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Department of Toxic Substances Control

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NOTICE OF EXEMPTION

To: Office of Planning and Research
State Clearinghouse
P.O. Box 3044, 1400 Tenth Street,
Room 212
Sacramento, CA 95812-3044

From: Department of Toxic Substances Control
Northern California Permitting and
Corrective Action Branch
8800 Cal Center Drive
Sacramento, CA 95826

Project Title: Occidental of Elk Hills, Inc., 27R Hazardous Waste Trench – Post-Closure Permit Renewal

Project Location: About 27 miles west of Bakersfield, in the Elk Hills Oilfield

County: Kern County

Project Description: This project consists of renewing the Elk Hills, Inc., 27R Hazardous Waste Trench (27R Unit or Facility) Post-Closure Permit. No physical changes to the site are proposed. The Facility consists of a closed - covered Hazardous Waste Trench. Occidental Petroleum of Elk Hills, Inc. (OPEH) is the current owner. In December 31, 1997, Department of Toxic Substances Control (DTSC) approved a Post-Closure Permit for the facility. Under the conditions of the Post-Closure permit, state and federal regulations require that a postclosure plan for a 30 -year period be developed and implemented by the facility. The renewed Post-Closure Permit outlines the procedures to fulfill these regulatory requirements which consist of three primary functions: a) maintenance of the closure cover, b) environmental monitoring; and c) maintenance of financial mechanisms to fund the post-closure activities.

Background

Location, Usage, and History

The 27R Unit is located in the Elk Hills foothills along the western edge of the San Joaquin Valley. The Facility is located in a portion of the Elk Hills Oil Field formerly referred to as the Naval Petroleum Reserve No.1. The Facility occupies approximately 4.5 acres in the southeast corner of Section 27, T30S/R23E, Mount Diablo Base and Meridian. The nearest incorporated community is the City of Taft which is located approximately ten miles southwest of the site. Elk Hills Road is public road passes through Section 27 approximately one mile southeast of the site.

The 27R Unit consisted of a series of five adjacent surface impoundments or trenches that covered an area of 4.5 acres. Neutralized acids and tank bottom sludge were placed in these impoundments from 1980 through 1985. The 27R Unit is part of the 27R Waste Disposal Facility, the remainder of which is located in Section 27. Operations at the 27R Waste Disposal Facility began under Regional Water Quality Control Board, Waste Discharge Requirements (WDR) order No. 73-141 in 1975. The Facility was used to dispose of oil field wastes, primarily drilling muds and fluids. In 1980, in response to Resource Conservation and Recovery Act (RCRA) regulations, the Facility owner applied to the U.S. Environmental Protection Agency Region 9 (EPA) for a hazardous waste permit to dispose of tank bottoms and acids in the 4.5 acre cell at the Facility. EPA returned the application on the basis of the exemption clause in 40 CFR 261.4 which excluded certain wastes from oil exploration and production operations under federal regulations. State regulations do not exempt exploration and production operations and the State issued an Interim Status Document (ISD) to 27R Unit in 1981. The site operated under this ISD until operations

were suspended by the operator. A Closure Plan for the 27R Unit was submitted in 1986. This plan required the performance of a site characterization study which was completed in 1987. DTSC approved the closure plan in May 1991, approved a Post-closure permit on December 31, 1997, and has approved the renewal of this permit as part of this Notice of Exemption.

Groundwater

The results of a test hole (ICH-27R) drilled at the site in 1991 indicated that no free water was encountered to a total depth of 1,000 feet below grade. A prominent and consistent horizon of low permeable material called the Amnicola Clay underlies the area at a depth of 550 feet below the surface and attains a thickness of about 35 feet. Based on the core hole investigation and the determination that groundwater beneath the site is greater than 1000 feet, DTSC granted the 27R Unit a waiver from the groundwater monitoring provisions of Title 22, CCR, Div. 4.5, Articles 6 and 22 on May 7, 1991.

Air

In order to evaluate whether surface infiltration was occurring beneath the engineered clay cap, vadose zone monitoring system was installed that included 15 water content reflectometer probes (soil moisture probes) and 7 soil temperature probes at the site as required by DTSC. The current vadose zone monitoring system has been operating continuously at the 27R Unit since November 1998. Since this time, results of the monitoring have not identified infiltration of surface water through the engineered clay. As a result OPEH may, during the permit period, request DTSC to terminate the monitoring program. In the event OPEH elects to do so, they will provide a report justifying the termination to DTSC. In the event DTSC approves of terminating the vadose zone monitoring, the cessation of activities will occur without a permit modification, as this provision is identified in permit application. In the event DTSC does not approve of terminating the activities, vadose monitoring will continue as outlined in the permit application.

Project Activities

To renew the 27R Unit Post-closure Permit the following tasks were required:

- OPEH prepared a Final Post-closure Permit Application (renewal)
- DTSC reviewed the application and required changes as part of Notice of Deficiencies
- DTSC prepared a Draft Post-closure Permit
- The Draft Permit received a 30-day public comment period
- Permit approval

The Post-closure Permit includes three main requirements:

1. Regular inspection and maintenance of the cover and drainage systems (with corrective action as necessary);
2. Environmental monitoring, consisting of regular monitoring well inspection, sampling, and data statistical analysis; and,
3. Provisions of financial mechanisms to fund the post-closure activities for 30 years.

