CALIFORNIA COASTAL COMMISSION

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STAFF RECOMMENDATION REGULAR CALENDAR

Union Oil Company of California

Kim Tulledge, Cannon Associates John Evans, Cannon Associates

Permit Number:

E-96-22

Applicant:

Agents:

Project Description:

Import and spread sand on the east side of Avila Beach, San Luis Obispo County, to prevent "daylighting" of an underground petroleum hydrocarbon plume. Unocal proposes up to five sand augmentations (between 2,000 - 6,000 cubic yards of sand per augmentation) during the 1996-1997 winter storm season (Exhibits 1, 2 and 3).

Substantive File Documents:

See Appendix A.

SYNOPSIS

Union Oil Company of California ("Unocal") proposes to import and spread sand on the east side of Avila Beach in San Luis Obispo County during the 1996-1997 winter storm season (Exhibits 1, 2 and 3). The purpose of the project is to reduce the probability of winter storms eroding the present sand cover and exposing an underground petroleum hydrocarbon plume. In this application, Unocal proposes to import sand from Coastal Rock in Santa Maria and/or Gordon Sand in Guadalupe. Unocal is exploring also the possibility of using dredged sand from the Port San Luis Harbor District to deposit on Avila Beach rather than import sand from an inland source.

In 1989, hydrocarbon contamination in Avila Beach's soil and groundwater was discovered during a routine geotechnical survey for a commercial building permit. Site assessment activities conducted since that time have revealed the presence of gasoline, diesel and crude oil within the soil and groundwater under five square blocks of town of Avila Beach and under the sandy beach.

In November 1995, the executive director of the Coastal Commission issued to Unocal emergency permit E-95-16-G to remediate an underground plume of contamination on the west end of Avila Beach. Special Condition 15 of emergency permit E-95-16-G requires Unocal to conduct ongoing monthly beach cross surveys to determine the level and thickness of sand covering the remaining plume underlying Avila Beach. In the event that sand is reduced below four feet, Unocal is to import and spread sand over the plume to increase the depth cover to a minimum of four feet. The results of Unocal's April 1996 survey show that certain sections of the east side of the beach, located between the Pacific Ocean shoreline and Front Street just east of the Avila Beach Pier, presently has less than four feet of sand cover.

On August 27, 1996, the Regional Water Quality Control Board - Central Coast Region ("RWQCB") issued Cleanup or Abatement Order 96-42 directing Unocal to implement by November 15, 1996 an **interim** plan to reduce the risk of releasing petroleum hydrocarbons to the marine environment during the winter of 1996-1997 (Exhibit 4). The RWQCB has also ordered Unocal to prepare a **long-term** cleanup plan to eliminate the risk of releasing to marine waters petroleum hydrocarbons located beneath Avila Beach.

The proposed sand importation project is Unocal's proposal to satisfy both the RWQCB's order to implement an interim containment plan during the 1996-1997 winter storm season and Special Condition 15 of emergency permit E-96-16-G.

The proposed sand importation project has two components: (1) an initial placement of 2,000 to 6,000 cubic yards of sand on the east side of Avila Beach; and (2) up to four future augmentations during the 1996-1997 winter storm season if the initial enhanced volume is redistributed and less than four feet of clean sand covers the hydrocarbon plume. In all cases, the actual sand volume that will be placed on the beach will depend on the state of the beach at the time the sand is placed. Monthly beach profiles and profiles surveyed immediately after a storm will be used to compute the quantity of sand needed. Each augmentation will take five days to complete.

Table 1 (page 3) summarizes project-related significant issues, potential impacts and the mitigation measures and conditions that Unocal will implement to avoid, or reduce to insignificance, any impacts. The staff believes the project, as proposed and conditioned, is consistent with Coastal Act policies. The staff recommends <u>approval</u> of the project as conditioned.

Table 1. Issue Summary: Potential Impacts and Propose

Significant Issue Area	Proposed Special Conditions	
Marine Resources	Issue: The project could potentially disturb grunion spawning activities at Avila Beach.	
	Mitigation Measure:	
	• Special Condition 2 requires the project site to be monitored by a professional biologist, approved by the executive director, if any sand augmentation activities are conducted during the grunion spawning season (March 1 - September 1). If grunion are observed, all sand augmentation activities shall cease during any forecasted four-day grunion spawning period, and if eggs are found, all activities on the beach shall cease until the grunion eggs have hatched.	
	Issue: If the grain size of imported sand is significantly coarser or finer than existing Avila Beach sand, natural processes at the beach could be modified either in making it more resistant to erosion or increasing the rate of erosion. An increase in nearshore turbidity caused by finer grain sand reduces the ability of sight feeding birds to catch food and reduces light penetration needed for photosynthesis by marine vegetation.	
	Mitigation Measures:	
	• Special Condition 3 requires Unocal to analyze the sand sources and existing Avila Beach sand for grain size distribution, and determine overfill ratios for each sand source, prior to each sand augmentation. No sand source shall be used if the overfill ratio is greater than 1.2.	
	Issue: Imported sand could be contaminated with organic and inorganic compounds.	
	Mitigation Measure:	
	• Special Condition 4 requires Unocal to test for organic and inorganic compounds prior to each augmentation. All source material shall meet standards set in the US EPA and US ACOE testing manual for dredged materials.	
Public Access/	Issue: The east side of Avila Beach will be closed during each augmentation.	
Recreation	Mitigation Measures:	
	• Special Condition 5 requires that all sand spreading be carried out on weekdays only. Special Condition 6 requires Unocal to maintain public access along Avila Beach at all times during sand spreading activities. Special Condition 7 requires Unocal prior to each augmentation to post notices along Avila Beach informing beach users of the project.	

