

**Attachment 2  
Post-Closure Plan  
of Oily Waste Surface Impoundments**

POST-CLOSURE CARE  
OF THE  
OILY WASTE SURFACE IMPOUNDMENTS



EA ENGINEERING,  
SCIENCE, AND  
TECHNOLOGY, INC.

POST-CLOSURE CARE  
OF THE  
OILY WASTE SURFACE IMPOUNDMENTS

Prepared for  
Tosco Corporation  
Avon Refinery  
Martinez, California 94553

Prepared by  
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November 1985

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## 1. INTRODUCTION

This plan addresses the requirements for long-term post-closure care, monitoring, and maintenance in accordance with Title 22. The company-designated individual responsible for updating all copies of the Post-Closure Plan is the Senior Environmental Engineer for the facility.

### 1.1 POST-CLOSURE REQUIREMENTS

Post-closure care, monitoring, and maintenance for the oily waste surface impoundments will include the following:

- facility security,
- maintenance of the integrity and effectiveness of the final cover,
- maintenance of the groundwater monitoring systems,
- prevention of damage to the final cover from run-on and run-off, and
- provision and protection of benchmarks.

Inspections of the closed impoundments will be performed four times per year (i.e., quarterly) for the first year of the post-closure period. For the remainder of the post-closure care period, inspections will be conducted once every six months. The inspections will provide timely detection of erosion and identify any other necessary maintenance items before serious problems develop. These inspections will be performed by the refinery staff.

Figure 1 shows an inspection form typical of the form to be used for the post-closure inspections. The inspector will sign and date the form for each inspection. On the form, the inspector will describe the location and extent of any identified problems, as well as any necessary corrective actions. Following completion of the corrective action, the inspector will note the completion on the inspection form.

## 1.2 POST-CLOSURE PERIOD

Post-closure activities will be initiated following certification of closure. The post-closure care period will be 30 years beginning from the closure certification date.



## 2. PRIMARY CONTACTS

This subsection provides the contact listings for the post-closure period. The primary facility contact for questions regarding the post-closure care of the units is:

Duane B. Bordvick  
Environmental Affairs Manager  
Tosco Corporation, Avon Refinery  
Martinez, CA 94553  
(415) 228-1220

Over the 30-year post-closure period, it is reasonable to assume that the primary contact will change. During this period, any change in the facility contact will be reported to the Department of Health Services. As required, Tosco will submit appropriate updates to this plan to reflect this change.

### 2.1 OTHER FACILITY CONTACTS

Other facility contacts are as follows:

Gerald B. Faudel  
Environmental Programs Supervisor  
Tosco Corporation, Avon Refinery  
Martinez, CA 94553  
(415) 228-1220

or

Donald L. Comer  
Advanced Environmental Engineer  
Tosco Corporation, Avon Refinery  
Martinez, CA 94553  
(415) 228-1220

#### 4. BENCHMARKS

The locations of on-site facility benchmarks will be established from existing benchmarks located within the refinery. These facility benchmarks will be maintained through the end of the post-closure period.

## 5. LANDSCAPE MAINTENANCE

Maintenance will be performed as required to ensure that the facility is in compliance with design specifications and the requirements of 22 CAC, Sections 67217 and 67316.

Post-closure care of the surface impoundment area will ensure that the facility will be maintained in good repair and acceptable appearance. No trees, shrubs, or other deep-rooted plants will be allowed to grow on the closed units. Areas damaged by erosion will be repaired with the proper cover.

### 5.1 ROADWAYS

Roadways necessary for post-closure maintenance will be maintained in good repair. No roadways will be constructed over any final cover areas. The roadways will be maintained as necessary during inclement weather to provide access to all areas within the site. Tosco maintenance personnel will provide this service.

### 5.2 EROSION CONTROLS

Erosion control structures will be maintained during post-closure. Erosion damage will be repaired and corrected.

The facility will be inspected as described in Section 1 or after every major rainfall (approximately 2 inches per 8-hour period). Erosion or pooling of water will be corrected.

Erosion controls (slope/cover) will be monitored and maintained in accordance with the specifications in the approved closure plan.

The final cover will be maintained at the approximate slope described in the closure plan. Inspections of the final cover

will be conducted for erosion, pooling of water and visible damage. Slope and gradient will be checked when there is an apparent change due to erosion, settling, or subsidence. Repair procedures will begin immediately if any damage is found to the final cover. Soil for repairs will be available on-site and, if necessary, this material will be used to correct any problems.

No post-closure use of these areas is planned or requested. No heavy equipment or vehicles will be permitted on the final cover area unless involved in maintenance or repair activities.

### 5.3 RODENT CONTROL

Rodent control will be provided as needed. The facility will be monitored for evidence of rodents during normal inspection. Tosco will contract rodent control services from commercial contractors, as needed. Should contractors be required, they will be informed of potential hazards, and instructed not to disrupt cover materials, etc.

Any rodent damage to the final cover of the surface impoundment area will be repaired.

## 6. GROUND WATER MONITORING

### 6.1 GROUND WATER MONITORING WELLS

There are currently five monitoring wells (HC-11, HC-12, HC-13, 23M, and 26S) located around the oily waste surface impoundments. Well HC-11 is the upgradient well, with HC-12, HC-13, and 26S serving as downgradient wells. Well 23M is screened below the uppermost aquifer and thus has not been used during interim status. Well logs for these wells are included in Appendix C to the closure plan for the oily waste surface impoundments.

Tosco intends to replace these existing wells with four new wells which will be more appropriately designed for long-term monitoring of ground water around the closed impoundments. Figure 2 is an aerial photograph of the oily waste impoundment area showing the proposed locations of the new wells. Well MK-24a will be an upgradient background well. Wells MK-25a, 26a, and 27a will be downgradient wells. These wells will be installed as part of the closure activities. Well installation will begin when the final cover has been completed. Following installation of the new wells, the five existing monitoring wells will be abandoned by removing the well casings and backfilling the well bores with a cement/bentonite slurry. Figure 3 shows the typical construction details to be used for installation of the new monitoring wells.

### 6.2 GROUND WATER SAMPLING PROCEDURES

Prior to ground water sampling, the water within the casing will be purged so that formation water will enter the well and a representative sample can be collected. Four to five casing volumes of water will be purged from the wells. Three casing volumes represents the minimum U.S. Environmental Protection Agency (USEPA, 1985) recommended number of casing volumes needed to be purged prior to sampling high yield wells. If purging of

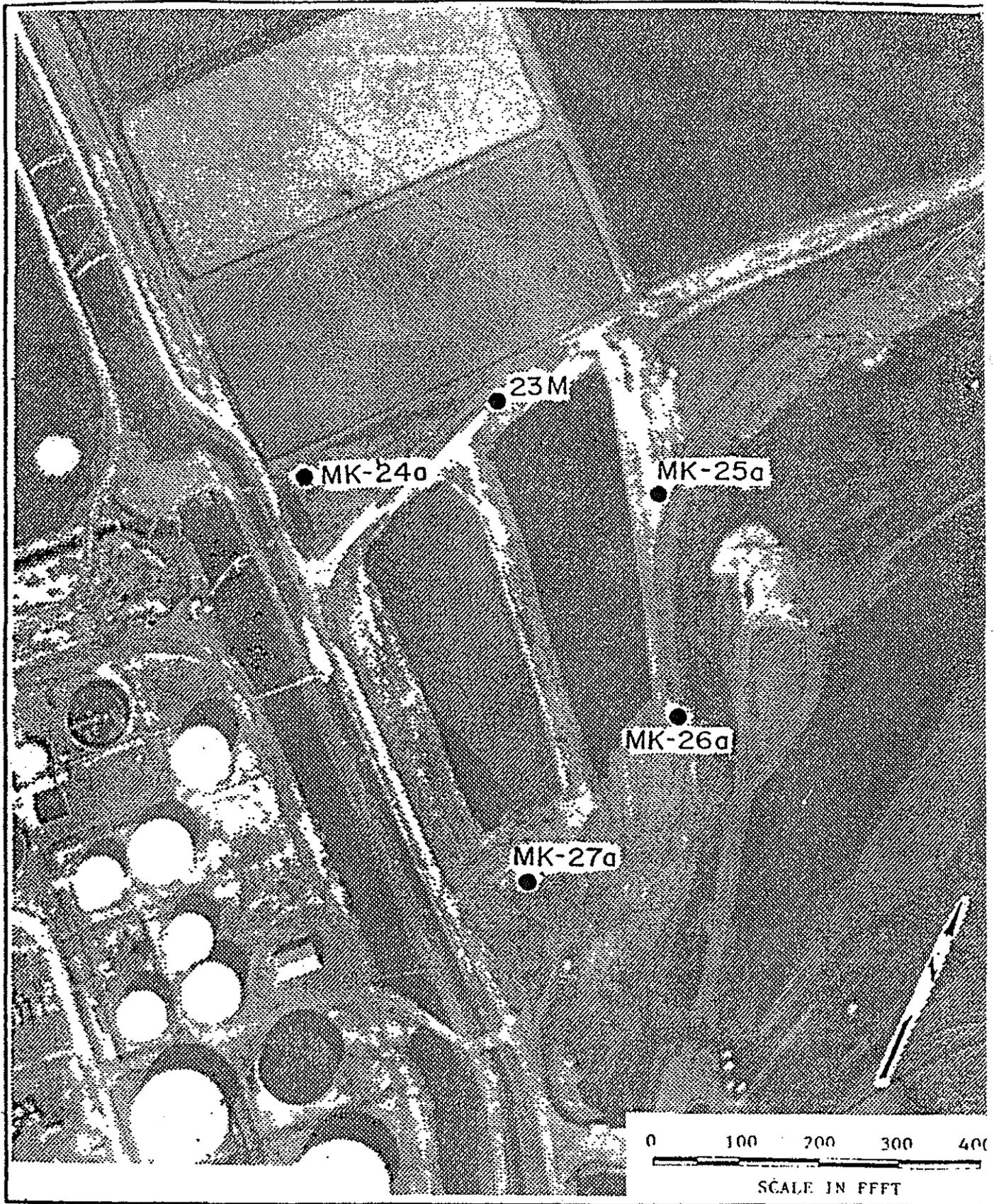


Figure 2. Aerial photograph of oily waste impoundments showing proposed locations of new wells.

