STATE OF CALIFORNIA – THE RESOURCES AGENCY PETE WILSON, *Governor*

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Item No. 13.5a

PERMIT
STAFF RECOMMENDATION
REGULAR CALENDAR

APPLICATION FILE NO.: **E-97-23**

APPLICANT: **Torch Operating Company**

PROJECT DESCRIPTION: Platform Irene pipeline to shore: cut and replace a severely cracked section of a 20-inch-diameter subsea pipeline, and perform additional repairs and tests necessary to ensure the pipeline is safe to commence oil transport operations.

PROJECT LOCATION: Pipeline is located in state waters, approximately 2.5 miles west of Point Pedernales, in the Santa Maria Basin (Exhibit 1). Platform Irene and a portion of associated pipelines are located in federal waters.

SUBSTANTIVE FILE DOCUMENTS: See Appendix A

Staff Note: Many of the pipeline tests required in the Special Conditions are currently underway and the results should be available by the Commission's December 10, 1997 hearing. The test results may necessitate an addendum to this staff report.

SYNOPSIS

On September 29, 1997 at 2:32 AM, the Torch Operating Company (Torch) reported a crude oil spill from a leak in the subsea 20" crude oil pipeline from Platfrom Irene, approximately 2.5 miles offshore at a depth of 117 feet (see Exhibit 1). The actual volume of oil spilled is still under investigation, but it is estimated to be between 200-500 barrels of crude oil. The oil spill resulted in the oiling of approximately 20 miles of beach and shoreline habitat in Santa Barbara County.

The leak was the result of a crack in the weld area at a flange connection, that eventually completely separated, breaking the pipe into two pieces. The Coastal Commission Executive Director - after consultation with all applicable federal, state, and local agencies - authorized immediate action to cut and replace the damaged section of pipe, pursuant to Emergency Coastal Development Permit No. E-97-20-G.

Torch completed the pipeline repairs authorized under its Emergency Coastal Development Permit as of November 11, 1997. Prior to resumption of production and pipeline operation, Torch must demonstrate that the pipeline is safe and secure for the transport of oil by successfully complying with the preproduction pipeline inspection and testing requirements of the Minerals Management Service (MMS) and State Lands Commission (SLC), which were developed in consultation with the California Coastal Commission, California State Fire Marshal/U.S. Dept. Of Transportation - Office of Pipeline Safety (CSFM/DOT), Division of Fish and Game-Office of Oil Spill Prevention and Response (DFG-OSPR), and the County of Santa Barbara.

As required by the terms of the Emergency Coastal Development Permit E-97-20-G and the Commission's regulations, this permit application is for the follow-up regular permit for authorization of the pipeline cut and replacement activities and the additional repairs necessary to bring the pipeline up to the level of safe operating standards sufficient for the commencement of oil transport operations.

Table 1 (pg. 3) summarizes project-related significant issues, potential impacts, and the mitigation measures that the applicant will need to implement to avoid, or reduce to insignificance, any impacts.

Staff recommendation: The staff believes that the proposed project, as conditioned, is consistent with Coastal Act policies. The staff recommends adoption of the findings and approval of the project as conditioned.

Table 1. Issue Summary: Potential Project-Related Impacts and Mitigation Measures

Potential Impact	Analysis
Oil Spill	**Issue:** Improper pipeline repair could result in additional release of crude oil into the marine environment. **Mitigation Measures:** The staff recommendation includes conditions, developed in consultation with the Minerals Management Service, the California State Lands Commission, the California State Fire Marshal/U.S. Dept. Of Transportation - Office of Pipeline Safety, the Department of Fish and Game - Office of Oil Spill Prevention and Response, and Santa Barbara County, which require Torch to conduct thorough inspections and testing of the pipeline prior to the startup of crude oil transportation and throughout the operating life of the pipeline. These measures will reduce, to the maximum extent feasible, the potential that an additional pipeline failure will result in the release of crude oil into the marine environment, or onshore in the Coastal Zone. • **Special Condition 1** provides that prior to the startup of the pipeline the Execuitve Director - in consultation with the MMS, SLC, CSFM/DOT, DFG-OSPR, and the County of Santa Barbara - shall approve the test results required by Condition 2 and shall determine if the 20" pipeline is safe to resume operation for the shipping of oil and water. Special Condition 1 further provides that, if at anytime during the operating life of the pipeline, the Executive Director - in consultation with the MMS, SLC, CSFM/DOT, DFG-OSPR, and the County of Santa Barbara - determines that the monitoring and testing results, required pursuant to Condition 3, indicate a failure of the pipeline to safely trasnsport oil and water; then the Execuitve Director may schedule a proceeding before the Coastal Commission to require termination of pipeline operations until Torch demonstrates the pipeline is safe to operate for oil and water transport. • **Special Condition 2A** requires Torch to hydrotest the pipeline at 150% maximum allowable operating pressure for eight hours and obtain approval of the test prior to startup of the pipeline. • **Special Condition 2B** requires Torch to obtain approval of a "smart pig" inspection of internal pipeline corrosion of the entire pipeline prior to startup of the pipeline. • **Special Condition 3A** requires Torch to conduct annual ultrasonic tests of all pipeline flanges for a minimum of three years, starting with the November 1997 test, to ensure the structural integrity of the pipeline and flanges. • **Special Condition 3B** requires Torch to perform regular sidescan sonar and/or ROV surveys of sea floor conditions throughout the pipeline corridor to detect any significant spanning that could affect the structural integrity of the pipeline. • **Special Condition 3C** requires Torch to hydrotest the pipeline at 150% maximum allowable operating pressure for eight hours at regular intervals. • **Special Condition 3D** requires Torch to conduct regular internal "smart pig" inspections for pipeline corrosion of the entire pipeline.