1.0 STAFF RECOMMENDATION

Approval With Conditions

The staff recommends that the Commission adopt the following resolution:

The Coastal Commission hereby **grants** permit E-96-22, subject to the conditions below, for the proposed development on the grounds that (1) as conditioned the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976 and (2) there are no feasible alternatives or feasible mitigation measures available, other than those specified in this permit, which would substantially lessen any significant adverse impact which the activity may have on the environment.

2.0 STANDARD CONDITIONS See Appendix B.

3.0 SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

- This permit authorizes a maximum of five sand augmentations consisting of up to 6,000 cubic yards of sand each at Avila Beach to occur on or before (but not after) April 15, 1997. In the event Unocal seeks a time extension and/or more than five sand augmentations, Unocal shall apply for and obtain an amendment to this coastal development permit.
- 2. If any sand augmentation operations are conducted during the California grunion spawning season (March 1-September 1), the project site shall be monitored by a professional biologist, approved by the executive director, to determine if grunion runs are occurring. If grunion runs are observed, Unocal shall cease all sand spreading operations during any forecasted four-day grunion spawning period, and if eggs are found, all activities on the beach shall cease until grunion eggs have hatched.
- 3. Prior to each sand augmentation, Unocal shall analyze the sand sources and three samples from existing Avila Beach sand for grain size distribution (ASTM D 422-63, with the expanded sieve nest defined in the U.S. Army Corps of Engineers' "Requirements for Sampling, Testing and Data Analysis of Dredged Material", or equivalent method) and determine overfill ratios for each sand source (U.S. Army Corps of Engineers' 1984 Shore Protection Manual method, or equivalent method). No sand source shall be used if the overfill ratio is greater than 1.2.
- 4. Prior to each sand augmentation, Unocal shall analyze (a) all sand sources for volatile organic compounds (EPA Method 8240 or equivalent method), semi-volatile organic compounds (EPA Method 8270 or equivalent method), heavy metals by inductively

coupled plasma spectroscopy (EPA Method 6010 series or equivalent method), pH (EPA Method 9040 or equivalent method), sulfides (EPA Method 9031 or equivalent method) and cyanides (EPA Methods 9010 or 9012 or equivalent methods) using a State-certified laboratory; and (b) three samples from existing Avila Beach sand to establish natural background levels using the same methods described above. All source material shall meet the standards set in the U.S. Environmental Protection Agency/U.S. Army Corps of Engineers' "Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual."

- 5. All sand spreading operations shall be performed during weekdays only.
- 6. Unocal shall maintain public access along Avila Beach at all times during sand spreading operations.
- 7. Prior to each sand augmentation, Unocal shall post bilingual notices (English and Spanish) along Avila Beach to inform beach users of the proposed project, location, anticipated time schedule and appropriate safety concerns. The notices shall include a map which shows the area of the beach that will be closed during project operations.

4.0 FINDINGS AND DECLARATIONS

The Commission finds and declares as follows:

4.1 **Project Background**

Petroleum hydrocarbon storage and transfer operations have been conducted in the Avila Beach area since the early 1900's. Gasoline, diesel, gas oil and crude oil are pumped between Unocal's tank farm and its marine terminal through a network of underground pipelines that run beneath Front Street and Avila Beach Drive.

In 1989, hydrocarbon contamination in Avila Beach's soil and groundwater was discovered during a routine geotechnical survey for a commercial building permit. Subsequent subsurface investigations revealed hydrocarbon contamination underlying five square blocks of the town of Avila Beach. The site assessment revealed the presence of gasoline, diesel and crude oil hydrocarbons within the soil and groundwater along and near Front Street and under the sandy beach. According to Unocal, the pipelines that caused the leaks have been repaired or removed from service. A 1991 Unocal site assessment estimates that approximately 15,000 gallons of diesel and 7,000 gallons of gasoline contaminate soil and groundwater within a five square block of Avila Beach. However, recent site characterization activities suggest that the amount and areal extent of the contamination is much greater than estimated in 1991.

On October 13, 1995, the San Luis Obispo County Health Agency issued to Unocal a declaration of "imminent threat" to public health and safety resulting from the potential exposure during the winter storm season of the underground petroleum hydrocarbon contamination near the mouth of

the San Luis Creek. Beach survey data showed that as little as 2.5 feet of clean sand covered the underground contamination at this location.

On October 19, 1995, the Regional Water Quality Control Board, Central Coast Region, ("RWQCB") issued to Unocal Cleanup or Abatement Order No. 95-89 which required Unocal to proceed immediately with soil and groundwater remediation activities at the west end of Avila Beach.

On November 13, 1995, the executive director of the Coastal Commission issued to Unocal emergency permit E-95-16-G to remediate the underground plume of petroleum hydrocarbons at the west end of Avila Beach adjacent to San Luis Creek. Emergency permit E-95-16-G addressed only that portion of soil and groundwater contamination which posed an "imminent threat" of release if exposed by winter storm events. Unocal excavated 5,000 cubic yards of contaminated sand and backfilled the excavation area with clean imported sand.