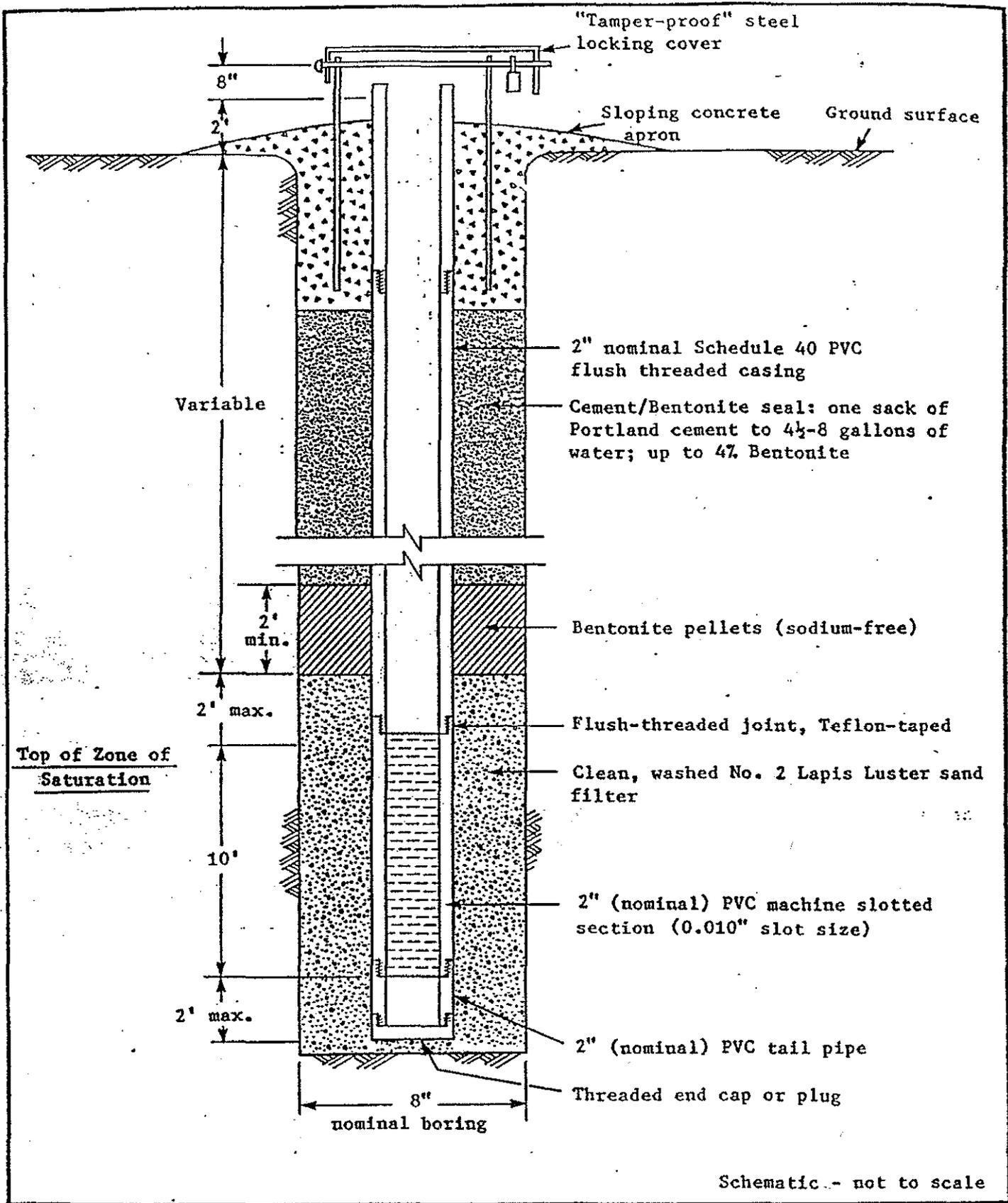


Figure 3. Typical construction details used for installation of new monitoring wells.

at least three casing volumes is not possible due to low yield of formation water to the well, the USEPA (1985) procedure of evacuation to dryness will be used for these wells.

The USEPA (1985) recommended ground water sampling protocols will be followed in sampling of the wells. Teflon bailers, bladder pumps, or similar equipment will be used to purge each well and obtain representative samples.

To avoid cross-contamination, the purging device will be thoroughly washed with Liquinox detergent, rinsed with distilled water followed by a bath of reagent-grade methanol and allowed to dry. After the methanol bath has completely dried, the bailer will be rinsed with distilled water once again before being used to purge water from the next well. Hemp or uncoated cotton rope will be used on the bailer for well purging, because these rope materials are least likely to contain organic residue that could interfere with the parameters being analyzed. After each well is purged, the rope used will be discarded to avoid cross-contamination.

Temperature, conductivity, and pH of the water will be recorded during the purging. These parameters will be recorded as each casing volume is removed until stabilization occurs. Observed stabilization of these parameters will indicate that a sufficient volume of water has been removed from the well prior to sampling and the sample collection sequence can be started.

If bladder pumps are used, temperature, conductivity, and pH measurements will be recorded during purging in a similar manner to that described for the Teflon bailer sample collection method.

All samples will be labeled at the sample collection location with the following information:

- sample location identification,

- sampler's name,
- date and time,
- type of preservative, and
- parameters to be analyzed.

See Figure 4 for a typical sample label. All samples will be accompanied by a chain-of-custody form (see Figure 5 for a typical form) to establish the necessary documentation to trace sample possession from the time of collection to the time of analysis. A field log book will also be used to record specific information regarding each sample.

### 6.3 GROUND WATER ANALYTICAL PROCEDURES

The analytical procedures to be used for analysis of the ground water samples will conform to methods outlined in the most recent edition of SW-846 (EPA). These parameters were chosen for use as indicator parameters since they are known constituents of the waste material in the impoundments. Benzene, toluene, and xylene are relatively mobile in groundwater and thus will serve as good indicators of organic compounds. The appropriate EPA procedures are listed in the following table.

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NAME AND ADDRESS OF ORGANIZATION COLLECTING SAMPLES

Person Collecting Sample \_\_\_\_\_ Sample No. \_\_\_\_\_  
(signature)

Date Collected \_\_\_\_\_ Time Collected \_\_\_\_\_

Place Collected \_\_\_\_\_

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Figure 4. Sample Label



GROUND WATER MONITORING PARAMETERS

<u>Parameter</u>	<u>EPA Method</u>	<u>Detection Limit(mg/l)</u>
Lead	239.1	0.1
Chromium	218.1	0.05
Benzene	624*	.002
Toluene	624*	.002
Xylene	624*	.005

\* A modified version of this method is used which is designed to measure only benzene, toluene, and xylenes.

#### 6.4 GROUND WATER SAMPLING SCHEDULE AND DATA EVALUATION

Following completion of the closure, groundwater samples will be obtained on a quarterly basis for the first year of the post-closure period. The first set of samples will be obtained within 30 days after the certification of closure. Then, for the remainder of the closure period, samples will be obtained every 6 months. The samples will be obtained and analyzed by the procedures specified in Sections 6.3 and 6.4.

Four replicate measurements of each sample will be performed. The analytical results from the downgradient wells will be compared to the background values to determine whether there has been a statistically significant increase over the background values. If this comparison indicates that an increase has occurred, the wells will be resampled immediately. Each sample will be split into two samples and each split sample will be analyzed for the parameter(s) for which a significant increase was noted.

If the results of the resampling verify the significant increase, Tosco will notify the Department of Health Services within seven days. Within 90 days following this notification, Tosco will either submit an application to modify the conditions of this post-closure plan or submit a report demonstrating that the closed impoundments are not the source of the increase.

#### 6.5 QUALITY CONTROL

In order to be assured that representative samples remain uncontaminated from outside sources and are truly representative of the ground water conditions, a quality control procedure will be implemented. This will consist of duplicate samples from one well for the complete parameter list. As a precaution against outside interference, sample blanks will accompany each sampling effort. The sample blank will be handled exactly as the ground water samples.

7. POST-CLOSURE COSTS  
(30 years of post-closure care)

Well Replacement<sup>1</sup>

Includes drilling, installation, and well development, \$3,000/well x 4 wells x 2 replacements/well	\$24,000
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Inspections

\$20/hr x 1 hr x 62 inspections	\$ 1,240
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Reestablish Cover and Vegetation

\$500/acre/year x 1.37 acres <sup>2</sup> x 30 years	\$ 20,550
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Fertilizing

\$100/acre/year x 1.37 acres x 30 years	\$ 4,110
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Ground Water Monitoring

\$1,400/well/year x 4 wells x 1 year	\$ 5,600
\$700/well/year x 4 wells x 29 years	\$ <u>81,200</u>

Subtotal	\$ <u>136,700</u>
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Total Closure and Post-Closure	\$349,170
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1 Assume each well will require replacement during the post-closure period

2 Total area of the final cover = 1.37 acres

## 8. FINANCIAL REQUIREMENTS

As discussed in the closure plan, a surety bond and/or a letter of credit will be maintained throughout the post-closure care period.

## 9. RECORDKEEPING

Recordkeeping during the post-closure period will be maintained in accordance with the requirements of 22 CAC, Section 67217.

All required records including inspection reports and ground water monitoring results will be kept on file for at least 3 years. These records and an updated copy of the post-closure plan will be retained in the offices of the Environmental Affairs Department.

## 10. SURVEY PLAT

In accordance with 22 CAC, Section 67219, Tosco will forward a survey plat, prepared by a licensed professional land surveyor, to Contra Costa County and to the Department of Health Services within 90 days after closure is completed. This plat will indicate the location and dimensions of the surface impoundments with respect to permanently surveyed vertical and horizontal benchmarks and will contain a prominent note stating the owner's obligation to restrict disturbance of the site as specified in Section 67217(d). At that time, Tosco will also forward to the same agencies information concerning the types and quantities of waste disposed of in the closed surface impoundments.

## 11. DEED NOTATION

In accordance with 22 CAC, Section 67220, the facility's property deed will be modified to include the following notifications:

1. The land in the area of the oily waste surface impoundments has been used to manage hazardous waste.
2. Use of the land in the area of the closed impoundments is restricted pursuant to 22 CAC, Section 67217(c).
3. A survey plat and record of waste have been filed with Contra Costa County and the Department of Health Services as required by Title 22.

**Attachment 3**  
**1998 Post-Closure Permit and**  
**Modification from 2002 and 2003**



California Environmental Protection Agency  
Department of Toxic Substances Control

HAZARDOUS WASTE FACILITY  
POST-CLOSURE PERMIT

Permit Number: 98-NC-005

Facility Name: *Tosco Refining Company*  
*Avon Refinery*  
*Oily Waste Impoundments*  
*Martinez*  
*Contra Costa County*  
*California*

Owner Name: *Tosco Corporation*  
*72 Cummings Point Road*  
*Stamford, CT 06902*

Operator Name: *Tosco Refining Company*  
*Avon Refinery*  
*One Solano Way*  
*Martinez, CA 94553-1487*

Facility EPA ID No.: *CAD.000 072 751*

Effective Date: *July 30, 1998*

Expiration Date: *July 30, 2008*

Permit Modification History: *None*

Pursuant to Section 25200 of the California Health and Safety Code, this RCRA-equivalent Hazardous Waste Facility Permit is hereby issued to: *Tosco Refining Company and Tosco Corporation*. The Issuance of this Permit is subject to the conditions set forth in this permit which consists of 5 pages and Attachments A, B, and C.

//Original signed by//

✓  
James M. Pappas, P.E., Chief  
Northern California Facility  
Permitting Branch  
Department of Toxic Substances Control

Date: *6/30/98*

Tosco Refining Company  
Hazardous Waste Facility  
Post-Closure Permit

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A. AUTHORITY

The California State Department of Toxic Substances Control (hereafter, DTSC) issues this Hazardous Waste Facility Post-Closure Permit (hereafter, Permit) pursuant to Health and Safety Code Section 25200.

B. FINDINGS

1. Tosco Refining Company (hereafter, the permittee), a division of Tosco Corporation operates the Avon Refinery which produces primarily gasoline and diesel fuels. Tosco Corporation owns the facility. The Avon Refinery also produces liquefied petroleum gas, heating oil, jet fuel, thinners, solvents, and petroleum coke. Crude oil capacity is approximately 126,000 barrels per calendar day. The Avon Refinery has been in operation since 1913. It has been owned and operated by Tosco since 1976. Previous owners of the Avon Refinery were Phillips Petroleum, Tidewater Oil, and Associated Oil Companies.

