

CALIFORNIA COASTAL COMMISSION

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DATE: June 24, 1999

TO: Coastal Commissioners and Interested Parties

FROM: Susan Hansch, Chief Deputy Director
Jaime Kooser, Deputy Director
Alison Dettmer, Coastal Program Manager
Ellen Faurot-Daniels, Supervisor, Oil Spill Program

SUBJECT: **Guadalupe Oil Field Spill Remediation Status Report – July 1999**

Staff Note:

In reports dated April 13 and April 22, 1999 (prepared for the May and June 1999 Commission meetings, respectively), Coastal Commission staff provided a brief history of the Unocal Guadalupe oil spill; past Coastal Commission involvement, including emergency permits issued; current ongoing remediation activities; and future remediation activities and permitting requirements. This status report provides updates on the most recent activities.

Guadalupe Site Visit Opportunity. *At their June 1999 meeting, several Coastal Commissioners expressed interest in a Guadalupe Oil Field site visit. San Luis Obispo County planning staff has responded by offering to assist in arranging such tours for Coastal Commissioners, either as a group or individually. (Please see Attachment 2, a letter from Bryce Tingle, Acting Director of Planning and Building, SLO, to Sara Wan, Chair, CCC, June 18, 1999).*

PROJECT BACKGROUND

The Guadalupe Oil Field site (Field) is located on the central coast of California approximately 15 miles south of the city of San Luis Obispo. It covers approximately 2,700 acres within the Nipomo Dunes system. The site is bordered by the Pacific Ocean on the western side and by the Santa Maria River and estuary/lagoon system on the southern side. It includes valuable dune habitat, wetlands, fresh water marshes and ponds, rare, threatened and endangered plants and animals, sandy beach, and the Santa Maria River. Most of the oil field is within San Luis Obispo County (County). All of the site is within the coastal zone.

Unocal acquired the lease to the Field in 1950 and operated it until 1990, using “diluent” to assist in the pipeline transportation of the heavy crude oil pumped from the field. During the time that diluent was used at the site, numerous leaks developed in the tanks and pipelines used to distribute it around the field. Over time, these leaks led to serious contamination of the ground water below the site. Site characterization studies to date show that almost 60 percent of the field could be contaminated, with estimates of the amount of diluent leaked over 40 years ranging between 8.5 million and 20 million gallons. To date, 90 diluent plumes have been identified within the Field. There are also at least 150 sumps (depressions of concentrated contamination) on the surface at various sites.

After years of characterizing the extent of soil and groundwater petroleum-hydrocarbon contamination at the site, Unocal is now under orders (Cleanup or Abatement Order (CAO) 98-38) from the Central Coast Regional Water Quality Control Board (RWQCB) to remediate 17 plumes identified by the RWQCB as posing the greatest threat to surface waters (called “Phase 1”). Two and one-half of the 17 Phase 1 plumes are located along the shoreline within the Coastal Commission’s retained permit jurisdiction. The other 14 ½ plumes are located within the County’s certified local coastal program (LCP) permitting jurisdiction.

On December 10, 1998, San Luis Obispo County approved a Coastal Development Permit (CDP/DP D890558D) for the remediation of the 14 ½ plumes in its permitting jurisdiction. Many of the contaminated soil sites are to be excavated and then backfilled with clean material. Discovery of contamination by polychlorinated biphenyls (PCBs) in December 1998 at certain Phase 1 sites has caused the excavation schedules to slip. Before excavation proceeds, Unocal is conducting additional non-diluent compound sampling for further agency evaluation.

Unocal’s Coastal Development Permit application for the 2 ½ plumes located within the Coastal Commission’s jurisdiction is incomplete in part pending further PCB and other non-diluent compound testing.

SITE ACTIVITIES, MAY 21-JUNE 24 1999

- Site 5X – Still awaiting results of ecological risk assessment for PCBs.
- Site M4 – Interim protective measures completed.
- Site O13 – Surveys completed; grading, pipeline abandonment, excavation, phytoremediation site preparation have begun.
- Sites TB8, TB9 and Diluent Tanks – Pipeline work.
- Site wide – Other decommissioning, infrastructure, and road improvement activities continue.

NEW ISSUES

Site 5X Sequencing

Unocal has offered for consideration a proposal to excavate the 5X site in a two-stage approach over two years, rather than as one excavation in one year as originally proposed. A draft of its proposal can be found in Attachment 1.