Special Condition 15 of emergency permit E-95-16-G requires Unocal to conduct ongoing monthly beach cross surveys to determine the level and thickness of sand over the remaining plume on the beach. In the event that sand cover is reduced below four feet, Unocal is to import and spread sand over the plume to increase the depth cover to a minimum of four feet.

The results of Unocal's April 1996 survey showed that certain sections of the east side of Avila Beach had less than four feet of sand cover. On August 27, 1996, the RWQCB issued Cleanup or Abatement Order 96-42 directing Unocal to implement by November 15, 1996, an **interim** plan to reduce the risk of releasing petroleum hydrocarbons to the marine environment during the winter of 1996-1997 (Exhibit 4). The RWQCB has also ordered Unocal to prepare a **long-term** cleanup plan to eliminate the risk of releasing to marine waters petroleum hydrocarbons located beneath Avila Beach.

The proposed sand importation project is Unocal's proposal to satisfy both the RWQCB's order to implement an interim containment plan and Special Condition 15 of emergency permit E-95-16-G.

Unocal would prefer, as an alternative to the proposed sand importation project, to exercise the Port San Luis Harbor District's existing dredging permits, which allow for the disposal of dredged material at Avila Beach.¹ Rather than import sand from an inland source, Unocal would use dredged sand from the port. However, in the event that (1) Unocal is unable to exercise the Port San Luis Harbor District's dredging permits; (2) the dredged material is found to be contaminated with organic or inorganic compounds; and/or (3) adverse weather conditions prevent dredging from occurring, Unocal is seeking a coastal development permit to import sand from an outside source.

In 1993, the Coastal Commission issued to the Port San Luis Harbor District coasta! development permit 3-93-27 that authorizes until 1998 the dredging of up to 30,000 cubic yards of material per year. Avila Beach is one of three approved disposal sites.

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4.2 Project Description

Union Oil Company of California ("Unocal") proposes to import and spread sand on the east side of Avila Beach in San Luis Obispo County during the 1996-1997 winter storm season (Exhibits 1, 2 and 3). The purpose of the sand augmentation project is to reduce the probability of winter storms eroding the present sand cover and exposing an underground petroleum hydrocarbon plume. A portion of the plume in the augmentation area, located between the Pacific Ocean shoreline and Front Street just east of the Avila Beach Pier, presently has less than four feet of clean sand cover.

The proposed sand importation project is an **interim** measure to prevent exposure of the petroleum hydrocarbon plume during the 1996-1997 winter storm season. The RWQCB has also ordered Unocal to prepare a cleanup plan to eliminate the risk of a release to marine waters of petroleum hydrocarbons beneath Avila Beach.

The proposed sand importation project has two components: (1) an initial placement of 2,000 to 6,000 cubic yards of sand on the east side of Avila Beach; and (2) up to four future augmentations during the 1996-1997 winter storm season if the initial enhanced volume is redistributed such that less than four feet of clean sand covers the hydrocarbon plume. The volume of follow-up placement will be in the 2,000 to 6,000 cubic yard range. In all cases, the actual sand volume that will be placed on the beach will depend on the state of the beach at the time the sand is placed. Monthly beach profiles and profiles surveyed immediately after a storm will be used to compute the quantity of sand needed. The affected beach area will extend from the middle intertidal (+1 feet MLLW) to the supratidal zone. Each augmentation will take five days to complete. Consistent with the applicant's project description, **Special Condition 1** of this permit authorizes a maximum of five sand augmentations consisting of up to 6,000 cubic yards of sand to occur on or before (but not after) April 15, 1997.

Two sources of sand have been identified: Coastal Rock in Santa Maria and Gordon Sand in Guadalupe. Both of these locations have existing quarries that mine sand from the Santa Maria River Basin. Unocal proposes to transport sand from one or each of these sources using 18 cubic yard tandem trucks. The sand is to be delivered at night, Sunday through Thursday, between the hours of 7:00 p.m. and 6:00 a.m. to minimize disruption to merchants and beachgoers. For each augmentation, between 55 and 85 truck trips will be required. The sand will be dumped over the seawall, by temporary chute or hopper or electric conveyor belt, onto the beach east of the Avila Beach Pier. The sand will be spread on the beach using a bulldozer.

When not in use the equipment will be stored at one of two staging areas, either beside the concrete ramp near the intersection of San Juan and Front Streets or next to the base of Avila Beach Pier (Exhibit 2). Both areas are located above the mean high tide line (7.2 feet) and are used by the Port San Luis Harbor District for its beach maintenance activities.

4.3 Other Agency Actions

4.3.1 County of San Luis Obispo

The County of San Luis Obispo is serving as the "lead agency" under the California Environmental Quality Act ("CEQA") for the purpose of preparing an environmental impact report ("EIR") for an overall Avila Beach Remediation Project. Arthur D Little, the EIR consultant hired by the County, prepared a Special Environmental Study evaluating Unocal's proposed sand importation project. The Special Environmental Study will be incorporated into the overall EIR.