2. The Tosco Avon Refinery is located in Martinez, California, south of the Suisun Bay, east of the Pacheco Slough and Interstate 680, north of urban and industrial land along State Route 4, and west of open space land consisting of marshes and water ways. The facility is divided into Tracts.

3. The Oily Waste Impoundments (hereafter, OWIs), are two rectangular shaped ponds located within Tract 1 of the Tosco Avon Refinery. The OWIs cover roughly 4 acres within the approximately 2100-acre site of the Tosco Avon Refinery in Martinez. Those ponds are also known as Solid Waste Management Unit (SWMU) 17. The ponds were originally constructed to depths of three feet below grade and were subsequently excavated to a depth of six to seven feet during their operation. The OWIs were removed from service in December 1983 and officially closed by the California Department of Health Services on December 6, 1988 under applicable federal and state hazardous waste landfill closure requirements. At the time of their closure, both ponds depths were approximately 6 feet below surface. The width and length were 425 feet x 150 feet and 500 feet x 175 feet respectively for the east and west ponds.

4. The OWIs' closure officially completed in 1988 included the removal of sludges and soils, and the installation of a cap. The cap is composed of a two-foot low-permeability clay layer, a 60-mil high density polyethylene liner, a subsurface collection and drainage system composed of a lower layer of 12-oz-per-square-yard nonwoven needlepunched polypropylene geotextile fabric, 8-inch corrugated PVC subdrain pipe system placed with a fill of 8 inches of well-rounded sandy gravel in between pipes, and a layer 4-oz-per-square-yard of the same type of geotextile fabric on top of them. The ponds' uppermost layer is a vegetated soil cover of 2-foot minimum thickness in order to reduce infiltration and to enhance flow of surface runoff

toward their drainage ditches.

5. The permittee has performed certain historical groundwater monitoring and corrective action for the OWIs and for the entire refinery site under the directives of the San Francisco Bay Regional Water Quality Control Board (Regional Board), in addition to closing the OWIs. Current Regional Board's orders are 92-078 (Waste Discharge Requirements), 90-083 (Waste Discharge Requirements and Self Monitoring Program), and 93-079 (Site Cleanup Requirements and Self Monitoring Program).

6. The permittee has also been under the requirements of Title 22 California Code of Regulations, Division 4.5 Chapter 15 to perform monitoring and maintenance for the OWIs since closure of the OWIs.

#### C. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE.

DTSC has prepared a Negative Declaration for this project in accordance with the CEQA (Public Resources Code, Section 21000, et seq. and the State guidelines). Based on the Negative Declaration, DTSC finds that the project will not have any significant adverse effects. DTSC certified that the Negative Declaration complied with the provisions of CEQA.

#### D. REQUIREMENTS

1. This Permit authorizes the Permittee to conduct post-closure care, groundwater monitoring, and corrective action for groundwater contamination at the Tosco Avon Refinery facility with respect to the OWIs.

2. This permit is effective 30 days after it is signed by the Facility Permitting Branch Chief, Northern California Region, DTSC (hereafter, Facility Permitting Branch Chief).

3. DTSC's issuance of this permit does not release the Permittee from any liability or duty imposed by federal or state statutes and regulations, or local ordinances, except the obligation to obtain this Permit. The Permittee shall comply with all applicable provisions of Chapter 6.5 of Division 20 of the California Health and Safety Code and Title 22, Cal Code Regs., Division 4.5, including without limitation, the regulations expressly cited in Attachment A, which is attached hereto and by this reference incorporated herein.

4. Any management of hazardous waste with respect to the OWIs not authorized in this Permit is prohibited.

5. This Permit authorizes management of the OWIs and listed activities expressly

Tosco Refining Company  
Hazardous Waste Facility  
Post-Closure Permit

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cited in Attachment B and Attachment C, which are attached hereto and by this reference incorporated herein. Any modification or addition to the unit and listed activities described in Attachments B and C requires DTSC's approval of a Permit Modification.

6. DTSC's issuance of this Permit does not prevent DTSC from adopting or amending regulations or issuing orders which impose requirements in addition to or more stringent than those in existence at the time this Permit was issued. The Permittee shall comply with any such additional or more stringent requirements in addition to the requirements specified in this Permit.

7. The Regional Board also regulates groundwater quality at the facility. Any Waste Discharge Requirements concerning the facility issued by the State Water Resources Control Board or the Regional Board are incorporated as condition of this Permit by reference, as required by Health and Safety Code Section 25204.5. In December 1997, the facility was governed by: 1) the Regional Board's Waste Discharge Requirements, Order No. 92-078 that amended the Waste Discharge Requirements and Self Monitoring Program Order No. 90-083; and 2) the Regional Board's Site Cleanup Requirements and Self Monitoring Program Orders No. 93-079. Such orders and subsequent amendments are hereby incorporated as condition of this Permit by reference.

8. The OWIs at the Tosco Avon Refinery are subject to the requirements of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., (RCRA). The United States Environmental Protection Agency has authorized the State of California to permit RCRA facilities in California. This Permit is issued by DTSC in lieu of a RCRA permit.

9. Pursuant to California Health and Safety Code Section 25200.10, DTSC shall require corrective action for all releases of hazardous waste or constituents from a solid waste management unit or a hazardous waste management unit regardless of the time at which waste was released. The U.S. EPA, Region IX issued the Amended Administrative Order RCRA-09-89-0013A under Section 3008(h) of RCRA U.S.C. Section 6928(h) on September 6, 1990 for the purpose of addressing corrective action of releases at the Tosco Avon Refinery. Such order and subsequent amendments are hereby incorporated as condition of this Permit by reference, as required by the Health and Safety Code.

10. Where necessary, DTSC may utilize any of the information provided to it to assist in any determination as to whether to require the Permittee to institute additional corrective actions pursuant to and as may be authorized under California Health and Safety Code Section 25200.10.

11. DTSC has determined that the Part B Post-Closure Permit Application dated

Tosco Refining Company  
Hazardous Waste Facility  
Post-Closure Permit

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February 21, 1997, with its subsequent revisions submitted to DTSC prior to January 1998 and the amendments listed in Attachment B, are consistent with the other requirements of this Permit, including but not limited to the requirements imposed by the regulations cited in Attachment A. Therefore, the February 21, 1997 Part-B Post-Closure Permit Application, as modified in this Permit, is hereby incorporated into the requirements of this permit. In the event of any later conflict between such other requirements and the Approved Post-Closure Plan, such other requirements shall be controlling.

12. The conditions listed in Attachments A, B and C are hereby incorporated as conditions of this Permit.

13. Unless and until changed by written notification to the Permittee from the Facility Permitting Branch Chief, all reports, notifications, or other submissions which are required by this Permit to be sent or given to the Facility Permitting Branch Chief shall be sent by certified mail or hand delivered, during working hours to the office of:

Facility Permitting Branch Chief  
Department of Toxic Substances Control  
Northern California Branch, Berkeley Office  
700 Heinz Avenue, Suite 300  
Berkeley, California 94710-2737

14. The requirements of this Permit are severable, and if any requirement of this Permit, or the application of any such requirement to any circumstance, if held invalid, the application of such requirement to other circumstances and the remainder of this Permit shall not be affected thereby.

**Tosco Refining Company**  
**Hazardous Waste Facility**  
**Post-Closure Permit, Attachment A**

**ATTACHMENT A**

The following regulations are listed pursuant to 22 Cal Code Regs., 66270.30 and 66270.32(e), and are incorporated by reference in the Post-Closure Permit, attached:

- 66260.10 (Definitions)
- 66264.14 (Security Requirements)
- 66264.15 (General Inspection Requirements)
- 66264.16 (Personnel Training Program Requirements)
- 66264.31 (Design and Operation of the Facility)
- 66264.54 (Amendment of Contingency Plan)
- 66264.74 (Records Availability, Retention, Disposition)
- 66264.91 (Criteria for Implementing Required Programs)
- 66264.92 (Water Quality Protection Standard)
- 66264.93 (Constituents of Concern)
- 66264.94 (Concentration Limits)
- 66264.95 (Monitoring Points and Points of Compliance)
- 66264.96 (Compliance Period Determination)
- 66264.97 (General Water Quality and System Requirements)
- 66264.98 (Detection Monitoring Program Requirements)
- 66264.99 (Evaluation Monitoring Program Requirements)
- 66264.100 (Corrective Action Program Requirements)
- 66264.101 (Corrective Action for Waste Management Units Requirements)
- 66264.110 (Applicability of Post-Closure Requirements)
- 66264.117 (Post-Closure Care Requirements and Use of Property)
- 66264.118 (Post-Closure Plan and Amendments)
- 66264.119 (Post-Closure Notices Requirements)
- 66264.120 (Certification of Completion of Post-Closure Care)
- 66264.140 (Applicability of Financial Requirements)
- 66264.144 (Cost Estimate for Post-Closure Care)
- 66264.145 (Post-Closure Care Financial Assurance Requirements)
- 66264.148 (Financial Assurance Requirements in the Event of Bankruptcy)
- 66264.228 (Post-Closure Care Requirements)
- 66264.310 (Landfill Cover Requirements)
- 66270.10 (General Permit Requirements)
- 66270.11 (Signatory Requirements)
- 66270.12 (Confidentiality of Information)

**Tosco Refining Company**  
Hazardous Waste Facility  
Post-Closure Permit, Attachment A

- 66270.30 (Permit Conditions Applicable to All Permits)
- 66270.31 (Permit Monitoring Requirements)
- 66270.32 (Establishing Permit Conditions)
- 66270.40 (Transfer of Permits)
- 66270.41 (Modification, Revocation, Reissuance of Permits)
- 66270.42 (Permit Modification at the Request of the Permittee)
- 66270.43 (Termination and Denial of Permits)
- 66270.50 (Duration of Permits)
- 66270.51 (Continuation of Expiring Permits)

**Tosco Refining Company**  
Hazardous Waste Facility  
Post-Closure Permit, Attachment B

**ATTACHMENT B**

**Tosco Avon Refinery, Oily Waste Impoundments. EPA I.D. # CAD 000 072 751**

The following are modifications to the Part B Permit Application.

1. Pursuant to Cal. Code of Reg. Title 22 (22 CCR), Section 66264.228(k) the frequency of inspections and surveys performed by a qualified registered engineer shall be annually.
2. Pursuant to 22 CCR, Section 66264.228(p) the frequency of surveys performed by a licensed land surveyor, to determine the horizontal location and elevation of the cover and other features shall be annually.
3. Pursuant to 22 CCR, Section 66264.228(r), the owner or operator shall submit annual reports to DTSC describing measures undertaken at the site during the post-closure maintenance period.
4. The frequency of visual inspections by qualified Tosco facility personnel shall be quarterly. These inspections will be performed during the months of January, April, July and October. All inspections will be performed in order to assess needed maintenance to the unit.
5. In addition to the periodic inspections described in item 4 above, the permittee shall perform:
  - a. A visual inspection within three days after a 25-year 24-hour rainfall.
  - b. An inspection pursuant to the conditions of Attachment C after a significant earthquake, a 100-year rainfall, or other events which may cause substantial damage to the OWIs as described in Attachment C.
6. Pursuant to 22 CCR, Section 66265.117(b)(2)(B), the post-closure care period shall extend to 30 years from the effective date of the permit.
7. Within 45 days of the effective date of this permit, the permittee shall submit to the Facility Permitting Branch Chief a new post-closure cost estimate. The new post-closure cost estimate shall be based on 30 years from the effective date of the permit.