1.0 STAFF RECOMMENDATION

1.1. Approval With Conditions

The staff recommends conditional approval of the permit application.

Motion:

I move approve Coastal Development Permit E-97-23 subject to the conditions specified in the staff recommendation dated November 18, 1997.

The staff recommends a YES vote. To pass the motion, a majority vote of the Commissioners present is required. Approval of the motion will result in the adoption of the following resolution and findings.

Resolution:

The Commission hereby approves Coastal Development Permit E-97-23, subject to the conditions specified below, on the grounds that (1) as conditioned the development will conform with the provisions of Chapter 3 of the California Coastal Act and (2) will not cause any significant adverse environmental impacts within the meaning of the California Environmental Quality Act.

2.0 STANDARD CONDITIONS

See Appendix B.

3.0 SPECIAL CONDITIONS

The Commission grants this permit amendment subject to the following special conditions:

Condition 1: Review and Approval of Pipeline Monitoring Plan Results

Prior to startup of the 20" pipeline, the results of the **Pipeline Monitoring and Testing Plan specified in Condition 2** shall be submitted to the Executive Director of the Coastal Commission, MMS, SLC, CSFM/DOT, DFG-OSPR, and the County of Santa Barbara for their review and approval to determine if the 20" crude oil pipeline has adequately met safe crude oil pipeline operating standards. The Executive Director of the Coastal Commission - in consultation with the MMS, SLC, CSFM/DOT, DFG-OSPR, and the County of Santa Barbara - shall determine if the results of the tests, **specified in Condition 2 in the Pipeline Monitoring and Testing Plan**: 1) satisfy all governmental and industry design and operating standards applicable for the safe operation pipelines and processing facilities associated with Platform Irene; and 2) confirm that the 20" crude oil pipeline has been adequately repaired to safely transport oil and water in a manner that provides best achievable protection for the marine and coastal resources.

If at anytime during the operating life of the pipeline, the Executive Director - in consultation with MMS, SLC, CSFM/DOT, DFG–OSPR and the County of Santa Barbara - determines that the results of the ongoing monitoring tests, **specified in the Pipeline Monitoring and Testing Plan in Condition 3**, indicate: 1) a failure to satisfy any governmental or industry standard applicable to pipeline operations; 2) that such failure has resulted in unsafe operating conditions at any location in the pipeline onshore and/or offshore; and/or 3) that such failure has resulted in an increased risk of an oil spill onshore or offshore with potential impacts to marine and coastal resources; then the Executive Director may schedule a proceeding before the Coastal Commission to require termination of pipeline operations until Torch demonstrates that the pipeline is safe for oil transport.

Condition 2: Pipeline Monitoring and Testing Plan Requirements - Prior to Startup of Pipeline Operations

No later than 15 days prior to planned startup, Torch shall submit to the Executive Director and to the MMS, SLC, CSFM/DOT, DFG–OSPR and the County of Santa Barbara, the results of the tests conducted in Conditions 2A and 2B below. Startup may occur at the end of the 15 day review period if results are approved by all the listed agencies, unless the Executive Director schedules a proceeding before the Coastal Commission as provided in Condition 1. In that case startup shall not occur until the conclusion of the proceeding.

A. **Perform Hydrotest Prior to Pipeline Startup**

Torch shall hydrotest the 20" pipeline to 1-1/2 time the maximum allowable operating pressure for an eight hour period prior to startup of the pipeline operations.

B. **Internal Electronic Inspection Prior to Pipeline Startup**

Torch shall complete a "smart pig" inspection of the pipeline for internal corrosion prior to startup of the pipeline operations.

Condition 3: Pipeline Monitoring and Testing Plan Requirements - Post Startup of Pipeline Operations

Torch shall submit to the Executive Director and to the MMS, SLC, CSFM/DOT, DFG–OSPR and the County of Santa Barbara, the results of tests conducted in Conditions 3A, 3B, 3C, and 3D below. If the testing results obtained from Conditions 3A, 3B, 3C, or 3D detect any cracking or other failures in the structural integrity of the pipe, its flanges or its fittings, the Executive Director - in consultation with MMS, SLC, CSFM/DOT, DFG–OSPR and the County of Santa Barbara - may either: 1) require additional testing, which may include an extension of the duration of required testing to ensure the continued safe operation of the pipeline; 2) require Torch to make repairs to the pipeline (repairs may require an additional coastal permit), or 3) commence a proceeding before the Coastal Commission pursuant to Condition1.

A. Ultrasonic Test (UT)

Torch shall conduct annual ultrasonic tests of all of the 20" pipeline flanges using the shear wave crack detection method to determine the existence of near weld metal cracking. Torch shall continue the annual UT testing for a minimum of three years, starting from the November 1997 test. If the testing results obtained detect any cracking or other failures in the structural integrity of the pipe, its flanges or its fittings, the Executive Director - in consultation with MMS, SLC, CSFM/DOT, DFG–OSPR and the County of Santa Barbara - may require either additional UT or other testing which may include an extension of the duration of required testing to ensure the continued safe operation of the pipeline or may require repairs to the pipeline (repairs may require an additional coastal permit). If problems are found, this testing may be extended for as long as is deemed necessary by the MMS, SLC, CSFM/DOT, DFG–OSPR Santa Barbara County, and the Executive Director.