The sand importation project requires a minor use permit ("MUP") from the County. Since the County will not act on the MUP application until after the EIR is certified, it requested by letter dated October 10, 1996 that the Commission take action on the subject application prior to County permit approval (Exhibit 5). The executive director agreed to exercise his authority under 14 CCR § 13053 to waive any requirement that local approvals be obtained from the County before the Commission considers Unocal's application for the sand importation project.

4.3.2 Regional Water Quality Control Board - Central Coast Region

On August 27, 1996, the California Regional Water Quality Control Board - Central Coast Region ("RWQCB") issued Cleanup or Abatement Order No. 96-42 directing Unocal to implement a plan by November 15, 1996 to reduce the risk of releasing to the marine environment during the winter of 1996-1997 petroleum hydrocarbons located beneath the beach (Exhibit 4). The RWQCB states that the "existing plume under the beach has caused or threatens to cause a condition of pollution and nuisance." The RWQCB also ordered Unocal to prepare a long-term cleanup plan by November 4, 1996 for eliminating the risk of releasing to the marine environment petroleum hydrocarbons located beneath the beach.

4.4 Coastal Act Issues

4.4.1 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, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored....

The purpose of the proposed sand importation project is to prevent a release to marine waters of hydrocarbons during the next winter storm season. To not carry out the project means that the biological productivity and quality of coastal waters could be significantly harmed if winter storm events erode the beach and expose the underground petroleum hydrocarbon plume. However, the delivery and spreading of sand on the beach may result in adverse impacts to marine resources and marine water quality. These potential impacts are discussed below.

4.4.1.1 Grunion and other Beach Organisms

The placement and grading of sand on Avila Beach will result in displacement of the supratidal and intertidal habitat and cause destruction to organisms such as sand crabs (*Emerita analoga*), beach hoppers (*Megalorshestia* sp.) and other intertidal macrofauna and meiofauna. Tidal fauna may be affected by increased turbidity or physically damaged by operations equipment. However, the Special Environmental Study for the proposed project concludes that the impacts will be localized and temporary; recovery of these populations is expected to be rapid.

Grunion (*Leuresthes tenuis*) spawning activities have been reported at the Avila Beach. The periods when the grunion lay their eggs are called grunion runs, since the grunion come ashore in masses. From late February to early September, spawning activity occurs only on the second, third and fourth nights following the peak tides of the 14-day lunar cycle, when the tides that follow will be lower than those the night before. The grunion are washed onto the beach by the waves. Between breakers, the female grunion digs a vertical burrow in the wet sand and deposits a mass of 1,000 to 3,000 eggs.

Since the sand importation project may be carried out during part of the grunion spawning season, it could potentially disturb grunion spawning activities. The Commission is thus requiring in **Special Condition 2** that if any sand augmentation activities are conducted during the California grunion spawning season (March 1 - September 1) the project shall be monitored by a professional biologist to determine if grunion runs are occurring. If grunion runs are observed, all sand augmentation activities shall cease during any forecasted four-day grunion spawning period, and if eggs are found, all activities on the beach shall cease until the grunion eggs have hatched.

The Commission therefore finds that the proposed project, in combination with Special Condition 2, is consistent with Coastal Act section 30230 which requires that uses of the marine environment be carried out in a manner that will "... maintain healthy populations of all species of marine organisms."

4.4.1.2 Sand Grain Size Distribution

Most beach material is a mix of many different size grains ranging from very small silt particles to large, coarse grains of sand or gravel. The distribution of the different grain sizes making up the general beach material influences the steepness of the beach and the amount and type of material which is carried offshore by wave action. If most of the natural beach material is very coarse, the beach face will be fairly steep and resistant to erosion. If the beach material is very fine, the beach face will be gentle and there will be a lot of material offshore. During a large storm event or period of wave attack on a beach with fine grain material, one would expect to see high turbidity and significant transport of the finer material offshore.

Beach nourishment or sand augmentation projects generally work best if the added material is similar to the existing beach material. If the added beach material is significantly coarser than the natural beach material, the new beach will develop a steeper beach face and may be more resistant to wave erosion. If the added material is significantly finer than the native material, the new beach may develop a gentler face, and a larger amount of material will be carried offshore. Augmentation with incompatible material can modify the natural processes at a beach -- either in making it more resistant to erosion or adding to the quantity of material which will be carried offshore. The increase in offshore transport of fine material can also cause or exacerbate nearshore water quality problems, causing (1) an increase in nearshore turbidity reducing the ability of sight feeding birds to catch food and reducing the light penetration needed for photosynthesis by marine vegetation; and (2) an increase in the offshore sediment loads, possibly clogging or smothering offshore reefs and other hard bottom habitat.

One technique for reducing the potential for problems during beach nourishment or sand augmentation is to use material with a similar grain size distribution -- material which has the same proportion, by weight, of clay, silt, fine sand, medium sand, coarse sand, gravel, etc. If the general distributions of grain sizes are the same, one unit of new material can be assumed to function in a way similar to one unit of existing material. Beach nourishment projects typically refer to the distribution comparison as the overfill ratio -- the amount of material necessary to function on the beach like one unit of existing material. If the overfill ratio is greater than one, the new material will contain more fine grains than the existing material, more than one unit of new material will be required to replicate the function of one unit of existing material and more of the new material can be expected to be carried offshore.