**Tosco Refining Company**  
**Hazardous Waste Facility**  
**Post-Closure Permit, Attachment B**

8. Within 60 days of DTSC's approval of the revised post-closure cost estimate, the permittee shall submit to the Facility Permitting Branch Chief documentation of Financial Assurance in at least the amount of the Post-closure cost estimate for a 30-year period.
9. Tosco shall notify DTSC in writing within 30 days of the effective date of this permit, that at least one employee has been designated as an Emergency Coordinator for the OWIs in accordance with 22 CCR, Sections 66264.55 and 66264.52(b). The notification shall include name(s), address(es) and phone number(s) of the Emergency Coordinator(s). The name or names of the Emergency Coordinator(s) and how they could be reached in the event of an emergency shall be kept up to date at Tosco's environmental affairs office and shall be readily available for inspection upon request by DTSC inspectors.
10. Within 30 days of the effective date of this permit, Tosco shall submit to the Facility Permitting Branch Chief for DTSC's approval a detailed workplan including a schedule for the implementation of the proposed work to repair the crack of the soil cap in the northwest area of the unit.

ATTACHMENT C

POST-EARTHQUAKE AND POST-DISASTER INSPECTIONS

1. Safety of personnel must be assured in all post-earthquake and post-disaster inspection activities. A qualified site safety person shall conduct periodic assessments regarding the conditions encountered during the inspection and any potential hazards to the inspection team shall be noted. Areas of potentially unstable soil shall be avoided, unless the site safety person determines that it is safe to proceed. Ambient air shall be monitored for site contaminants and for possible releases from other nearby facilities. Locations monitored shall be recorded in the inspection log. For safety purposes, remote inspection (e.g., with binoculars) must be done prior to any ride-on or walk-on inspection.

2. Inspection trigger. A post-earthquake inspection shall be required according to the following table. An inspection will be triggered when the earthquake is of "M" magnitude in the Richter scale and the earthquake epicenter is within a distance of "D" miles from the facility.

M	D	M	D	M	D	M	D
<4	See Note	5.1	22	6.3	42	7.5	69
4.0	10	5.2	23	6.4	43	7.6	71
4.1	11	5.3	25	6.5	45	7.7	73
4.2	12	5.4	27	6.6	47	7.8	76
4.3	13	5.5	28	6.7	50	7.9	78
4.4	14	5.6	30	6.8	52	8.0	80
4.5	15	5.7	32	6.9	54	8.1	83
4.6	16	5.8	33	7.0	57	8.2	85
4.7	17	5.9	35	7.1	59	8.3	87
4.8	18	6.0	37	7.2	61	8.4	90
4.9	19	6.1	38	7.3	64	8.5	92
5.0	20	6.2	40	7.4	66		

Note: For earthquakes less than 4.0 Richter magnitude, if significant damage has been reported within 10 miles radius from the facility, a post-earthquake inspection is required.

A facility inspection shall be performed after a 100-year rainfall. At the discretion of the DTSC, inspection may be triggered after other events which cause substantial damages in the area of the facility.

**Tosco Refining Company**  
Hazardous Waste Facility  
Post-Closure Permit, Attachment C

DTSC may elect to change the triggering criteria, based on revised guidance of public agencies and the recommendations of the scientific and engineering community. Such modification shall be done in accordance with Article 4 of Chapter 20, Division 4.5 of Title 22 California Code of Regulations.

3. A notification form must be received by DTSC within seven (7) days of an earthquake or a precipitation event which has triggered an inspection. The notification form shall be sent to the Facility Permitting Branch Chief.

A template for the following information shall be prepared for use in the event of an earthquake or other triggering event. The form shall be prepared within 90 days of the effective date of the Permit. The form must include: facility information, earthquake information (or information regarding the other triggering event), and agency contacts, as detailed below.

3.1 Facility information.

- \* Name and address of the facility.
- \* United States Environmental Protection Agency identification number (USEPA ID number).
- \* Description of site to be inspected (i.e., two closed oily waste ponds and adjacent areas).
- \* Location of site to be inspected (cite names of surrounding access roads).
- \* Date and time of proposed inspection, if it cannot be performed within 3 days of the triggering event.
- \* Facility contacts (names, telephone numbers, position).
- \* ~~Inspectors: facility personnel who will be performing the inspection (names,~~ telephone numbers, position). The inspection team shall consist of a minimum of two persons; three persons are preferred. The inspection team must include at least one licensed civil engineer, certified engineering geologist, or registered geologist. One member of the inspection team must be designated as the site safety person.
- \* Notifier: person making the notification (name, telephone number, and position)
- \* Date of notification.

3.2 Earthquake information.

- \* Fault name.
- \* Richter magnitude (other magnitudes also if available).
- \* Date and time of occurrence (Military Time and Pacific Standard Time).

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- \* Location of the quake epicenter in north latitude and west longitude .
- \* Depth of the quake hypocenter.
- \* Description of the location of the epicenter in terms of landmarks (e.g., "45 miles northeast of Eureka").
- \* Area of influence of the quake - to be estimated from the table (item 2, above) and given as a radius in miles, unless better information is available.
- \* Estimated distance and direction of the facility from the epicenter.
- \* Notes regarding the potential for aftershocks .
- \* Remarks on damage due to the quake as reported from other sources.
- \* Notes regarding any changes or updates to original estimates of earthquake location, magnitude, etc.
- \* Sources of earthquake information (e.g., USGS).

3.3 Precipitation Information.

- \* Dates of the rainfall.
- \* A rainfall hydrograph from the facility or from the nearest monitoring station.
- \* Map showing: extent of flooding in the facility area, with failed levees or roads noted .

3.4 Agency contacts. Contacts in DTSC, the county, the city, and others as appropriate (names, phone numbers, fax numbers, positions).

3.5 Requests for postponement of inspection will be considered by the DTSC. Requests for postponement shall include (in addition to the other items required on the notification form): the reasons for postponement (~~e.g., concern for safety of personnel, the fact that no damages have~~ been reported in the facility area, etc.), the date of the proposed inspection, and the date of the next regular inspection. If a request for postponement is made, the notification form must be received by the DTSC within three days of the earthquake or other triggering event (not seven days). A request for postponement must be signed by the designated plant manager (and name, phone number, position).

4.0 Inspection. The inspection must take place within three days of the earthquake or 100-year rainfall. The two closed refinery ponds must be inspected for any indication of damages due to the earthquake or to the 100-year rainfall. Damages to access roads and to surrounding structures must also be noted.

4.1 A topographic map shall be a guide for the inspection and a primary record of the inspection. The topographic map must include the following: site name and location, site

**Tosco Refining Company**  
Hazardous Waste Facility  
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boundary, names of access roads and other distinguishing features in the site vicinity (e.g., oily waste canal, sludge drying ponds), locations and names of site wells, drainage features (drainage ditches and canals, culverts, subsurface drainage system in the ponds), benchmarks, fences, gates, and the locations of the edges (i.e., keys) of the geotextile and liner system.

Damages observed during the inspection must be noted on the topographic map, using standard notation.

4.2 Photographs shall be primary records of the inspection. Any significant damages at the site or along the access roads to the site must be photographed. The complete circuit of the ponds must be photographed.

4.3 Any features suggestive of soil failure at the site or along access roads to the site must be shown on the topographic map, and described in the log book. These include: washouts, scours, cracks, slumps, slides, sand boils, differential settlement, bulges, seeps, sags, changes in drainage, debris, tilting, potholes, fence disorientation, ridge warps, side warps, etc.

4.4 Drainage. The following must be recorded with respect to drainage ditches: sediment, color, odor, flow direction, and approximate flow rate. The presence/absence of flow at culverts must be noted, and any potential blockage of flow. Surface water flow directions and any evidence of surface erosion must be recorded. The line of the subsurface piping must be inspected for: daylighting, subsidence, piping, ponding, etc. Failed levees in the site area shall be noted on the map.

4.5 Containment system. The circuit of the ponds and adjacent area must be inspected for any daylighting of the liner materials, including geotextiles, gravel, and HDPE liner. Any scouring, erosion of soil, or breaching of vegetative cover must be noted. Animal burrows and other effects (e.g., water exiting from burrows) must be noted. The condition of the vegetative cover shall be described.

4.6 Wells. Air monitoring results at the well head (i.e., oxygen readings, PID readings) must be recorded along with depth of well, depth of water, color, odor, sheen, product, etc. The depth of any well obstructions and any evidence of settlement in the well area must be recorded. All equipment used in wells must be properly decontaminated.

4.7 Benchmarks must be inspected for any evidence of damage or displacement. Damaged benchmarks shall be re-surveyed.

5.0 Inspection Report and Damage Assessment (IRDA). An IRDA must be received by the

California Environmental Protection Agency  
Department of Toxic Substances Control



HAZARDOUS WASTE FACILITY  
POST-CLOSURE PERMIT

Permit Number: 98-NC-005

Facility Name: *ULTRAMAR INC,  
GOLDEN EAGLE REFINERY  
Martinez, Contra Costa County,  
California*  
Owner Name: *ULTRAMAR INC.,  
150 Solano Way  
Martinez, CA 94553-1487*  
Operator Name: *Tosco Refining Company  
1380 San Pablo Avenue, Rodeo,  
CA 94572-1299*

Facility EPA ID Number: CAD 000.072.751

Effective Date: July 30, 1998

Expiration Date: July 30, 2008

Date Modified: July 3, 2002

Modification No. NC2-070302-A

Pursuant to Section 66270.42, Title 22, Division 4.5, California Code of Regulations, the Hazardous Waste Facility Post-Closure Permit effective July 30, 1998 is hereby modified to address a change of ownership and revise the page numbering/header format. Pages 1 through 24 are affected by this modification. The revised permit, Attachment "A" consists of 24 pages.

**//Original signed by//**

**RECEIVED**

Mohinder S. Sandhu, P.E., Chief  
Standardized Permits and  
Corrective Action Branch  
Department of Toxic Substances Control

**PPCO HES-PRM**

Date: July 3, 2002

ATTACHMENT "A"  
ULTRAMAR INC., GOLDEN EAGLE REFINERY  
150 SOLANO WAY, MARTINEZ, CA 94553  
HAZARDOUS WASTE FACILITY POST-CLOSURE PERMIT

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## ATTACHMENT "A"

### PART I. DEFINITIONS

1. "DTSC" as used in this Permit means the California Environmental Protection Agency, Department of Toxic Substances Control.
2. "Permittee" as used in this Permit means the Owner and Operator.
3. "HSC" as used in this Permit means the Health and Safety Code.
4. "CCR" as used in this Permit means the California Code of Regulations.
5. Unless explicitly stated otherwise, all references to items in this Permit shall refer only to items occurring within the same part.

## PART II. DESCRIPTION OF THE FACILITY AND OWNERSHIP

### 1. OWNER

The owner of the facility is Ultramar Inc., Golden Eagle Refinery (hereafter "owner").