The two-stage approach would allow the west side of the 5X site (with the greatest exposure from river migration and wave action) to be removed first, and would be completed before the start of the next snowy plover breeding season. The 5X West side would be divided into two cells. The existing sheet pile at 5X will be used for the west walls of Cells 1 and 2, and additional sheet pile would be driven to form the north, south, and east walls of 5X West-Cell 1. Hydraulic control provisions will be implemented for the east walls of Cells 1 and 2 to contain the upgradient east plume while 5X West work proceeds.

Unocal has determined that work at both 5X West cells could be completed in the same year (November 1999-March 2000). Work at 5X would then stop for the snowy plover breeding season (March-September 2000) and resume the following fall with excavation of 5X East (September 2000-March 2001). The entire site would be fully excavated before the 2001 snowy plover breeding season begins. Unocal also suggests that with this new 5X sequencing proposal, heavy equipment and trucks would not need to use the "Loop Road" at the A2A site.

Unocal believes that this modified excavation schedule reduces ecological impacts on both snowy plovers and California red-legged frogs. All involved agencies have agreed that this concept has merit and deserves further consideration. Unocal is in the process of generating a schedule for all Phase I site work that accommodates a process for two-stage 5X excavations as part of the site sequencing demands for all Phase I sites, and compliance with the stipulated CAO timeline.

If the results of the PCB risk assessment for 5X indicate no ecological risk from PCBs sufficient to trigger a supplemental EIR, Unocal will amend its pending permit application to reflect Unocal's proposed changes to the 5X excavation work plan. The application will include Unocal's proposal to conduct 5X work in two stages. Unocal hopes to receive the risk assessment results by mid-July this year and have the permit application considered by the Commission at its October or November meeting.

DRAFT**5X - Sequencing Plan for Two Season Project****June 14, 1999**

Due to the requirement for a Risk Assessment prior to the conduct of the 5X project, the project start has been delayed to November, 1999. This late start date will preclude the project completion between snowy plover breeding seasons, with a potential negative effect on the breeding season. Therefore, a two season approach is proposed for the project to allow the west side (with the greatest exposure from river migration and wave action) to be removed as soon as possible without extending the project into the breeding season. Under the two season approach, the project would be conducted as previously outlined with some differences, as described below.

During the first season, November 1, 1999 through February 28, 2000, the west side of the plume will be excavated. The excavation of the east side of the plume will be conducted during the second season, September 15, 2000 through February 28, 2001.

Site safety fencing will be installed. The decommissioning of pipelines, power poles, and extraction wells will be completed for the entire site. The pipelines along the northerly portion of the A Road will be removed, and the area disturbed by the pipeline removal will be utilized to widen the road to accommodate two-way traffic. If the A Road is not widened, the loop road will be improved in preparation for construction traffic.

5X West

The west side of the plume will be excavated in the first season, in two cells. The vegetated overburden will be removed from both cells of the west side and placed in a remote stockpile, such as the South B Road stockpile. Additional vegetated overburden will also be cleared from the westerly portion of the east side as needed for the excavation of the west side. An access road will be constructed along the northerly side of the site.

Excavation of the west side will be conducted in two cells: Cell 1 on the south side and Cell 2 on the north. Since it is subject to the greatest threat from river migration, Cell 1 will be excavated first. The clean overburden will be removed from Cell 1 and stockpiled at Cell 2. The existing sheet pile will be used for the west wall, with additional sheet pile driven to form the north, south, and east walls of Cell 1. Hydraulic control provisions will be implemented for the east wall to contain the upgradient east plume.

The material from the adjacent portion of the east side will also be removed as needed for west side activities. At a minimum, a level bench will be needed for an extraction system that will be installed for hydraulic control on the east side of the easterly sheet pile wall. The affected material will be removed from Cell 1 and transported to TB 8.

Cell 1 will be backfilled using the clean overburden from the site and material from Q4. It is anticipated that the imported material from Q4 will be placed in the lower easterly portion of the excavation.

The sheet pile will be removed from the southerly side of Cell 1. It is anticipated that the previously installed sheet pile will be left in place for protection from the river. The clean overburden from Cell 2 and the adjacent portion of the east side will be piled on Cell 1. Sheet pile will be installed on the north and east sides of Cell 2. The extraction system will be installed adjacent to Cell 2 east of the easterly sheet pile wall. The affected material will be excavated and stockpiled at Tank Battery 8.

Cell 2 will be backfilled with the clean overburden stockpiled on Cell 1 and material from Q4. The material imported from Q4 will be placed in the lower easterly portion of the excavation.

All of the sheet pile will be removed except the east side of Cell 2. At this time, the west wall of Cell 1 (part of the original sheet pile wall) will also be removed. The southerly and southwesterly portions of the existing wall will be left in place to protect the site from the river. Upon sheet pile removal, if time and the sheet pile budget allow, some or all of the sheet pile could be driven for the east cell.