The Commission is therefore requiring in **Special Condition 3** that prior to each sand augmentation Unocal analyze the sand sources and existing Avila Beach sand for grain size distribution and determine overfill ratios for each sand source. No sand source shall be used if the overfill ratio is greater than 1.2.

The Commission therefore finds that the proposed project, in combination with Special Condition 3, is consistent with Coastal Act section 30230 which requires that uses of the marine environment be carried out in a manner that will "... maintain healthy populations of all species

of organisms...." The Commission also finds the project, as conditioned, consistent with Coastal Act section 30231 which requires that the biological productivity and quality of coastal waters be maintained.

4.4.1.3 Testing Sand Sources for Organic and Inorganic Compounds

An important issue concerning surface and groundwater quality is the quality of the sand deposited on the beach. Sand imported from outside quarries could be contaminated with organic and inorganic compounds. Substantial interaction and exchange between marine waters and deposited sand is likely to occur during or immediately after augmentation. The footprint of sand augmentation potentially extends to 2.7 feet (MLLW). Tidal heights of 6.2 feet (MLLW) are expected during the winter season. Consequently, as much as 3.5 feet vertically and about 4,000 square feet of sand fill will be inundated by marine waters during or immediately after augmentation due to astronomical tides alone. To ensure that the imported sand is "clean," the Commission is requiring in **Special Condition 4** that prior to each augmentation Unocal analyze the sand sources for organic and inorganic compounds. All source material shall meet the standards set in the U.S. Environmental Protection Agency/U.S. Army Corps of Engineers' "Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual." These testing procedures are used routinely to determine the suitability of sediments for beach replenishment. Although designed to test dredge materials, the testing procedures are equally suitable for inland, excavated sediments.

The Commission therefore finds the proposed project, in combination with Special Condition 4, consistent with Coastal Act sections 30230 and 30231 which require that the biological productivity and quality of coastal waters be maintained.

4.4.1.4 Conclusion

The proposed project, in combination with Special Conditions 2, 3 and 4 of this permit, will reduce potential impacts to marine water quality and marine resources during project operations. The Commission therefore finds the project consistent with Coastal Act sections 30230 and 30231.

4.4.2 Filling of Coastal Waters

Coastal Act section 30108.2 defines "fill" as:

"Fill" means earth or any other substance or material, including pilings placed for purposes of erecting structures thereon, placed in a submerged area.

The proposed sand importation project includes the placement at Avila Beach of approximately 800 cubic yards of sand below the mean high tide line during each augmentation. As such, the placement of imported sand within the intertidal zone constitutes "fill" within the meaning of Coastal Act section 30108.2.



Coastal Act section 30233 states in part:

- (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:
- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
- (3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 304ll, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.
- (4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
- (5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
- (6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
- (7) Restoration purposes.
- (8) Nature study, aquaculture, or similar resource dependent activities.

Coastal Act section 30233(a) prohibits the Commission from authorizing a project that includes open coastal water fill unless it meets the "allowable use" test. To meet this test the activity must fit into one of eight categories of uses permitted for open coastal water fill enumerated in Coastal Act section 30233(a)(1)-(8).

The express purpose of the proposed sand importation project is to prevent an oil release into marine waters from occurring. The project is not intended for beach replenishment or enhancement. Increasing the thickness of sand cover for the purpose of preventing an oil release is not mentioned as an allowable use under Coastal Act section 30233(a). Therefore, the proposed project is inconsistent with the requirements of section 30233(a).

Nevertheless, the project can be found consistent with the Coastal Act under the "conflict resolution" section of the Coastal Act for the reasons discussed in the next section of this report.

4.4.3 Conflict Resolution

Coastal Act section 30007.5 provides:

The Legislature further finds and recognizes that conflicts may occur between one or more policies of this division. The Legislature therefore declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance us the most protective of significant coastal resources. In this context, the Legislature declares that broader policies which, for example, serve to concentrate development in close proximity to urban and employment centers may be more protective, overall, than specific wildlife habitat and other similar resource policies.

The Commission found in section 4.4.2 of this report that the proposed sand importation project does not meet the "allowable use" test of Coastal Act section 30233(a). Unocal estimates that approximately 800 cubic yards of imported sand will be placed below the mean high tide line during each augmentation. To allow the placement of fill in open coastal waters, the activity must fit into one of eight categories of uses permitted for open ocean fill. Increasing the thickness of sand cover at Avila Beach for the purpose of preventing a hydrocarbon release into marine waters is not one of the eight enumerated uses and therefore the project is inconsistent with Coastal Act section 30233(a).

However, to not approve this project may result in the release of hydrocarbons into marine waters if winter storm events erode the beach and expose the underground hydrocarbon plume. Such an oil release could have significant adverse impacts to marine resources and water quality and conflict with Coastal Act sections 30230 and 30231 which require that the biological productivity and quality of coastal waters be maintained.

For these reasons, the Commission finds, pursuant to section 30007.5 that, on balance, it is more protective of coastal resources to resolve this conflict by approving the project and allowing 800 to 4,000 cubic yards of open ocean fill. The Commission therefore concludes, based on section 30007.5, that the project is consistent with the Coastal Act.