### 2. OPERATOR

The operator of the facility is Tosco Refining Company (hereafter "Operator"), 1380 San Pablo Avenue, Rodeo, CA 94572-1299. Tosco Corporation will be the operator of the surface impoundment units and will implement Post-Closure Permit cap maintenance, groundwater monitoring, and continue to maintain the financial assurance mechanism.

### 3. LOCATION

Ultramar Inc., Golden Eagle Refinery is located in Martinez, California, south of the Suisun Bay, east of the Pacheco Slough and Interstate 680, north of urban and industrial land along State Route 4, and west of open space land consisting of marshes and water ways. The facility is located in Contra Costa County, California, described in the Grant Deed Recorded April 1, 1976, in Contra Costa County Records as Instrument Number 33617 at Book 7810.

### 4. DESCRIPTION

The Oily Waste Impoundments (hereafter, OWIs), are two rectangular shaped ponds located within Tract 1 of the Ultramar Inc., Golden Eagle Refinery. The OWIs cover approximately four acres within the approximately 2,100-acre site of the Golden Eagle Refinery in Martinez. The OWIs were removed from service in December 1983 and officially closed by the California Department of Health Services on December 6, 1988 under applicable federal and state hazardous waste landfill closure requirements. At the time of their closure, both ponds depths were approximately 6 feet below ground surface. The sizes (width and length) of the east and the west ponds were 425 feet x 150 feet and 500 feet x 175 feet respectively.

The OWIs closure in 1988 included the removal of sludge and soils, and the installation of a cap. The cap is composed of two-foot low-permeability clay. There is a lower layer of polypropylene geotextile fabric, an 8-inch corrugated PVC subdrain pipe system, a layer of geotextile fabric, an 8-inch corrugated PVC subdrain pipe system, and a top of geotextile fabric. The uppermost layers of caps are vegetated soil covers of 2-foot minimum thickness for reduced infiltration and to enhance flow of surface runoff toward their drainage ditches.

The permittee has performed and is required to continue to perform annual groundwater monitoring and maintenance for the OWIs in accordance with the requirements of Title 22 California Code of Regulations, Division 4.5.

5. FACILITY SIZE AND TYPE FOR FEES

The size of the facility is large for the purpose of activity fees associated with the Post-Closure Permit for these two former surface impoundments.

### PART III. GENERAL CONDITIONS

#### 1. PERMIT APPLICATION DOCUMENTS

- (a) The first Part "A" Application dated was submitted to DTSC. on November 19, 1980 and the revised Part A Application was submitted to DTSC. on March 30, 1993 for the OWIs. On June 21, 1983 the revised Part "A" identified the OWIs as the only regulated units. A Part "B" Application (Operation Plan) for the OWIs was submitted to the U.S. EPA, in August 1985. A final permit determination was not made on that Part "B" application. The OWIs were certified closed (with waste in place) by the California Department of Health Services and the U. S. EPA on December 6, 1988. A post-closure permit application was submitted to DTSC on February 21, 1997. A post-closure permit for the OWIs was approved by DTSC on June 30, 1998 which is effective for a ten-year period.

#### 2. EFFECT OF PERMIT

- (a) The Permittee shall comply with the provisions of the California Health and Safety Code, and Division 4.5 of Title 22, California Code of Regulations. The issuance of this Permit by DTSC does not release the Permittee from any liability or duty imposed by federal or state statutes or regulations or local ordinances, except the obligation to obtain this Permit.
- (b) The Permittee is permitted to conduct post-closure care and groundwater monitoring at the Ultramar Inc., Golden Eagle Refinery facility with respect to the OWIs. Any activities not specifically authorized in this Permit are strictly prohibited.
- (c) Compliance with the terms of this Permit does not constitute a defense to any action brought under any other law governing protection of public health or the environment, including, but not limited to, one brought for any imminent and substantial endangerment to human health or the environment.
- (d) DTSC's issuance of this Permit does not prevent DTSC. from adopting or amending regulations that impose additional or more stringent requirements than those in existence at the time this Permit is issued and does not prevent the enforcement of these requirements against the Permittee.
- (e) Failure to comply with any term or condition set forth in the Permit in the time or manner specified herein will subject the Permittee to possible

enforcement action including but not limited to penalties pursuant to California Health and Safety Code, Section 25187.

- (f) In addition, failure to submit any information required in connection with the Permit, or falsification and/or misrepresentation of any submitted information, is grounds for revocation of this Permit (Title 22, California Code of Regulations, Section 66270.43).
- (g) In case of conflicts between the Operation Plan and the Permit, the Permit conditions take precedence.
- (h) This Permit includes and incorporates by reference any conditions of waste discharge requirements issued by the State Water Resources Control Board or any of the California Regional Water Quality Control Boards and any conditions imposed pursuant to section 13227 of the Water Code.
- (i) The OWIs at the Tosco Avon Refinery are subject to the requirements of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., (RCRA). The United States Environmental Protection Agency has authorized the State of California to permit RCRA facilities in California. This Permit is issued by DTSC in lieu of a RCRA permit.
- (j) Pursuant to California Health and Safety Code Section 25200.10, DTSC shall require corrective action for all releases of hazardous waste or constituents from a solid waste management unit or a hazardous waste management unit regardless of the time at which waste was released. The U.S. EPA, Region IX issued the Amended Administrative Order RCRA09-89-0013A under Section 3008(h) of RCRA U.S.C. Section 6928(h) on September 6, 1990 for the purpose of addressing corrective action of releases at the Tosco Avon Refinery. Such order and subsequent amendments are hereby incorporated as condition of this Permit by reference, as required by the Health and Safety Code.
- (K) Where necessary, DTSC may utilize any of the information provided to it to assist in any determination as to whether to require the Permittee to institute additional corrective actions pursuant to and as may be authorized under California Health and Safety Code Section 25200.10.
- (l) DTSC has determined that the Part B Post-Closure Permit Application dated February 21, 1997, with its subsequent revisions submitted to DTSC and the amendments listed in Attachment B, are consistent with the other requirements of this Permit, including but not limited to the requirements imposed by the regulations cited in Attachment A. Therefore, the February 21, 1997 Part-B Post-Closure Permit Application, as modified in this Permit, is hereby incorporated into the requirements of

this permit.

- (m) Unless and until changed by written notification to the Permittee from the Standardized Permits and Corrective Action Branch Chief, all reports, notifications, or other submissions which are required by this Permit to be sent or given to the Standardized Permit and Corrective Action Branch Chief shall be sent by certified mail or hand delivered, during working hours to the office of:

Standardized Permit and Corrective Action Branch Chief  
Department of Toxic Substances Control  
700 Heinz Avenue, Suite 200  
Berkeley, California 94710

- (n) The requirements of this Permit are several, and if any requirement of this Permit, or the application of any such requirement to any circumstance, if held invalid, the application of such requirement to other circumstances and the remainder of this Permit shall not be affected thereby.

3. COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

A Negative Declaration for this project has been prepared in the accordance with the requirements of Public Resources Code Section 21000 et seq. and the CEQA Guidelines, Section 15070 et seq. of Title 14, California Code of Regulations. Based on the Negative Declaration, DTSC finds that the project will not have any significant adverse effects. DTSC certified that the Negative Declaration complied with the provisions of CEQA.

4. ENVIRONMENTAL MONITORING

The permittee shall comply with all applicable provisions of Chapter 6.5 of Division 20 of the California Health and Safety Code and Title 22, California Code Regulations, Division 4.5, including without limitation, the regulations expressly cited in the following:

66260.10	Definitions
66264.14	Security Requirements
66264.15	General Inspection Requirements
66260.16	Personnel Training Program Requirements
66264.31	Design and Operation of the Facility
66264.54	Amendment of Contingency Plan
66264.74	Records Availability, Retention, Disposition
66264.91	Criteria for Implementing Required Programs
66264.92	Water Quality Protection Standard
66264.93	Constituents of Concern
66264.94	Concentration Limits

66264.95	Monitoring Points and Points of Compliance
66264.96	Compliance Period Determination
66264.97	General Water Quality and System Requirements
66264.98	Detection Monitoring program Requirements
66264.99	Evaluation Monitoring Program Requirements
66264.100	Corrective Action Program Requirements
66264.101	Corrective Action for Waste Management Units Requirements
66264.110	Applicability of Post-Closure Requirements
66264.117	Post-Closure Care Requirements and Use of Property
66264.118	Post-Closure Plan and Amendments
66264.119	Post-Closure Notice Requirements
66264.120	Certification Completion of Post-Closure Care
66264.140	Applicability of Financial Requirements
66260.144	Cost Estimate for Post-Closure Care
66264.145	Post-Closure Care Financial Assurance Requirements
66264.148	Financial Assurance Requirements in the Event of Bankruptcy
66264.228	Post-Closure Care Requirements
66264.310	Landfill Cover Requirements
66270.10	General Permit Requirements
66270.11	Signatory Requirements
66270.12	Confidentiality of Information
66270.30	Permit Conditions Applicable to All Permits
66270.31	Permit Monitoring Requirements
66270.32	Establishing Permit Conditions
66270.40	Transfer of Permits
66270.41	Modification, Revocation, Reissuance of Permits
66270.42	Permit Modification at the Request of the Permittee
66270.43	Termination and Denial of Permits
66270.50	Duration of Permits
66270.51	Continuation of Expiring Permits

#### MODIFICATION TO THE PART B PERMIT APPLICATION

The following are modifications to the Part B Permit Application.

- (1) Pursuant to California Code of Regulations, Title 22 (22 CCR), Section 66264.228(k) the frequency of inspections and surveys performed by a qualified registered engineer shall be annually.
- (2) Pursuant to 22 CCR, Section 66264.228(p) the frequency of surveys performed by a licensed land surveyor, to determine the horizontal location and elevation of the cover and other features shall be annually.
- (3) Pursuant to 22 CCR, Section 66264.228(r), the owner or operator shall submit annual reports to DTSC. describing measures undertaken at the site during the post-closure maintenance period.

- (4) The frequency of visual inspections by qualified the facility Operator personnel shall be formed during the months of January, April, quarterly. These inspections will be per July and October. All inspections will performed in order to assess needed maintenance to the unit.
- (5) In addition to the periodic inspections described in item 4 above, the permittee shall perform:
- a. A visual inspection within three days after a 25-year 24-hour rainfall.
  - b. An inspection pursuant to the conditions of a significant earthquake, a 100-year rain fall, or other events, which may cause substantial damage to the OWIs.
- (6) Pursuant to 22 CCR, Section 66265.117(b)(2)(B), the post-closure care period shall extend to 30 years from the effective date of the permit.
- (7) Within 45 days of the effective date of this permit, the permittee shall submit to the Standardized Permit and Corrective Action Branch Chief a new post-closure cost estimate. The new post-closure cost estimate shall be based on 30 years from the effective date of the permit.
- (8) Within 60 days of DTSC's approval of the revised post-closure cost estimate, the permittee shall submit to the Facility Permitting Branch Chief documentation of Financial Assurance in at least the amount of the Post-closure cost estimate for a 30-year period.
- (9) The Operator shall notify DTSC. in writing within 30 days of the effective date of this permit, that at least one employee has been designated as an Emergency Coordinator for the Owls in accordance with 22 CCR, Sections 66264.55 and 66264.52(b). The notification shall include name(s), address(es) and phone number(s) of the Emergency Coordinator(s). The name or names of the Emergency Coordinator(s) and how they could be reached in the event of an emergency shall be kept up to date at Operator's environmental affairs office and shall be readily available for inspection upon request by DTSC. inspectors.
- (10) Within 30 days of the effective date of this pen-nit, Tosco shall submit to the Facility Permitting, Branch Chief for DTSC's approval a detailed workplan including a schedule for the implementation of the proposed work to repair the crack of the soil cap in the northwest area of the unit.

