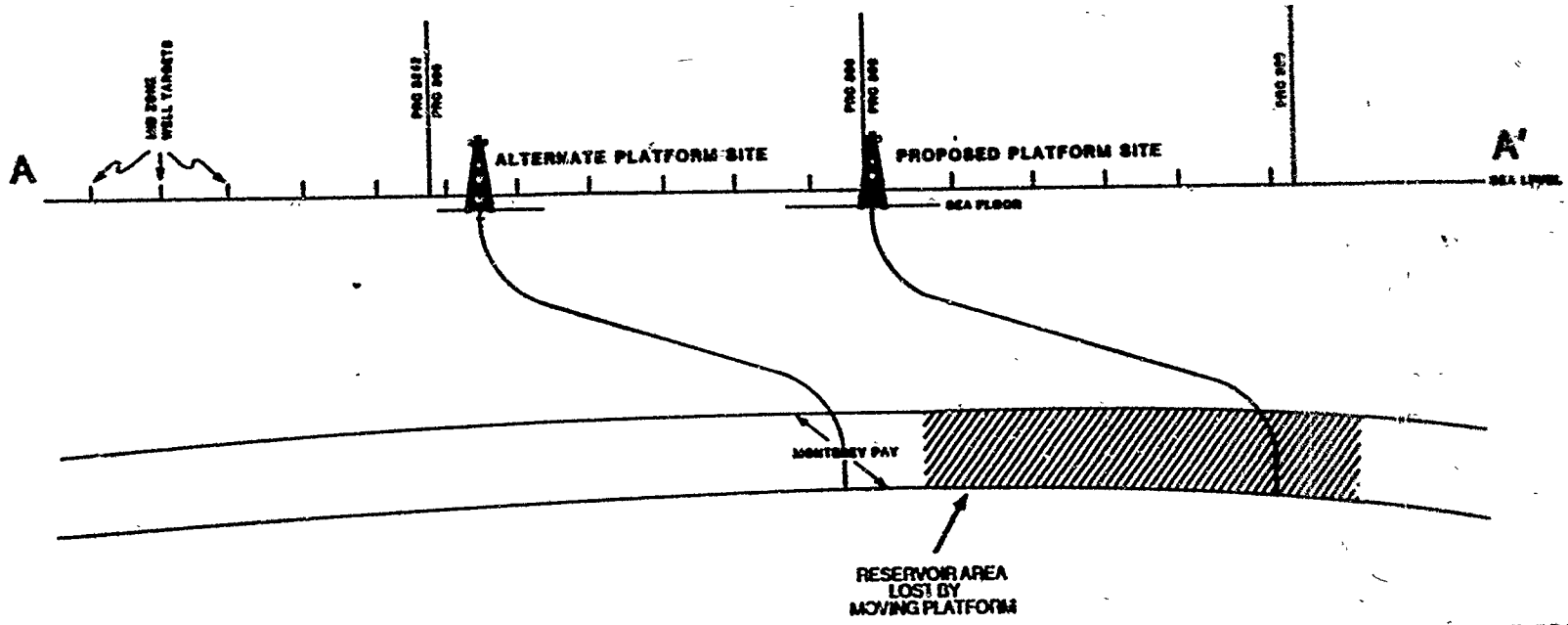


COAL OIL POINT PROJECT

MONTEREY STRUCTURE

SCALE 1" = 1000' DATE 1-9-87

CALENDAR PAGE
MINUTE PAGE 233



COAL OIL POINT PROJECT

SECTION A-A'

SCALE 1" = 1000' DATE 1-9-87

CALENDAR PAGE 233
MINUTE PAGE

Moving the platform further offshore:

A move to the south would reduce the visual impact of the platform and to some extent also lessen the noise impact. It is also likely a reduction of recoverable reserves may occur but to a lesser extent than a move either east or west, depending on the distance involved.

8. REVENUE SHARING WITH LOCAL GOVERNMENT

General Definition of the Issue

Revenue to the State from offshore oil and gas production in state waters go into the State Treasury. While the funds are used for a variety of purposes, the law provides for only a small portion of the revenue to be transferred back to local governments in the area of lease production.

Revenues to the State from oil and gas production on tide and submerged lands is deposited into several different funds pursuant to Public Resource Section 6217. For 1985-86 the funds and amounts were:

	$ Million
General Fund	15.0
California Water Fund	25.0
Fisheries Restoration Fund	5.0
Central Valley Project Construction Fund	5.0
Capital Outlay Fund for Public Higher Education	126.0
State School Building Lease-Purchase Fund	150.0
Energy and Resources Fund	5.7
Special Account for Capital Outlay	94.3
	426.0

Of the General Fund portion of this money, $465,000 was allocated to local government under the provisions of Public Resources Code Section 6817. Section 6817 allots funds to local cities and counties with ocean frontage on state oil and gas leases which is owned and operated as a park and available free of charge for recreational use. Allocation is made by a specific formula which provides for 1% of the State revenues from these leases, up to $100,000 per mile of qualifying frontage, to be returned to qualifying local governments. Revenues which exceed those received by the State in the 1983-84 fiscal year are not subject to the $100,000 limitation.