4.4.4 Public Access/Recreation

Coastal Act section 302ll states:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Coastal Act section 30220 states:

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Avila Beach is one of San Luis Obispo County's main recreation/tourist areas. Avila Beach State Park is considered one of the best swimming beaches in the County. According to the County's Land Use Element and Local Coastal Plan for the San Luis Bay Planning Area, Avila Beach has over one million visitors annually. The town provides low-cost recreational opportunities for visitors, as well as residents, due to beach picnic facilities and free parking along Front Street.

The proposed sand importation project has the potential to impact beach users. Each sand augmentation project will result in the closure of a large portion of Avila Beach east of the Avila Beach Pier for each five-day construction period. Any impacts to beach users will be minimal, however, since the project will be carried out only during the 1996-1997 winter months - the non-peak beach season (Special Condition 1). The Commission is also requiring in Special Condition 5 that all sand spreading activities be carried out during weekdays only so that the entire beach will be open on the weekends for full recreational use of the beach. Special Condition 6 requires Unocal to maintain public access along Avila Beach at all times during sand spreading operations. In addition, the Commission requires Unocal in Special Condition 7 to post bilingual notices (English and Spanish) along Avila Beach to inform beach users of the proposed project, location, anticipated time schedule and appropriate safety concerns before each sand augmentation.

The Commission thus finds that the proposed project, as conditioned, will have minimal impact to Avila Beach users and is therefore consistent with Coastal Act sections 30211 and 30220.

4.4.5 Visual Resources

Coastal Act section 30251 states in part:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of

natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas....

San Luis Bay is characterized by a variety of highly scenic features and includes well known landmarks such as Avila Beach, Port San Luis and Mallagh Landing. Avila Beach contains high density residential and commercial development. Port San Luis provides small scale harbor facilities. Located above Avila Beach to the east is the Unocal tank farm which supplies petroleum products to the Unocal pier and marine terminal. These tanks are clearly visible from the proposed project area.

The proposed sand importation project involves transporting and spreading sand on Avila Beach. Since Unocal proposes transporting the sand to Avila Beach at night, the visual impact of trucking sand during the five-day construction project is negligible. Similarly, any adverse impact to the viewshed from bulldozers spreading sand on the beach will be short-term and insignificant. The project will be carried out only during the winter months (Special Condition 1) when there are fewer beachgoers at Avila Beach. Increased sand levels on the beach is a longer term visual impact. The sand level on the east side of the beach will be increased by a level up to six feet. This change in beach profile, however, is within the normally expected historical sand placement by wave action.

Since the proposed project will have minimal impact on the viewshed, the Commission finds the project consistent with Coastal Act section 30251.

4.4.6 Air Quality

Coastal Act section 30253(3) states:

New development shall be consistent with requirements imposed by the air pollution control district or the State Air Resources Control Board as to each particular development.

The proposed project will generate air emissions primarily due to the operation of the sand transportation trucks, front loaders, and bulldozers. Project emissions are estimated to be 0.2 tons of nitrogen oxides (No_x), 0.04 tons reactive organic compounds (ROC), and 0.3 tons of particulates (PM_{10}) for each augmentation. The No_x and ROC emissions are primarily due to emissions from the sand transportation trucks. Particulate emission are dominated by fugitive dust generated from truck loading and grading activities.

The San Luis Obispo Air Pollution Control District (APCD) is the local air pollution control district responsible for implementing federal and state air quality standards in the project area. Since the project will not result in the exposure of contaminated sand or involve an emissions device other than construction equipment, the APCD is not requiring any air permits for the proposed project.

Since the proposed project is consistent with San Luis Obispo APCD rules and regulations, the Commission finds the project consistent with Coastal Act section 30253(3).

4.5 California Environmental Quality Act

As "lead agency" under the California Environmental Quality Act ("CEQA"), the County of San Luis Obispo is in the process of preparing an environmental impact report ("EIR") for Unocal's overall Avila Beach remediation project. In October 1996, Arthur D. Little, San Luis Obispo County's consultant hired to prepare the EIR, released a Special Environmental Study evaluating the impacts of the sand importation project. The Special Environmental Study will be incorporated into the overall project EIR.

The Commission's permit process has also been designated by the State Resources Agency as the functional equivalent of the CEQA environmental impact review process. Pursuant to section 21080.5(d)(2)(i) of the CEQA and section 15252(b)(1) of Title 14, California Code of Regulations (CCR), the Commission may not approve a development project "if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment." The Commission finds that there are no feasible less environmentally damaging alternatives or additional feasible mitigation measures that would substantially lessen any significant adverse impact which the environment, other than those identified herein. Therefore, the Commission finds that the project is consistent with the provisions of the CEQA.

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Appendix A

Substantive File Documents

Coastal Development Permit Application E-96-22.

Emergency Coastal Development Permit E-95-16-G.

California Regional Water Quality Control Board Central Coast Region Cleanup or Abatement Order No. 96-42.

Unocal Avila Beach Interim Sand Augmentation Project - Special Environmental Study, prepared by Arthur D. Little, October 14, 1996.

Appendix B

Standard Conditions

- 1. <u>Notice of Receipt and Acknowledgment</u>. The permit is not valid and development shall not commence until a copy of the permit, signed by the permitee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
- 2. <u>Expiration</u>. 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 a permit must be made prior to the expiration date.
- 3. <u>Compliance</u>. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions as set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
- 4. <u>Interpretation</u>. Any question of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
- 5. <u>Inspections.</u> The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.
- 6. <u>Assignment.</u> The permit may be assigned to any qualified person, provided the assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
- 7. <u>Terms and Conditions Run with the Land</u>. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permitee to bind all future owners and possessors of the subject property to the terms and conditions.