B. Enhanced Pipeline Inspections

Within 90 days following startup of the 20" pipeline, Torch shall perform a side scan sonar survey to document sea floor conditions. Within 15 days of completion of the survey, Torch shall submit to the Executive Director, SLC, MMS, CSFM/DOT, DFG–OSPR, and Santa Barbara County the survey results. Torch shall continue to conduct sidescan sonar and/or ROV surveys of the sea floor throughout the operating life of the pipeline. These surveys shall be conducted at a frequency of at least once every two years, and may be required quarterly or more frequently if determined necessary by the involved agencies.

C. Hydrotests

Torch shall hydrotest the 20" pipeline to 1-1/2 time the maximum allowable operating pressure for an eight hour period. The frequency of the hydrotests will be jointly determined by MMS and SLC - in consultation with the Coastal Commission, CSFM/DOT, DFG-OSPR and the County of Santa Barbara - based on the combined results of the tests required pursuant to Conditions 3A, 3B, 3C, and 3D. If problems are detected repairs to the pipeline may be required (repairs may require an additional coastal permit).

D. Internal Electronic Inspections

Torch shall complete an inspection of the pipeline for corrosion using an internal "smart pig". The frequency of the "smart pig" inspections will be jointly determined by MMS and SLC - in consultation with the Coastal Commission, CSFM/DOT, DFG-OSPR and the County of Santa Barbara - based on the combined results of the tests required pursuant to Conditions 3A, 3B, 3C, and 3D. If problems are detected

repairs to the pipeline may be required (repairs may require an additional coastal permit).

4.0 FINDINGS AND DECLARATIONS

The Commission finds and declares as follows:

4.1 Project Location

Platform Irene is located approximately 4.5 miles west of Point Pedernales, in Federal waters, on OCS Lease P-0441. Crude oil from the platform is transported to an onshore processing facility, north of Lompoc, via a 20" crude oil pipeline. The damaged subsea section of the pipeline is located approximately 2.5 miles offshore, in State waters, at a depth of 117 feet (see Exhibit 1).

4.2 Project Background.

On September 29, 1997 at 2:32 AM, Platform Irene operators reported to the Minerals Management Service (MMS) an oil spill from a failed subsea section of its 20" crude oil pipeline. The spill resulted from a crack in the welded area adjacent to a flange connection. The actual volume of oil spilled is still under investigation, but it is estimated to be between 200-500 barrels. The oil spill resulted in the oiling of approximately 20 miles of beach and shoreline habitat in Santa Barbara County.

The leak was detected during a routine "pig" cleaning operation. Monitors detected a drop in pressure at approximately 11:00 PM, the night of September 28, 1997. At that time, automatic shut-off valves located at the platform and onshore, shut down the entire subsea section of the pipeline. The platform is currently "shut in" with all production of oil stopped, at the direction of the Department of Fish and Game Office of Oil Spill Prevention and Response (DFG-OSPR) and the U.S. Minerals Management Service (MMS).

The 20" subsea pipeline was constructed approximately 11 years ago by Union Oil Company, as part of the Platform Irene Project in 1985. As built, the offshore production subsea pipelines consisted of a bundle of one 20" crude oil pipeline with two 8" gas and water pipelines strapped underneath it, and with the bundle resting on the Pacific ocean floor. Platform Irene and its associated pipelines were approved by the Coastal Commission in 1985 in the combined Consistency Certification CC-36-84-A and Coastal Development Permit E-85-10. Torch Operating Company, a subsidiary of Nuevo Energy Company, now owns the platform, pipelines, shore plant and associated facilities.

4.3 Project Description

The project description for this follow-up regular permit application E-97-23 includes two phases of pipeline repair and testing activities. **Phase One** repair activities were authorized under Emergency CDP No. E-97-20-G on October 16, 1997. **Phase Two** activities consisted of pipeline testing activities, which were required by MMS, SLC, CSFM/DOT, DFG-OSPR, and the County of Santa Barbara, to ensure that the repaired pipeline meets federal and state

standards for pipeline safety and is suitable for the shipping of crude oil and water. **Phase Two** testing activities must produce successful results before the pipeline will be approved for resumption of its oil transport operation. Phase One and Two activities are described in more detail below

- **Phase One** of the pipeline repair project for the cut and replacement of the damaged section of 20" pipeline consisted of the activities listed below. The repair activities 1-6 were completed on November 6, 1997. The pipeline flushing (activity 7) was completed on November 11, 1997.

    1. Immediately wrap the damaged pipeline section with fiberglass tape to stop the leak;
    2. Deploy a seep tent to contain any additional leakage;
    3. Install a pipe handling frame to support the pipeline span (see Exhibit 2);
    4. Stabilize the pipeline with sandbags;
    5. Tap pipeline to relieve pressure and recover remaining fluids;
    6. Cut and replace damaged section of pipeline; and
    7. Flush all remaining hydrocarbons from pipeline.

- **Phase Two** of the pipeline repair project consisted a number of testing activities to determine if the structural integrity of the pipeline is safe for the shipping of crude oil and water.

    These testing activities have been and will continue to be carried out under the oversight of SLC and MMS - in consultation with the Coastal Commission, CSFM/DOT, DFG-OSPR, and the County of Santa Barbara. All these agencies must approve the results of the tests before the pipeline can be put back into operation for transport of oil from Platform Irene. Complete details of the testing activities required by the above agencies, and incorporated into Torch's project description, are described in SLC's October 17, 1997 letter (Exhibit 3). Highlights of the most significant activities are listed below.