CALENDAR PAGE
MINUTE PAGE 234

General Impacts Identified in the EIR/EIS

General revenues to 17 local government entities are expected to increase with population and personal income increases due to the project. These include both the city and county of Santa Barbara. Additionally, Santa Barbara County is projected to receive an increase of $5.9 million per year from property taxes. No other counties or municipalities are expected to receive significant additional property tax revenues.

Impacts to Isla Vista

Because Isla Vista is an unincorporated area of Santa Barbara County, it does not directly receive any funding under Section 6817. However, Santa Barbara County may use its alloted funds within the Isla Vista community so long as the work is consistent with the statutory limitations. For 1985-86 Santa Barbara County received $100,000.

Mitigations

Revenue sharing for local government including special districts and unincorporated communities could be authorized by statute. Funds provided under the existing subvention program to Santa Barbara County could be used in the Isla Vista or other qualifying areas of the county.

9. PRESSURIZATION AND NATURAL SEEPS

General Definition of the Issue

The Coal Oil Point Project involves the development of three reservoirs. Such development is often accomplished through the injection of materials (usually gas or water) to facilitate extraction of hydrocarbons. Speakers at the January 13 public hearing expressed concern that injection of gas would cause additional seepage of oil and gas into the ocean.

Concern was expressed that a previously drilled and abandoned well (3120-2) was leaking.

General Impacts Identified in the EIR/EIS

Seepage of oil, gas and tar has occurred naturally and was present in the earliest records for the area. These seeps within the Santa Barbara Channel can produce 50-70 barrels of oil per day. Rates of seepage vary over time, rising and falling at irregular intervals. ARCO has constructed two metal tents which are being used to contain some existing gas seeps.

CALENDAR PAGE
MINUTE PAGE 235

An inspection of well 3120-2 is planned within the very near future.

Impacts on Isla Vista

Isla Vista, together with other shoreside communities, experiences tar and oil on the beach as a result of natural seep activity. Reduction in offshore reservoir pressures through development and production should have the beneficial effect of lessening seep flows.

The Coal Oil Point Project does not propose artificial pressurization of the target reservoirs. Production reservoirs will be pressure depleted. This means that reservoirs will be produced by allowing the expansion of gas held under pressure to force the oil to the well bore. Introduction of gas or water is not planned to maintain reservoir pressure. Thus, there will be no chance for pressurization to have an impact on the seep rates.

Periodic aerial inspection has not shown leakage at the location of well 3120-2. Subsea television inspection in the past has showed no leak.

Mitigations

Since no reservoir pressurization is planned, no mitigation is necessary.

Reinjection of sour gas is contrary to longstanding State Lands Commission policy.

If the inspection of well 3120-2 indicates it is leaking, ARCO will be asked to take whatever steps are necessary to stop the leak.

10. COMMINGLING VS. SEGREGATION

General Definition of the Issue

The State Lands Commission generally requires the segregation of wet oil from different leases with variable royalty rates until the oil is dehydrated and sold at the LACT (Lease Automatic Custody Transfer) unit. The actual crude oil produced is then accurately measured and its quality determined from each lease or group of leases having the same royalty terms. On the other hand, commingling of wet crude oil from leases with different royalty rate structures prior to dehydration is viewed by the County of Santa Barbara as a desirable means of processing the most oil in the fewest and smallest facilities.

CALENDAR PAGE
MINUTE PAGE 236

In a segregated oil processing facility, the oil from a single lease is kept separate from oil from any other lease until the net dehydrated oil can be measured at the LACT unit. The LACT unit is used to measure the dehydrated oil for sale. This simplifies royalty determination because no allocation is necessary.

In a commingled facility, oil from multiple leases produced at different royalty rates is processed in common processing facilities. This requires an accurate wet oil allocation and measuring system in order to determine how much of the net dehydrated oil belongs to each lease or well in order to calculate each lease's royalty.

A study (Dr. James R. Bence-UCSB Professor) commissioned by Santa Barbara County, concludes that measurement errors in a commingled system are unbiased and random and therefore all errors will cancel out over the life of the project. However, an evaluation of the Bence study by Dr. John Lohrenz (USC) commissioned by the State Lands Commission concludes that the Bence study is statistically correct if such errors are unbiased and random. However, the Lohrenz study states that the measurement errors associated with a commingled system are <u>biased</u> and <u>non-random</u> and would result in the loss of millions of dollars of revenue to the State.

The staff of the Commission is continuing its examination of the technical capabilities of existing measurement technology. On the basis of a statement by the University at the January 13, 1987 hearing that accurate measuring devices for wet oil commingled systems presently exist in worldwide application, the Commission has retained additional technical expertise and arranged a meeting for Thursday, January 22, 1987 with University personnel.

<u>General Impacts Identified in the EIR/EIS</u>

The EIR/EIS examined the environmental impacts associated with both systems. From that analysis it can not be concluded that either system is environmentally preferable or superior to the other.

Impacts to Isla Vista

N/A

<u>Mitigations</u>

N/A

CALENDAR PAGE
MINUTE PAGE 237