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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL COAST REGION 81 Higuera Street, Suite 200 San Luis Obispo, California 93401-5427

CLEANUP OR ABATEMENT ORDER NO. 96-42

Concerning

UNOCAL CORPORATION PETROLEUM PRODUCT LEAKS IN AVILA BEACH

SAN LUIS OBISPO COUNTY

The California Regional Water Quality Control Board, Central Coast Region (hereafter Board), finds:

- UNOCAL Corporation (hereafter Unocal) has discharged crude oil, diesel, and gasoline to soils (see approximate location on Attachment A) and ground water (see approximate location on Attachment B) beneath the beach, roads, commercial and residential properties of Avila Beach. The discharges were reportedly caused by leaks from Unocal's pipelines. There are no known active leaks in any existing pipelines in the area. Delineation of the vertical and lateral extent of Unocal's discharges has not been completed.
- 2. Discharge of petroleum and its chemical constituents into waters of the State is a violation of a prohibition contained in the Water Quality Control Plan, Central Coast Region (hereafter Basin Plan). The discharge of crude oil, diesel, and gasoline to soils and ground water by Unocal has created, or threatens to create, a condition of pollution in groundwater, the ocean and San Luis Obispo Creek Estuary and nuisance in the Community of Avila Beach.
- 3. On September 26, 1995, Unocal informed Board staff the sand covering a portion of the petroleum waste plume that was located on the beach at the western end of Front Street was being eroded. Exposure of petroleum

hydrocarbon waste to humans and the environment was imminent, including a threatened discharge to the ocean. This sand loss was due to 1995 winter storm events along with subsequent tidal and river current actions. On October 19, 1995, the Executive Officer issued Cleanup or Abatement Order (CAO) No. 95-89 requiring Unocal to remediate degraded soil and polluted ground water in the area of imminent exposure. CAO No. 95-89 was exempt from the California Environmental Quality Act (CEQA) because the project was an emergency. During December 1995, and January 1996, Unocal remediated soil and ground water (by removing floating petroleum hydrocarbons from the excavation, and introduction of nutrients and an oxygen releasing compound into the bottom of the excavation prior to backfilling) in this portion of the beach area seaward of Front Street.

4. At the March 22, 1996 Board meeting, Unocal reported its opinion that exposure of the remaining hydrocarbon plume under the beach was foreseeable. Staff reported their opinion that the risk of exposure was higher than Unocal's estimate. Unocal reported that it was evaluating alternatives to prevent this exposure and that it would propose interim and long-term approaches. The existing plume under the beach has caused or threatens to cause a condition of pollution and nuisance. Exposure of the waste will increase the risk of discharge

EXHIBIT NO. 4 APPLICATION NO.

E**-96-22**

CAO NO. 96-42

to the ocean and other surface water and increase the condition of nuisance.

- 5. On July 1, 1996, Unocal submitted a report titled "Draft Alternatives Analysis and Proposed Remedial Action, Avila Beach Site." On July 26, 1996, Arthur D. Little (consultant to San Luis Obispo County) submitted a report titled "Results of the Field Investigation Conducted to Assess the Extent of Contamination at Avila Beach."
- 6. The Arthur D. Little report recommends additional areas for investigation.
- 7. Pursuant to the Basin Plan, the present and potential beneficial uses (hereafter Uses) of ground water beneath the Community of Avila Beach include domestic and municipal supply, agricultural supply, and industrial supply. The Uses in San Luis Obispo Creek Estuary include ground water recharge; water contact recreation (REC-1); non-contact water recreation (REC-2); wildlife habitat (WILD); cold and warm fresh water habitat; migration of aquatic organisms, reproduction. and/or spawning. early development; preservation of biological habitats of special significance; rare, threatened and endangered species (RARE); estuary habitat; and sport fishing (COM); commercial aquaculture; and shellfish harvesting (SHELL). The Uses of marine water along Avila Beach include: REC-1, REC-2, industrial service supply, navigation, marine habitat, SHELL, COM, RARE, and WILD.
- 8. Components of petroleum are hazardous and some create an increased risk of cancer if concentrations in drinking water exceed Maximum Contaminant Levels established by the United States Environmental Protection Agency or California Department of Health Services. Additionally, petroleum products make water unsuitable for use as drinking water due to adverse taste and odor and are toxic to aquatic biota.
- 9. Unocal's discharge of petroleum hydrocarbons at Avila Beach has degraded ground water in

excess of the ground water cleanup levels established by the Board on September 8, 1994 in CAO No. 94-85. The discharge has created an imminent exposure near the ocean shore and has degraded soils at levels for Total Petroleum Hydrocarbons which cause a condition of nuisance by obstructing the free use of property, so as to interfere with the comfortable enjoyment of property and affect at the same time an entire neighborhood or a considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.