    1. "Cause of Failure" Analysis
        - A metallurgical analysis was performed on the damaged section of pipeline to determine what caused the crack in the flange and pipe area; completed November17, 1997.
    2. ROV Inspection of External Pipeline Surface and Survey of Pipeline Route
        - ROV inspection for external pipeline defects and to show the present location of the pipeline in relation to its as built location; completed November 11, 1997.
    3. Ultrasonic Testing of the Pipeline Flange Connections

- Ultrasonic testing to identify any cracks in the inside structure of the pipeline metal; will be completed by November 20, 1997 or prior to the startup of the pipeline.

4. Hydrotest of the Pipeline
   - Hydrotesting to determine if the fittings and structural integrity of the pipeline are secure for safe operation and shipping of crude oil and water; will be completed by November 25, 1997 or prior to the startup of the pipeline.

5. "Smart Pig" Inspection of the Pipeline
   - Smart Pigging to detect corrosion of the internal surface of pipeline; will be completed by November 25, 1997 or prior to startup of the pipeline.

4.4 Other Agency Approvals

4.4.1 U. S. Minerals Management Service (MMS)

In a letter dated October 17, 1997, the MMS ordered Torch not to commence production of oil at Platform Irene until a preproduction inspection has been completed, pursuant to 30 CFR 250.124(a)(11). The MMS will determine - after consultation with the Coastal Commission, SLC, CSFM/DOT, DFG-OSPR, and Santa Barbara County - the readiness of the 20" pipeline for oil transport operation, before the preproduction inspection is conducted. The **Special Conditions** were developed in consultation with the MMS staff and incorporate the MMS review and approval of the pipeline monitoring and testing results to ensure the pipeline is in safe operating condition.

Pursuant to Section 307(c)(3)(A) of the Coastal Zone Management Act, any applicant for a required federal permit to conduct an activity affecting any land or water use or natural resource in the coastal zone must obtain the Coastal Commission's concurrence in a certification to the federal permitting agency that the project will be conducted in a manner consistent with the California Coastal Management Program. The Commission's action on this permit application shall comprise its federal consistency review for the proposed project.

4.4.2 State Lands Commission (SLC)

In a letter dated October 17, 1997, the SLC informed Torch that returning the 20" pipeline to service for the shipping of crude oil would require SLC approval. The **Special Conditions** were developed in consultation with SLC staff and incorporate the SLC review and approval of the pipeline monitoring and testing results to ensure the pipeline is in safe operating condition.

4.4.4 California State Fire Marshal/U.S. Dept. Of Transportation - Office of Pipeline Safety (CSFM)

The California State Fire Marshal/U.S. Dept. Of Transportation - Office of Pipeline Safety requires a successful hydrotest of the pipeline before it is put back into operation. **Condition 1**

requires Torch to submit to the Executive Director, MMS, SLC, CSFM/DOT/DOT, DFG-OSPR, and the County of Santa Barbara approval of the hydrotest prior to the startup of the pipeline.

4.4.5 County of Santa Barbara (County)

The County issued FDP 94-DP-027 RV01 for Torch's Pt. Pedernales Project. Platform Irene and the three pipelines connecting the platform with the Lompoc HS&P are components of the Torch Pedernales project. The County has reviewed Torch's pipeline repair activities and will be reviewing all of Torch's testing results. The **Special Conditions** were developed in consultation with the County and include their requirements.

4.5 Coastal Act Issues

4.5.1 Oil Spills

Coastal Act Section 30232 states:

> *Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.*

4.5.1.1 Potential Project-Related Oil Spills

Two sources of potential oil spill risk arise from the repair of the Torch 20" crude oil pipeline: 1) the risk of oil spill from the actual repair activities; and 2) the increased risk of oil spill from the continued operation of the repaired pipeline.

4.5.1.1.1 Risk of Oil Spill From Actual Repair Activities

The pipeline repair project has a small risk for an additional oil spill during the cut and replacement phase. The risk is small due to the fact that the crude oil remaining in the pipeline has a heavy tar-like consistency and had solidified due to lack of pressure and heat in the pipeline.

4.5.1.1.2 Increased Risk of Oil Spill from Continued Operation of Repaired Pipeline

The crack rupturing the Torch pipeline resulted from structural failure in the weld area, not from a third party accidentally hitting the pipeline. The "Cause of Failure" analysis from November 17, 1997, reported:

> "The failure of the submarine pipeline primarily occurred after 11 years of service from cracks at the hard, brittle affected zone (HAZ) metal. Eventual failure occurred by shear or tear stress and strain due to mechanical forces and stress overload at the metal crack defects and flaws. Failure started at the bottom of the girth weld which may have been in a bending moment, thus subjecting this area to excessive high tension stress."

The analysis indicated steel embrittlement was caused by improper heat treatment applied at the time of the flange welding. Additional ultrasonic tests (UT) have been completed of the other eight flange areas to identify if subsurface internal cracks existed. The results of these UTs indicate the other eight flange areas do not have cracks and are structurally acceptable. Nonetheless, the structural failure of the one flange area is reason for concern for the safety of the pipeline and suitability of its structural integrity for the continued transport of oil and water.

4.5.1.2 Oil Spill Prevention

Coastal Act section 30232 includes two criteria. The first requires the applicant to provide "protection against the spillage of crude oil, gas, petroleum products, or hazardous substances...."

4.5.1.2.1 Oil Spill Prevention for Pipeline Repair Activities

As noted above, the proposed repair project could result in an accidental oil spill. Due to the emergency nature created by the pipeline being cracked in half, Torch has been unable to implement mitigation measures such as flushing the pipe before the cut and replacement activities are implemented. However, as noted above, the probability of additional spillage from the pipe is significantly small due to the tar like consistency of the oil remaining in the pipeline. As mitigation to minimize the spread of a spill if it did occur during the repair operations, Torch included in the project description the following specific mitigation measures: 1) installation of a seep containment tent adjacent to the damaged section of pipe; and 2) prepositioning of a Clean Seas Response Vessel (Clean Seas III) on site during the repair activities. In addition, the Platform Irene Oil Spill Contingency Plan is also in effect.