#### POST-EARTHQUAKE AND POST-DISASTER INSPECTIONS

- (1) Safety of personnel must be assured in all post-earthquake and post-disaster inspection activities. A qualified site safety person shall conduct

periodic assessment regarding the conditions encountered during the inspection and any potential hazards to the inspection team potentially unstable soil shall be avoided, unless the site safety person determines that it is safe to proceed. Ambient air shall be monitored for site contaminants and for possible releases from other nearby facilities. Locations monitored shall be recorded in the inspection log. For safety purposes, remote inspection (e.g., with binoculars) must be done prior to any rid-on or walk-on inspection.

(2) Inspection trigger. A post-earthquake inspection shall be required according to the following table. An inspection will be triggered when the earthquake is of "M" magnitude in the Richter scale and the earthquake epicenter is within a distance of "D" miles from the facility.

M	D	M	D	M	D	M	D
<4	see note	5.1	22	6.3	42	7.5	69
4.0	10	5.2	23	6.4	43	7.6	71
4.1	11	5.3	25	6.5	45	7.7	73
4.2	12	5.4	27	6.6	47	7.8	76
4.3	13	5.5	28	6.7	50	7.9	78
4.4	14	5.6	30	6.8	52	6.0	50
4.5	15	5.7	32	6.9	54	8.1	83
4.6	16	5.8	33	7.0	57	8.2	85
4.7	17	5.9	35	7.1	59	8.3	87
4.8	18	6.0	37	7.2	61	8.4	90
4.9	19	6.1	38	7.3	64	8.5	92
5.0	20	6.2	40	7.4	66		

Note: For earthquakes less than 4.0 Richter magnitude, if significant damage has been reported within 10 miles radius from the facility, a post-earthquake inspection is required.

A facility inspection shall be performed after a 100-year rainfall. At the discretion of the DTSC, inspection may be triggered after other events, which cause substantial damages in the area of the facility.

DTSC. may elect to change the triggering criteria, based on revised guidance of public agencies and the recommendations of the scientific and engineering community. Such modification shall be done in accordance with Article 4 of Chapter 20, Division 4.5 of Title 22 California Code of Regulations.

(3) A notification form must be received by DTSC. within seven (7) days of an earthquake or a precipitation event which has triggered an inspection. The notification form shall be sent to the Standardized Permit and Corrective Action Branch Chief.

A template for the following information shall be prepared for use in the event of an earthquake or other triggering event. The form shall be prepared within 90 days of the effective date of the Permit. The form must include facility information, earthquake information (or information regarding the other triggering event), and agency contacts, as detailed below.

(3.1) Facility information

- Name and address of the facility.
- United States Environmental Protection Agency identification number (ISOPIA ID number).
- Description of site to be inspected (i.e., two closed oily waste ponds and adjacent areas).
- Location of site to be inspected (cite names of surrounding access roads).
- Date and time of proposed inspection, if it cannot be performed within 3 days of the triggering event.
- Facility contacts (names, telephone numbers, position).
- Inspectors: facility personnel who will be performing the inspection (names, telephone numbers, position). The inspection team shall consist of a minimum of two persons; three persons are preferred. The inspection team must include at least one licensed civil engineer, certified engineering geologist, or registered geologist. One member of the inspection team must be designated as the site safety person.
- Notifier: person making the notification (name, telephone number, and position).
- Date of notifications.

(3.2) Earthquake information.

- Fault name.
- Richter magnitude (other magnitudes also if available).
- Date and time of occurrence (Military Time and Pacific Standard Time).
- Location of the quake epicenter in north latitude and west longitude.
- Depth of the quake hypocenter.
- Description of the location of the epicenter in terms of landmarks (e.g., 45 miles northeast of Eureka).
- Area of influence of the quake - to be estimated from the table (item (2), above) and given as a radius in miles, unless better information is

available.

- Estimated distance and direction of the facility from the epicenter.
- Notes regarding the potential for aftershocks.
- Remarks on damage due to the quake as reported from other sources.
- Notes regarding any changes or updates to original estimates of earthquake location, magnitude, etc.
- Sources of earthquake information (e.g., US Geological Survey).

(3.3) Precipitation Information.

- Dates of the rainfall.
- A rainfall hydrograph from the facility or from the nearest monitoring station.
- Map showing: extent of flooding in the facility area, with failed levees or roads noted.

(3.4) Agency contacts. Contacts in DTSC, the county, the city, and others as appropriate (names, phone numbers, fax numbers, positions).

(3.5) Requests for postponement of inspection will be considered by the DTSC. Request for postponement shall include (in addition to the other items required on the notification form); the reasons for postponement (e.g., concern for safety of personnel, the fact that no damages have been reported in the facility area, etc.), the date of the proposed inspection, and the date of the next regular inspection. If a request for postponement is made, the notification form must be received by the DTSC within three days of the earthquake or other triggering event (not seven days). A request for postponement must be signed by the designated plant manager (name, phone number, position).

(4.0) Inspection.

The inspection must take place within three days of the earthquake or 100-year rainfall. The two closed refinery ponds must be inspected for any indication of damages due to surrounding to the earthquake or to the 100-year rainfall. Damages to access roads and surrounding structures must also be noted.

(4.1) A topographic map shall be a guide for the inspection and a primary record of the inspection. The topographic map must include the following: site name and location, site boundary, names of access roads and other distinguishing features in the site vicinity (e.g., oily waste canal, sludge drying ponds), locations and names of site wells, drainage features (drainage ditches and canals, culverts, subsurface drainage system in the ponds), benchmarks, fences, gates, and the locations of the edges (i.e., keys) of the geotextile and liner system.

Damages observed during the inspection must be noted on the topographic map, using standard notation.

- (4.2) Photographs shall be primary records of the inspection. Any significant damages at the site or along the access roads to the site must be photographed. The complete circuit of the ponds must be photographed.
- (4.3) Any features suggestive of soil failure at the site or along access roads to the site must be shown on the topographic map, and described in the log book. These include: washouts, scours, cracks, slumps, slides, sand boils, differential settlement, bulges, seeps, sags, changes in drainage, debris, tilting, potholes, fence disorientation, ridge warps, side warps, etc.
- (4.4) Drainage. The following, must be recorded with respect to drainage ditches: sediment, color, odor, flow direction, and approximate flow rate. The presence/absence of flow at culverts must be noted, and any potential blockade of flow. Surface water flow directions and any evidence of surface erosion must be recorded. The line of the subsurface piping must be inspected for: daylighting, subsidence, piping, ponding, etc. Failed levees in the site area shall be noted on the map.
- (4.5) Containment system. The circuit of the ponds and adjacent area must be inspected for any daylighting of the liner materials, including geotextiles, gravel, and HDPE liner. Any scouring, erosion of soil, or breaching of vegetative cover must be noted. Animal burrows and other effects (e.g., water exiting from burrows) must be noted. The condition of the vegetative cover shall be described.
- (4.6) Wells. Air monitoring results at the well head (i.e., oxygen readings, PID readings) must be recorded along with depth of well, depth of water, color, odor, sheen, product, etc. The depth of any well obstructions and any evidence of settlement in the well area must be recorded. All equipment used in wells must be properly decontaminated.
- (4.7) Benchmarks must be inspected for any evidence of damage or displacement. Damaged benchmarks shall be resurveyed.
- (5.0) Inspection Report And Damage Assessment (IRDA)

An IRDA must be received by the DTSC within fifteen days after the earthquake. Two copies of the IRDA must be sent to the Standardized Permit and Corrective Action Branch Chief.

The IRDA must include: a description of damages observed, a description of all releases, a summary of corrective measures undertaken to stabilize the site, and recommendations for additional work (if appropriate). All repairs must be pre-

approved by the site safety person. Repairs shall focus on preventing releases and controlling the flow of water. Photographs taken before and after corrective measures must be included. The IRDA must contain: the notification form, the topographic map with field notations, photographs, a map of local faults (when the triggering event is an earthquake), a map of flooded areas (when the triggering event is a rainfall), and copies of field log, entries from the inspection.

For more extensive repairs, the IRDA shall contain proposed corrective actions and a schedule of work.

The IRDA shall be signed by the designated plant manager and by a licensed engineer, a certified engineering geologist, or a registered Geologist. If significant repairs are necessary, an engineer's signature is required.

## PART VI - CORRECTIVE ACTION

1. The permittee is required to perform corrective action under the directives of the San Francisco Bay Regional Water Quality Control Board (RWQCB) for the entire refinery site in accordance with Waste Discharge Requirement Orders.
2. In the event the Permittee identifies an immediate or potential threat to human health and/or the environment, discovers new releases of hazardous waste and/or hazardous constituents, or discovers new Solid Waste Management Units (SWMUs) not previously identified, the Permittee shall notify DTSC orally within 24 hours of discovery and notify DTSC in writing within 10 days of such discovery summarizing the findings including the immediacy and magnitude of any potential threat to human health and/or the environment.
3. DTSC may require the Permittee to investigate, mitigate and/or take other applicable action to address any immediate or potential threats to human health and/or the environment and newly identified releases of hazardous waste and/or hazardous constituents. For newly identified SWMUs, the Permittee is required to conduct corrective action. Corrective action will be carried out either under a Corrective Action Consent Agreement or Unilateral Corrective Action Order pursuant to Health and Safety Code, Section 25187.