- 10. State Water Resources Control Board Resolution No. 92-49 (as amended on April 21, 1994) (hereafter SWRCB Res. 92-49) requires that all actions for cleanup and abatement conform to the provisions of the State Water Resources Control Board Resolution No. 68-16 and to applicable provisions of Title 23 California Code of Regulations Chapter 15. (SWRCB Res. 92-49, Section III.F.1).
- 11. SWRCB Res. No. 92-49, Section III G. provides the Regional Board shall:

"Ensure that dischargers are required to cleanup and abate the effects of discharges in a manner that promotes attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible; in approving any alternative cleanup level less stringent than background, apply Section 2550.4 of Chapter 15..., any such alternative cleanup level shall:

1. Be consistent with maximum benefit to the people of the state;

8/27/96

CAO NO. 96-42

- 2. Not unreasonably affect present and anticipated beneficial use of such water;
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- 3. Not result in water quality less than that prescribed in the Water Quality Control Plans and Policies adopted by the State and Regional Water Boards."
- 12. The portion of this enforcement action requiring interim remedial action to reduce the

IT IS HEREBY ORDERED, pursuant to Sections 13267 and 13304 of the California Water Code, UNOCAL CORPORATION, its agents or assigns, shall comply with the following tasks and associated compliance dates:

TASK

Interim Beach Protection

- 1. Submit an interim plan for reducing the risk of releasing petroleum hydrocarbons located beneath the beach (east and west of Avila Beach pier) to the marine environment during the winter of 1996-97.
- Submit proof all applications for permits needed to implement the Task 1 interim plan have been received and deemed complete by the permitting agencies. Pay all fees required by permitting agencies necessary for permit issuance.
- 3. Implement the Task 1 interim plan for reducing the risk of releasing to the marine environment during the winter of 1996-97.

Beach Cleanup Plan and Implementation

4. Submit a cleanup plan for eliminating the risk of releasing to the marine environment petroleum hydrocarbons located beneath the beach (east and west of Avila Beach pier).

risk of imminent release of petroleum hydrocarbons is exempt from CEQA in accordance with Public Resources Code Section 21080 because it is an emergency. The non-emergency portion of this enforcement action involves only planning studies, which will not have a significant environmental effect and is therefore exempt from CEQA.

COMPLIANCE DATE

September 5, 1996

September 9, 1996

Commencing 30-days from the date all permits have been secured, and the Executive Officer has approved the plan, but not later than November 15, 1996.

November 4, 1996

-3-

CAO NO. 96-42

- 5. Submit proof all applications for permits needed to implement the Task 4 cleanup plan have been received and deemed complete by the permitting agencies. Pay all fees required by permitting agencies necessary for permit issuance.
- 6. Implement a cleanup plan for eliminating the risk of releasing petroleum hydrocarbons to the marine environment at Avila Beach.

Community-Wide Cleanup Plan and Implementation

7. Submit a final work plan to complete delineation of petroleum product degraded soils and ground water based on areas needing further delineation as described in Arthur D. Little's July 26, 1996 Report "Results of the Field Investigation Conducted To Assess The Extent of Contamination At Avila Beach," specifically Section 6.3, "Data Gaps Requiring Further Investigation."

- 8. Commence further delineation of degraded soils and ground water.
- 9. Complete delineation of degraded soils and ground water and submit a report documenting the results.
- 10. Commence Remediation project

All technical and monitoring reports required in conjunction with this Order are required pursuant to Sections 13267 and 13304 of the California Water Code. All work requiring engineering or geologic evaluations/judgments must be performed under the direction of, and signed and stamped by, an appropriately registered professional (e.g., Registered Civil Engineer or Registered Geologist) fully competent and proficient to do the work performed.

Failure to comply with the provisions of this Order may subject you to further enforcement action, including but not limited to, assessment of civil liability under sections 13268 and 13350 of the California Water Code and referral to the District Attorney or Attorney General for injunctive relief and civil or criminal liability.

ORDERED BY ______ Frequerive Officer

8-- 27- 94 Date

8/27/96

December 4, 1996

Commencing 30-days from the date all permits have been secured and the Regional Board has approved the plan

September 5, 1996

September 16, 1996

December 16, 1996

Within 14 days from Regional Board adoption of cleanup levels

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San Luis Obispo County DEPARTMENT OF PLANNING AND BUILDING

ALEX HINDS DIRECTOR BRYCE TINGLE

ASSISTANT DIRECTOR ELLEN CARROLL

BARNEY MCCAY CHIEF BUILDING OFFICIAL

ENVIRONMENTAL COORDINATOR

NORMA SALISBURY ADMINISTRATIVE SERVICES OFFICER

DECENTED

October 10, 1996

Alison Dettmer California Coastal Commission 45 Fremont Street, Suite 2000 San Francisco, CA 94105 CALIFORNIA COASTAL COMMISSION

Subject: Avila Beach Sand Augmentation - Import Project

Dear Alison:

The county has directed its consultant, Arthur D. Little, Inc., to complete revisions to a fast-tracked special study on Unocal's application to import sand to the eastern beach area of Avila Beach. The study is due in your office early next week in order for you staff to prepare for an upcoming hearing.

Due to time constraints caused by the upcoming winter storm season, this department encourages the Commission to take action on the Coastal Development Permit application prior to county permit approval. The county will hold its hearing at a later date. We see this fast-track process as being most protective of the marine environment.

Please feel free to contact me at (805) 781-5194 if you have any questions concerning this matter or wish to further discuss this issue.

Sincerely, John Euphrat

Principal Planner

EXHIBIT NO. 5	
APPLICATION NO.	
Е-96-22	