The Commission finds that the proposed pipeline repair activities, since they could not provide for flushing of the pipeline and therefore provide for effective protection against spillage of petroleum products, is not consistent with the first test of Coastal Act Section 30232.

4.5.1.2.2 Oil Spill Prevention for Increased Risk from Resuming Pipeline Operation

As noted above, the resumed operation of the repair pipeline raises concern for increased risk of accidental oil spills from the pipeline. Torch proposes to minimize the risk of oil spills by successfully complying with the additional testing activities required by SLC and MMS - which were developed in consultation with the other federal, state and local agencies - before the 20" pipeline is put back into oil transport service (see Exhibit 3). In addition, in order to ensure the ongoing safety of the pipeline for the shipping of oil and water, Torch has agreed to comply with the ongoing monitoring requirements described in the **Special Conditions**. According to the MMS and SLC engineers the ongoing pipeline monitoring requirements specified in the **Special Conditions** will provide early warning signs of potential pipe failure so that preventive measures may be taken if necessary.

Despite previous pipeline inspection and monitoring tests, pursuant to the requirements of SLC, MMS, CSFM/DOT, and the County of Santa Barbara, the structural integrity of the Torch 20" crude oil pipeline has already failed and resulted in significant oil spill impacts to the marine and

shoreline ecosystems. Therefore, the added safety margin that can be gained from any early warning signs identified in the ongoing pipeline monitoring requirements, is not sufficient to guarantee that there will be no further pipeline failure that could result in accidental release of oil before the pipeline defects can be repaired. Thus, the Commission finds that the proposal for resumed operation of the 20" pipeline for shipping of oil and water, as mitigated by **the Special Conditions**, does not provide for effective protection against the spillage of crude oil, gas, petroleum products, or hazardous substances and is therefore not consistent with the first test of Coastal Act Section 30232.

4.5.1.3 Oil Spill Response

The second test of Coastal Act Section 30232 requires the applicant to provide "effective containment and cleanup equipment and procedures for accidental spills that do occur."

Notwithstanding the extensive oil spill containment and cleanup capabilities of Torch, Clean Seas, and the Marine Spill Response Corporation, as provided for in Torch's Oil Spill Contingency Plan, the Commission finds that the second criteria of Coastal Act Section 30232, which requires "effective" containment and cleanup equipment for spills that do occur, cannot be met at this time. The Commission interprets the word "effective" as it is used in Section 30232 to mean that spill containment and recovery equipment must have the ability to keep spilled oil off the coastline. Unfortunately, as demonstrated in the September 29, 1997 oil spill from this 20" pipeline, the state-of-the-art is such that no equipment currently available has the capability to recover all oil from large spills and often even small spills in the open ocean.

Testing results of equipment at government research facilities in the United States and Canada have demonstrated that oil recovery equipment operates with about 50% effectiveness in relatively calm waters. These tests and actual field experience demonstrate that recovery efficiencies decrease as the dynamics of the sea (turbulence) increase. All booms and skimmers available for containment and recovery are limited in their effectiveness depending on wave height and wind speed. In wind wave conditions, the containment effectiveness of boom begins to lessen at a wave height of two feet. Under conditions of significant wave heights above six feet, booms and skimmers are largely ineffective (i.e., no measurable amounts of hydrocarbons are recovered). High winds can cause some types of boom to lay over, allowing oil to splash or flow over the boom.

In addition to sea dynamics, weather conditions, characteristics of spilled oil, response time, amount of oil spilled, and the availability of equipment and trained personnel all influence the success of spill response. Data from the General Accounting Office indicates that although spill response technology has improved in recent years, no more than 10-15% of the oil in most major spills is ever recovered. Shoreline contamination is probable with any major spill in the area. In a much smaller spill, such as the rupture of a pipeline at the El Segundo Marine Terminal in 1991, about 25% of the estimated 660 barrels of spilled oil were recovered in spite of a rapid and large spill response.

Because the ability to effectively contain and clean up an oil spill does not exist at this time, the Commission finds that the proposed pipeline repair project and the resumed operation of the pipeline is not consistent with the second requirement of Coastal Act Section 30232.

4.5.2 Coastal Dependent Industrial "Override" Provision

Coastal Act Section 30101 defines a coastal-dependent development or use as that which "requires a site on or adjacent to the sea to be able to function at all." Ports, commercial fishing facilities, marine terminals, and offshore oil and gas developments are examples of development considered "coastal dependent" under Section 30101.

Coastal Act Section 30260 provides for special approval consideration of coastal-dependent industrial facilities that are otherwise found inconsistent with the resource protection and use policies contained in Chapter 3 of the Coastal Act. The Torch subsea oil pipeline qualifies as a "coastal dependent industrial facility." In its consideration of a coastal development permit application for a coastal-dependent industrial facility, the Commission must first analyze the proposed project under all applicable Chapter 3 policies. If the proposed development does not conform with one or more of these policies, then the development may be approved under the coastal-dependent industrial override provision of Section 30260.