## ATTACHMENT 1 PART A PERMIT APPLICATION

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0034 Expires 9-30-96  
 GSA No. 0248-EPA-07

For EPA Regional Use Only  Date Received Month    Day    Year 	 United States Environmental Protection Agency Washington, DC 20460 <h3 style="margin: 0;">Hazardous Waste Permit Application</h3> <h3 style="margin: 0;">Part A</h3> <p style="font-size: small;">(Read the Instructions before starting)</p>	
<b>I. Installation's EPA ID Number (Mark 'X' in the appropriate box)</b>		
<input type="checkbox"/> A. First Part A Submission		<input checked="" type="checkbox"/> B. Part A Amendment # <u>1</u>
<b>C. Installation's EPA ID Number</b> CAD0000072751		<b>D. Secondary ID Number (If applicable)</b> 
<b>II. Name of Facility</b> ULTRAMAR INC GOLDEN EAGLE RFY		
<b>III. Facility Location (Physical address not P.O. Box or Route Number)</b>		
<b>A. Street</b> 150 SOLANO WAY		
Street (Continued) 		
<b>City or Town</b> MARTINEZ		<b>State</b> <b>Zip Code</b> CA 94553-1487
<b>County Code (If known)</b> 	<b>County Name</b> CONTRA COSTA	
<b>B. Land Type</b> (Enter code) P	<b>C. Geographic Location</b> LATITUDE (Degrees, Minutes, & Seconds)    LONGITUDE (Degrees, Minutes & Seconds) 38 01 40 N    122 04 10 E	<b>D. Facility Existence Date</b> Month    Day    Year 
<b>IV. Facility Mailing Address</b>		
Street or P.O. Box 150 SOLANO WAY		
<b>City or Town</b> MARTINEZ		<b>State</b> <b>Zip Code</b> CA 94553-1487
<b>V. Facility Contact (Person to be contacted regarding waste activities at facility)</b>		
<b>Name (Last)</b> COVERT		<b>(First)</b> PAT
<b>Job Title</b> MANAGER, ENV.		<b>Phone Number (Area Code and Number)</b> 925-370-3265
<b>VI. Facility Contact Address (See instructions)</b>		
<b>A. Contact Address</b> Location Mailing    Other <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>		<b>B. Street or P.O. Box</b> 
<b>City or Town</b> 		<b>State</b> <b>Zip Code</b> 

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Form Approved, OMB No. 2050-0024 Expires 9-30-98  
 GSA No. 0248-EPA-OT

EPA I.D. Number (Enter from page 1)												Secondary ID Number (Enter from page 1)																	
CAD0000072751																													
VII. Operator Information (See instructions)																													
Name of Operator																													
TOSCO REFINING COMPANY																													
Street or P.O. Box																													
1380 SAN PABLO AVENUE																													
City or Town												State						ZIP Code											
RODEO												CA						94572-1299											
Phone Number (Area Code and Number)												B. Operator Type						C. Change of Operator Indicator						Date Changed					
510-799-4411												P						Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>						Month Day Year					
VIII. Facility Owner (See instructions)																													
A. Name of Facility's Legal Owner																													
ULTRAMAR INC																													
Street or P.O. Box																													
150 SOLANO WAY																													
City or Town												State						ZIP Code											
MARTINEZ												CA						94553-1487											
Phone Number (Area Code and Number)												B. Owner Type						C. Change of Owner Indicator						Date Changed					
925-228-1220												P						Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						090100					
IX. SIC Codes (4-digit, in order of significance)																													
Primary												Secondary																	
2911 (Description) Petroleum Refining																													
Secondary												Secondary																	
X. Other Environmental Permits (See instructions)																													
A. Permit Type (Enter code)						B. Permit Number												C. Description											
NEP						CAD0004961												NPDES PERMIT											
						E43, NSR443												BAAQMD GENERAL AIR PERMIT											

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Form Approved, OMB No. 2050-0034 Expires 9-30-96  
 USA No. 0248-EPA-07

EPA I.D. Number (Enter from page 1): **CAD0000072751** Secondary ID Number (Enter from page 1):

XI. Nature of Business (Provide a brief description)  
**PETROLEUM REFINING**  
 THE ONE SURFACE IMPOUNDMENT CONTAINED IN THE JUNE 21, 1983, REVISED PART A APPLICATION WAS REMOVED FROM SERVICE IN DECEMBER 1988. CLOSURE WAS APPROVED BY CAL-EPA, DTSC and USEPA ON DECEMBER 6, 1988. THE UNIT IS UNDERGOING POST-CLOSURE PURSUANT TO PERMIT No. 98-NC-005, dated JUNE 30, 1998.

XII. Process Codes and Design Capacities  
 A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Thirteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in item XIII.  
 B. PROCESS DESIGN CAPACITY - For each code entered in column A, enter the capacity of the process.  
 1. AMOUNT - Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.  
 2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.  
 C. PROCESS TOTAL NUMBER OF UNITS - Enter the total number of units used with the corresponding process code.

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	
<i>Disposal:</i>			T87	Smelting, Melting, Or Refining Furnace	} Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; or Btu's Per Hour	
D79	Underground Injection	Gallons; Liters; Gallons Per Day; or Liters Per Day	T88	Titanium Dioxide Chloride Process Oxidation Reactor		
D80	Landfill	Acre-feet or Hectare-meter	T89	Methane Reforming Furnace		
D81	Land Treatment	Acres or Hectares	T90	Pulping Liquor Recovery Furnace		
D82	Ocean Disposal	Gallons Per Day r Liters Per Day	T91	Combustion Device Used in The Recovery Of Sulfur Values From Spent Sulfuric Acid		
D83	Surface Impoundment	Gallons or Liters	T92	Halogen Acid Furnaces		
D99	Other Disposal	Any Unit of Measure Listed Below	T93	Other Industrial Furnaces Listed in 40 CFR §260.10		
<i>Storage:</i>			T94	Containment Building-Treatment		Cubic Yards or Cubic Meters
S01	Container (Barrel, Drum, Etc.)	Gallons or Liters	<i>Miscellaneous (Subpart X):</i>			
S02	Tank	Gallons or Liters	X01	Open Burning/Open Detonation		Any Unit of Measure Listed Below
S03	Waste Pile	Cubic Yards or Cubic Meters	X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; or Kilograms Per Hour	
S04	Surface Impoundment	Gallons or Liters	X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Metric Tons Per Day; or Btu's Per Hour	
S05	Drip Pad	Gallons or Liters	X04	Geologic Repository	Cubic Yards or Cubic Meters	
S06	Containment Building-Storage	Cubic Yards or Cubic Meters	X99	Other Subpart X	Any Unit of Measure Listed Below	
S99	Other Storage	Any Unit of Measure Listed Below				
<i>Treatment:</i>						
T01	Tank	Gallons Per Day or Liters Per Day				
T02	Surface Impoundment	Gallons Per Day or Liters Per Day				
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; or Btu's Per Hour				
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				
T80	Boller	Gallons or Liters				
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				
T82	Lime Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				
T83	Aggregate Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				
T84	Phosphate Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				
T85	Coke Oven	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				
T86	Blast Furnace	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour				

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons .....	G	Short Tons Per Hour .....	D	Cubic Yards .....	Y
Gallons Per Hour .....	E	Metric Tons Per Hour .....	W	Cubic Meters .....	C
Gallons Per Day .....	U	Short Tons Per Day .....	N	Acres .....	B
Liters .....	L	Metric Tons Per Day .....	S	Acre-foot .....	A
Liters Per Hour .....	H	Pounds Per Hour .....	J	Hectares .....	Q
Liters Per Day .....	V	Kilograms Per Hour .....	R	Hectare-meter .....	F
				Btu's Per Hour .....	I

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Form Approved, OMB No. 2050-0034 Expires 9-30-96  
 GSA No. 0248-EPA-07

EPA I.D. Number (Enter from page 1)	Secondary ID Number (Enter from page 1)
CAD000072751	

**XII. Process Codes and Design Capabilities (Continued)**

EXAMPLE FOR COMPLETING ITEM XII (Shown in line number X-1 below): A facility has a storage tank, which can hold 533,788 gallons.

Line Number	A. Process Code (From list above)	B. PROCESS DESIGN CAPACITY		C. Process Total Number Of Units	For Official Use Only
		1. Amount (Specify)	2. Unit Of Measure (Enter code)		
X 1	S 0 2	5 3 3 7 8 8	G	0 0 1	
1	NA	NA	NA	NA	
2					
3					
4					
5					
6					
7					
8					
9					
1 0					
1 1					
1 2					
1 3					

NOTE: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in Item XIII.

**XIII. Other Processes (Follow instructions from Item XII for D99, S99, T04 and X99 process codes)**

Line Number (Enter as in seg w/XII)	A. Process Code (From list above)	B. PROCESS DESIGN CAPACITY		C. Process Total Number Of Units	D. Description Of Process
		1. Amount (Specify)	2. Unit Of Measure (Enter code)		
X 1	T 0 4				In-situ Vitriification
1	NA	NA	NA	NA	
					NA
2					
3					
4					

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 GSA No. 0248-EPA-01

EPA I.D. Number (Enter from page 1)	Secondary ID Number (Enter from page 1)
CAD000072751	

XIV. Description of Hazardous Wastes

- A. EPA HAZARDOUS WASTE NUMBER - Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.
- B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- C. UNIT OF MEASURE - For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in item XII A, on page 3 to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in item XII A, on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

- Enter the first two as described above.
- Enter "000" in the extreme right box of item XIV-D(1).
- Enter in the space provided on page 7, item XIV-E, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form (D.(2)).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

- Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
- Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM XIV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number	A. EPA HAZARD WASTE NO. (Enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (Enter code)	D. PROCESS									
				(1) PROCESS CODES (Enter code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))					
X 1	K 0 5 4	900	P	T	0	3	D	8	0				
X 2	D 0 0 2	400	P	T	0	3	D	8	0				
X 3	D 0 0 1	100	P	T	0	3	D	8	0				
X 4	D 0 0 2												Included With Above

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Form Approved, OMB No. 2050-0034 Expires 9-30-95  
 GSA No. 0248-EPA-07

EPA ID Number (Enter from page 1)										Secondary ID Number (Enter from page 1)									
CAD000072751																			

XIV. Description of Hazardous Wastes (Continued)												
Line Number	A. EPA HAZARDOUS WASTE NO. (Enter code)		B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (Enter code)	D. PROCESSES							
					(1) PROCESS CODES (Enter code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))			
1		NA	NA	NA	NA							NA
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
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Form Approved OMB No. 2050-0037 Expires 9-30-96  
 GSA No. 3243-EPA-07

EPA I.D. Number (Enter from page 1)	Secondary ID Number (Enter from page 1)
CAD000072751	

**XV. Map**

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

**XVI. Facility Drawing**

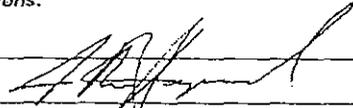
All existing facilities must include a scale drawing of the facility (see instructions for more detail).

**XVII. Photographs**

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

**XVIII. Certification(s)**

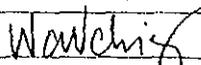
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner Signature  Date Signed 7/6/01

Name and Official Title (Type or print) J.W. HAYWOOD, VICE PRESIDENT, WEST Coast Refining

Owner Signature \_\_\_\_\_ Date Signed \_\_\_\_\_

Name and Official Title (Type or print) \_\_\_\_\_

Operator Signature  Date Signed 4/26/02

Name and Official Title (Type or print) Willie C.W. CHIANG, General Manager, Tosco Refining Company