The west side will be graded to a flat elevation and left during the snowy plover breeding season (March 1st through September 15th), until the east side is excavated the following year.

As time between breeding seasons and the project activities allows, sumps located in the area will be excavated: LeRoy 3; LeRoy 6; 2X; and/or 8X.

5X East

The monitoring wells and any remaining surface facilities will be removed. The vegetated overburden will be removed and stockpiled in a remote location, such as the South B Road stockpile. It is anticipated that the extraction wells will be operated as long as possible, until the excavation activities require their removal.

Clean overburden will be removed and stockpiled on the west side to allow installation of the sheet pile walls along the north, east, and south sides.

The affected material will be removed and stockpiled at TB 8. Backfill material will be imported from Q4 and/or the LTU and placed in the bottom of the excavation. The sheet pile will be removed, and the clean overburden stockpiled on the west side will be placed over the east side.

The access roads and 5X Road sump will be removed. The entire site will be contoured and the vegetated overburden returned. The A2A north plume and the A2A sump will be removed, along with remaining sumps LeRoy 6, 2X, and/or 8X, which were not removed during the first season.

PHASED APPROACH TO THE 5X EXCAVATION
DRAFT

At issue is a proposal to conduct the 5X Excavation Project in two phases so as to limit impacts to ecological resources. As currently envisioned, Phase 1 (5X West) would begin in the fall of 1999 and continue until the start of snowy plover nesting season (March 2000). Phase 2 (5X East) would be conducted from September 2000 through February 2001.

The following is an outline of the benefits of this proposal.

- I. Ecological
 - A. Snowy Plover
 - 1. Eliminates or reduces impacts to the nesting season in 2000.
 - 2. Avoids potential for further impacts if project is delayed.
 - 3. Avoids potential loss of "first wave" of nesting plovers.
 - a. Returns nesting habitat to use prior to plover arrival.
 - b. Avoids impacts from construction activity.
 - 4. Avoids nighttime impacts to foraging plovers.
 - B. California Red-Legged Frog
 - 1. Eliminates or reduces nighttime impacts to frogs.
 - 2. Minimizes traffic-related impacts.
 - a. Minimizes traffic, improves queues.
 - b. Avoids impacts at B2-3 pond and marsh ponds.
 - C. Habitat Disturbance
 - 1. Lessens the need to widen the access route to the Q4 borrow site.
 - 2. Avoids the need to improve/maintain Loop Road.
 - a. Minimizes extent of exclusion fencing.
 - b. Minimizes ecological exposure.
 - D. Air Quality
 - 1. Spreads emissions over three calendar years, providing some relief for emission reduction credits.
 - 2. Reduces emissions by eliminating generators for lights.
 - E. Other
 - 1. Reduces impacts caused by "attractive nuisance" lighting.
 - 2. Reduces risk of release due to ocean and river intrusion by ending construction in early February.
- II. Safety
 - A. Traffic
 - 1. Potential to reduce traffic.
 - 2. Allows elimination of nighttime traffic.
 - 3. Potential to reduce impacts to ongoing field activities.
 - B. Site Congestion
 - 1. Allows reduced daily production rate and related congestion.
 - C. Avoids hazards related to nighttime operations.
- III. Construction
 - A. Allows reduced production schedule.
 - B. Increases efficiency by working daylight hours only.
 - C. Improves flexibility to respond to unforeseen items.

SAN LUIS OBISPO COUNTY

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June 18, 1999

Sara Wan, Chair
California Coastal Commission
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CALIFORNIA
COASTAL COMMISSION

Dear Chairperson Wan:

County staff attended your recent Commission meeting in Santa Barbara to discuss the Unocal clean up projects in San Luis Obispo County. At that meeting, several Commissioners expressed a keen interest in visiting both the Avila Beach and Guadalupe oil field clean up sites. As you know, your Commission will be addressing the specific plan now being prepared for Avila Beach, as well as the 5X clean up project on the beach at the Guadalupe oil field.

We concur that a field trip to these two areas would be educational for all Commissioners especially the new Commissioners who have not yet had an opportunity to visit the sites. We realize the difficulties in arranging logistics for the entire Commission to visit the County; however, we would be very pleased to assist in arranging tours for Commissioners, either as a group or individually. Please feel free to have your staff contact John Euphrat, Principal Planner, at (805) 781-5194 to assist in making arrangements for these site tours.

We continue to appreciate your agency's cooperation and assistance in working with San Luis Obispo County on the oil cleanup projects. We look forward to touring the project sites with you.

Sincerely,

Bryce Tingle, AICP
Acting Director of Planning and Building

cc: Peter Douglas