Coastal Act Section 30260 states:

> *Coastal-dependent industrial facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth where consistent with this division. However, where new or expanded coastal-dependent industrial facilities cannot feasibly be accommodated consistent with other policies of this division, they may nonetheless be permitted in accordance with this Section and Sections 3026l and 30262 if (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible.*

As described in Section 4.5.1 of this report, the proposed pipeline repair project and the resumed operation of the 20" pipeline does not conform with Coastal Act Section 30232 due to the potential for and significant impacts caused by a marine oil spill. Since the project qualifies as a "coastal-dependent industrial facility," the Commission may approve the project despite its inconsistency with Section 30232 if the three requirements of the coastal-dependent industrial override provision can be met.

4.5.2.1 Alternative Locations

The first test of Coastal Act Section 30260 requires the Commission to find that alternative locations for the project are infeasible or more environmentally damaging. Consideration of alternative project locations is not applicable in this case, since the subsea pipeline is an existing facility. The Commission finds that alternative locations for the repair and operation of the pipeline are infeasible.

4.5.2.2 Public Welfare

The second criteria of Coastal Act Section 30260 provides that the Commission may grant a permit for coastal-dependent industrial development despite inconsistency with other Coastal Act policies if to do otherwise would adversely affect the public welfare. The Commission believes that this test requires more than a finding that a project as proposed is in the interest of the public. Rather, the Commission must find that to deny a permit for the project would be harmful to the public welfare.

The Commission finds that to not grant a permit for the repair of the subsea pipeline so that it can be brought back into operation for the transport of oil and water form Platform Irene would adversely affect the public welfare. The existing oil and gas facility contributes to the U.S. production of hydrocarbons and generates state and federal royalty revenues. The proposed project therefore meets the second criteria of Coastal Act Section 30260.

4.5.2.3 Maximum Feasible Mitigation

The third test of Section 30260 requires a finding that the adverse environmental impacts of the project have been mitigated to the maximum extent feasible. As discussed in Section 4.5.1 of this report, the Commission has determined that the project is inconsistent with Coastal Act Section 30232 due to the inability of Torch to provide effective protection against the spillage of oil and to provide effective containment and cleanup capabilities and procedures in the case that an accidental oil spill does occur during the repair of the pipeline and its subsequent resumed operation for transport of oil. However, upon the applicant's acceptance of this permit as conditioned, the Commission can find that the environmental impacts of the project have been mitigated to the maximum extent feasible. Thus, the proposed project meets the third and final test of Coastal Act Section 30260.

4.5.3 Marine Resources

Coastal Act Section 30230 states:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Coastal Act Section 30231 states in part:

> *The biological productivity and the quality of coastal waters... appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored....*

The proposed subsea pipeline repair project poses minimal or no impacts to the marine resources and water quality in the project area. No hard bottom habitats exist in the area of the pipeline. The bottom consists of soft sediments. No kelp beds are present in the pipeline repair area. General seafloor disturbance will be minimal due to the small work area, sea floor characteristics, and pipeline route. Operations which will cause minor disturbance to the seafloor include jetting or airlifting to expose pipeline sections at the repair area. Anchoring will cause some disturbance to the seafloor. However, due to the large amount of sand transport and high swell energy at this location, any anchor scar will be quickly covered by the sand movement. As additional mitigation to avoid hitting the pipelines, the workboats for the pipeline repair project do have an anchoring plan.

The Commission finds the pipeline repair project consistent with Coastal Act sections 30230 and 30231.

4.6 California Environmental Quality Act

Section 13096 of the Commission's administrative regulations requires Commission approval of CDP applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(i) of the CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment.

The project as conditioned herein incorporates measures necessary to avoid any significant environmental effects under the Coastal Act. Therefore, the Commission finds that the proposed project is consistent with the resource protection policies of the Coastal Act and with the CEQA.

APPENDIX A

SUBSTANTIVE FILE DOCUMENTS

California Coastal Commission, Coastal Development Permit/Consistency Certification Nos. E-85-10/CC-36-84-A (Platform Irene).

_____, Emergency Coastal Development Permit No. E-97-20-G, Torch Operating Company Platform Irene Pipeline Repairs

Minerals Management Service, October 17, 1997, Letter to Phillip Sorbet, Torch Operating Company.

_____, November 13, 1997, Letter to John Deacon, Torch Operating Company.

Santa Barbara County, Final Development Plan Nos. 85-DP-71, 94-DP-027, 94-DP-027 RV01, Torch Operating Company Point Pedernales Project.

_____, Safety Inspection Maintenance and Quality Assurance Program, Torch Operating Company Point Pedernales Project, May 30, 1995.

_____, October 15, 1997 Letter to John Deacon, Torch Operating Company.

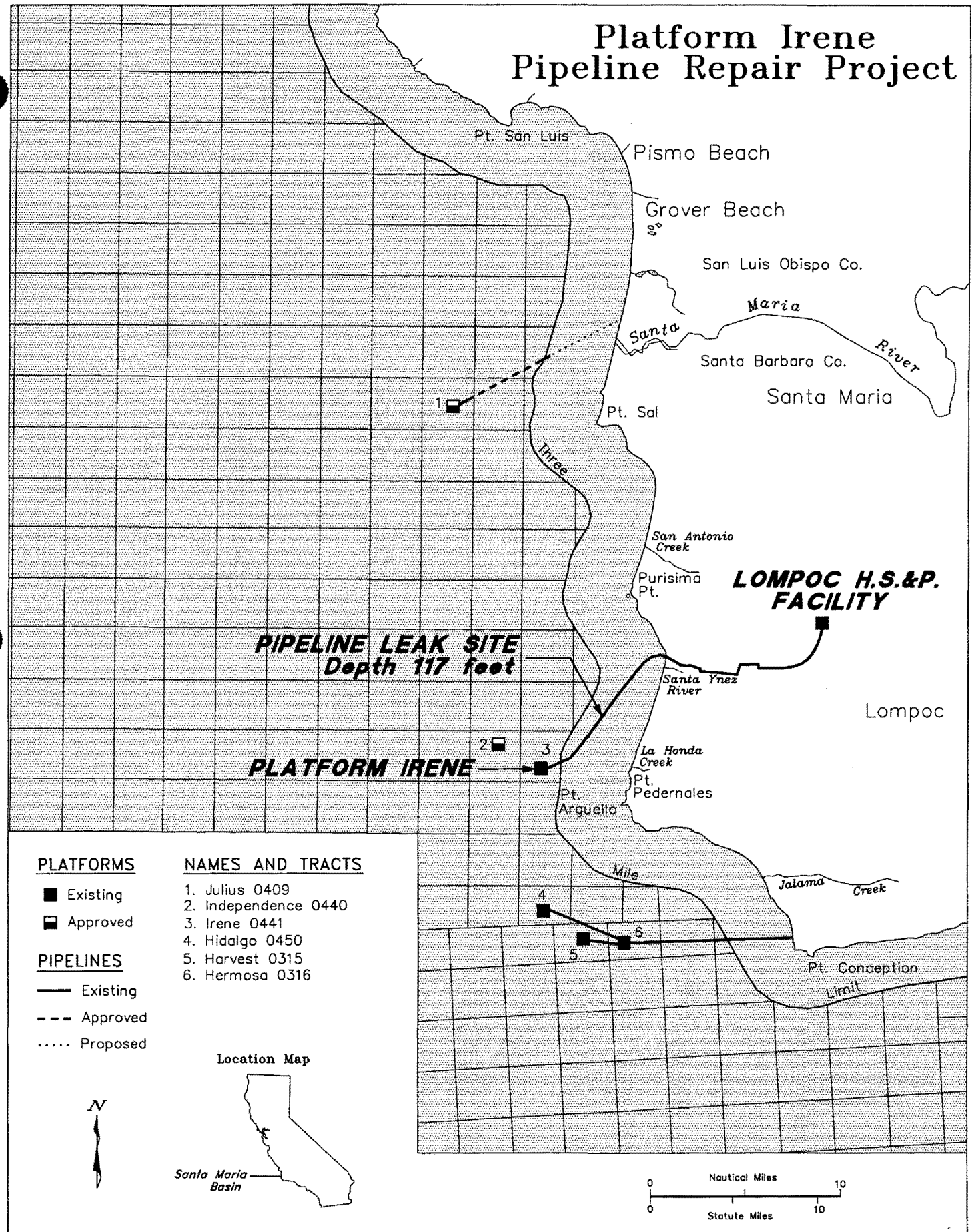
Torch AFE # 4869, Metallurgical Investigation and Failure Analysis of Submarine Pipeline for Torch Operating Company, Bill Keyser, P.E., November 16, 1997.

APPENDIX B

STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
4. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the executive director or the Commission.
5. Inspections. The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.
6. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

Platform Irene Pipeline Repair Project

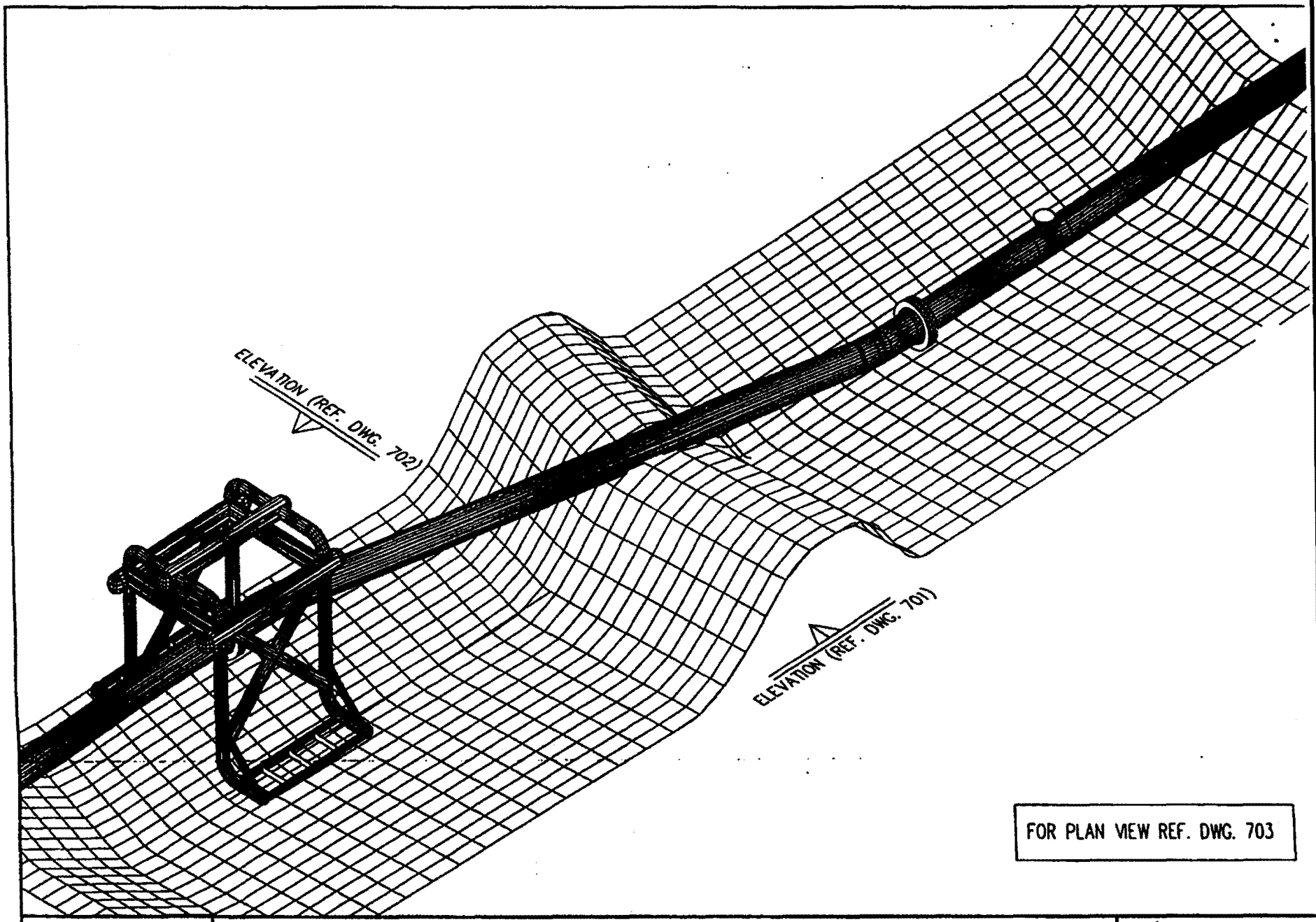


Source: MMS 11/94, OSPR 10/97 Note: Pipeline, Platform, and Spill locations are approximate.

JVC, ACH, JAY 10/97

California Coastal Commission
Technical Services Division

E-97-23 Exhibit 1



MPC
INTERNATIONAL, Inc.

TORCH OPERATING COMPANY

ISOM VIEW OF FIELD WITH FRAME

DWG. NO: 96-1-MS-700

ORIGIN. DATE:	REV. DATE:	REV
10/04/97		A

S NTS | PROJECT: A-097

E-97-23 Exhibit 2

CALIFORNIA STATE LANDS COMMISSION

GRAY DAVIS, *Lieutenant Governor*
KATHLEEN CONNELL, *Controller*
CRAIG L. BROWN, *Director of Finance*

EXECUTIVE OFFICE
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

ROBERT C. HIGHT, *Executive Officer*
(916) 574-1800 Fax (916) 574-1810
California Relay Service from TDD Phone 1-800-735-2922
from Voice Phone 1-800-735-2929

October 17, 1997

Mr. Phil Sorbet
District Manager
Torch Operating Company
201 South Broadway
Orcutt, CA 93455

Dear Mr. Sorbet:

The State Lands Commission is in receipt of your plans to prevent further leakage of oil presently in the 20" pipeline from Platform Irene. The proposed action is part of the ongoing spill response efforts undertaken pursuant to Government Code §8570.27. We have responded with our technical concerns to the group formed by OSPR. The Coastal Commission has issued its Emergency Permit E-97-20-G for this activity. We will continue to assist in any way needed to help in assuring a safe remediation. However, as such, these emergency efforts, by themselves, would not be sufficient for the ultimate resumption of operations.

Returning the line to service for the shipping of oil and water will require State Lands Commission (SLC) approval and approval of other agencies with jurisdiction. We will be cooperating with the other agencies to resolve this matter as quickly as possible. In order to allow you to plan a schedule of activities, the following conditions must be met before we can consider approval of the use of the 20" line for the transportation of crude:

1. A complete metallurgical analysis of the flange where the line failure occurred will need to be done by an approved laboratory to include:

    a. Determination of the cause of failure.

    b. Tests for hydrogen embrittlement or other corrosion mechanisms.

    c. X-ray spectrometry from installation records.

d. Tests to determine if the line meets mill specifications.

e. Tests to determine tensile strength and hardness.

2. The pipeline right-of-way must be surveyed to determine present location of the pipeline in relation to its as-built location.

3. The pipeline right-of-way must be surveyed to determine location and extent of all free spans. A calculation of the maximum safe free span length sustainable by the pipeline, which includes consideration of vortex shedding forces due to current and bottom surge, and a remediation plan for all locations where this span is exceeded, shall be submitted for approval to the Commission.

4. All flanges and other pipeline appurtenances must be externally inspected using magnetic particle, dye penetrant, or ultra-sonic inspection techniques for detection of cracks.

5. The pipeline must be internally inspected using an magnetic flux leakage inspection tool having the same resolution specification as used in the previous internal inspection.

6. A complete history of the pipeline must be provided to SLC to include installation history, including inspection results of the cathodic protection system.

7. The manufacturer's mill specifications and inspection results of the pipe material will be provided to SLC.

8. Hydrotest the line to 150% of MAOP.

9. Projected H2S concentration in the produced fluids to be transported through the line must be provided to SLC.

10. History of chemical treatments on the line must be provided to SLC.

11. Coordinate with SLC staff to insure SLC inspection records are complete.

All inspection and testing program procedures must be approved by SLC before they are performed. When the results of all of the above are received and analyzed, the SLC will make a determination as to the suitability of the line for use of transport of produced fluids. Further information and tests may need to be submitted to make this evaluation. At that time mitigation measures, remedial measures, or other actions may be required before the line is placed in service.

The coordination of your request for approval of procedures and results will be done through our Mineral Resource Management Division in Long Beach. If you have any questions please contact Gregg Scott at (562)-590-5740.

Sincerely,

Robert C. Hight

ROBERT C. HIGHT
Executive Officer

cc: CCC, Susan Hansch
OSPR, David Blurton
MMS, Tom Dunaway
CSFM, Bob Gorham
Energy Division, S.B. County, Bill Douros