Operator Signature \_\_\_\_\_ Date Signed \_\_\_\_\_

Name and Official Title (Type or print) \_\_\_\_\_

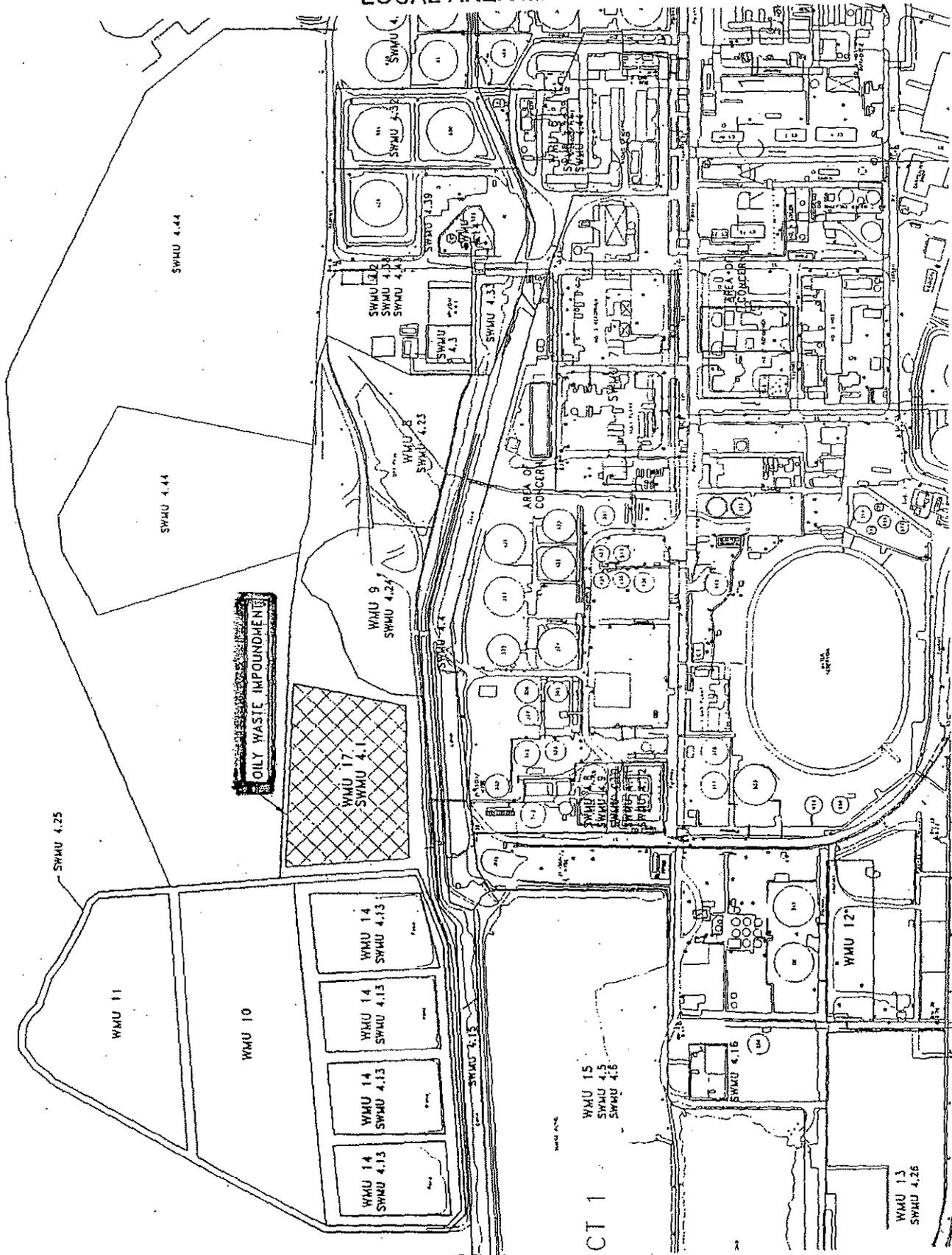
**XIX. Comments**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Note: Mail completed form to the appropriate EPA Regional or State Office. (Refer to instructions for more information)



### ATTACHMENT 3 LOCAL AREA MAP



**ATTACHMENT 4  
PERMIT MODIFICATION HISTORY**

**July 3, 2002: Class 1 Modification**

This permit was modified to reflect the transfer of ownership from the Tosco Refining Company to the Ultramar Inc., located at 150 Solano Way in Martinez. Ultramar Inc. purchased the assets of Tosco Refining Company at the above described location on September 1, 2000. DTSC received a request for a Class 1 Modification to modify the Post-Closure Permit to reflect the change in ownership in a letter dated April 29, 2002.

(K:\tosco\postclsf)



## Department of Toxic Substances Control



Winston H. Hickox  
Agency Secretary  
California Environmental  
Protection Agency

Edwin F. Lowry, Director  
700 Heinz Avenue, Suite 200  
Berkeley, California 94710-2721

Gray Davis  
Governor

April 1, 2003

Ms. Cindy L. Smith  
Site Manager  
Health, Environment and Safety  
Phillips Petroleum Company  
13-C4 Phillips Building  
Bartlesville, Oklahoma 74004

Mr. Hilding Spradlin  
Senior Environmental Engineer  
Tesoro Refining & Marketing Company  
150 Solano Way  
Martinez, CA 94553

**CHANGE IN OWNERSHIP AND OPERATOR NAME, CLASS 1\* PERMIT  
MODIFICATION, HAZARDOUS WASTE FACILITY POST-CLOSURE PERMIT,  
TESORO REFINING & MARKETING COMPANY, GOLDEN EAGLE REFINERY, 150  
SOLANO WAY, MARTINEZ, CALIFORNIA, EPA ID NO. CAD 000 072 751**

Dear Mr. Spradlin and Ms. Smith:

In a letter dated May 28, 2002 Tesoro Refining and Marketing Company (Tesoro) informed the Department of Toxic Substances Control (DTSC) of the purchase of the Golden Eagle Refinery at 150 Solano Way, Martinez from Ultramar Inc. Tesoro requested a modification to the existing Hazardous Waste Facility Post-Closure permit (Number NC 98-NC-005) to reflect this change in ownership.

In a letter dated October 2, 2002 ConocoPhillips informed DTSC that as a result of corporate mergers, the name of the operator of the Hazardous Waste Post-Closure permit would change from Tosco Corporation to ConocoPhillips.

DTSC has reviewed these requests and has modified the post-closure permit accordingly for this facility. Attached are copies of the modified permit.

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at [www.dtsc.ca.gov](http://www.dtsc.ca.gov).*

Ms. Cindy Smith and Mr. Hilding Spradlin  
April 1, 2003  
Page 2

If you have any questions please contact me at 510/540-3972 or Andy Berna-Hicks of my staff at 510/540-3956.

Sincerely,  
//Original signed by//

Salvatore Ciriello  
Supervising Hazardous Substances Engineer  
Standardized Permits and Corrective Action Branch

Enclosure:

cc: Ms. Patti Barni  
Statewide Compliance Branch  
Department of Toxic Substances Control  
700 Heinz Avenue  
Berkeley, CA 94710

David Wright / Bridget Fitzenry  
Permits Streamlining Branch  
Department of Toxic Substances Control  
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Steve Armann, Chief  
RCRA Permits Section  
United States Environmental Protection Agency  
75 Hawthorne St.  
San Francisco, CA 94105



## Department of Toxic Substances Control



Winston H. Hickox  
Secretary for  
Environmental  
Protection

Edwin F. Lowry, Director  
700 Heinz Ave, Suite 200  
Berkeley, California 94710

Gray Davis  
Governor

**NOTICE OF PERMIT MODIFICATION DECISION**  
**HAZARDOUS WASTE FACILITY POST-CLOSURE PERMIT**  
**TESORO REFINING & MARKETING COMPANY**  
**Golden Eagle Refinery , 150 SOLANO WAY**  
**MARTINEZ , CALIFORNIA 94533**  
**EPA ID No. CAD 000072751**  
**Decision Date: April 1, 2003**

### TO WHOM IT MAY CONCERN:

In accordance with the California Health and Safety Code, Division 20, Chapter 6.5, and the California Code of Regulations, title 22, section 66270.40, the Department of Toxic Substances Control (DTSC) has made a decision to approve a modification to the hazardous waste facility post-closure permit for the Tesoro Refining & Marketing Company (Tesoro) , Martinez, California.

This Class 1\* modification approves the transfer of ownership of this post-closure permit from Ultramar Inc. (the current facility owner) to Tesoro which purchased the assets of the Golden Eagle Refinery in May 2002. In addition, the operator of the post-closure permit is changed from Tosco Refining Company to ConocoPhillips as a result of corporate mergers. The post-closure permit authorizes long term groundwater monitoring in the vicinity of a former surface impoundment at the facility. A Class 1\* permit modification requires the review and approval of the Department of Toxic Substances Control.

The permit modification became effective on April 1, 2003. The expiration date of the post-closure permit is July 30, 2008.

### Availability of Documents:

The complete administrative record for this facility is available for review by the public at the following location:

DTSC File Room, 700 Heinz Avenue  
Berkeley, CA 94710  
(510) 540-3800  
<http://www.dtsc.ca.gov>

California Environmental Protection Agency  
Department of Toxic Substances Control



HAZARDOUS WASTE FACILITY  
POST-CLOSURE PERMIT

Permit Number: 98-NC-005

Facility Name: Golden Eagle Refinery  
150 Solano Way  
Martinez, Contra Costa County,  
California, 94533  
Owner Name Tesoro Refining & Marketing Co.  
150 Solano Way  
Martinez, California 94533  
Operator Name: ConocoPhillips  
411 South Keeler  
Bartlesville, Oklahoma 74004

Facility EPA ID Number: CAD 000 072 751

Effective Date: July 30, 1998

Expiration Date: July 30, 2008

Date Modified: April 1, 2003

Modification No. MODNC2-040103-A

Pursuant to Section 66270.42, Title 22, Division 4.5, California Code of Regulations, the Hazardous Waste Facility Post-Closure Permit effective July 30, 1998 is hereby modified to address a change of ownership and revise the page numbering/header format. Pages 1 through 24 are affected by this modification. The revised permit, Attachment "A" consists of 24 pages.

**//Original signed by//**

Mohinder S. Sandhu, P.E., Chief  
Standardized Permits and  
Corrective Action Branch  
Department of Toxic Substances Control

Date: 4/01/2003

ATTACHMENT "A"  
TESORO REFINING & MARKETING COMPANY  
GOLDEN EAGLE REFINERY  
150 SOLANO WAY, MARTINEZ, CALIFORNIA 94553

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## ATTACHMENT "A"

### PART I. DEFINITIONS

1. "DTSC" as used in this Permit means the California Environmental Protection Agency, Department of Toxic Substances Control.
2. "Permittee" as used in this Permit means the Owner and Operator.
3. "HSC" as used in this Permit means the Health and Safety Code.
4. "CCR" as used in this Permit means the California Code of Regulations.
5. Unless explicitly stated otherwise, all references to items in this Permit shall refer only to items occurring within the same part. ---

## PART II. DESCRIPTION OF THE FACILITY AND OWNERSHIP

### 1. OWNER

The owner of the facility is Tesoro Refining and Marketing Company, Golden Eagle Refinery (hereafter "owner").

### 2. OPERATOR

The operator of the facility is Tosco Refining Company (hereafter "Operator"), 1380 San Pablo Avenue, Rodeo, CA 94572-1299. Tosco Corporation will be the operator of the surface impoundment units and will implement Post-Closure Permit cap maintenance, groundwater monitoring, and continue to maintain the financial assurance mechanism.

### 3. LOCATION

Tesoro, Golden Eagle Refinery is located in Martinez, California, south of the Suisun Bay, east of the Pacheco Slough and Interstate 680, north of urban and industrial land along State Route 4, and west of open space land consisting of marshes and water ways. The facility is located in Contra Costa County, California, described in the Grant Deed Recorded April 1, 1976, in Contra Costa County Records as Instrument Number 33617 at Book 7810.

### 4. DESCRIPTION

The Oily-Waste Impoundments (hereafter, OWIs), are two rectangular-shaped ponds located within Tract 1 of the Tesoro, Golden Eagle Refinery. The OWIs cover approximately four acres within the approximately 2,100-acre site of the Golden Eagle Refinery in Martinez. The OWIs were removed from service in December 1983 and officially closed by the California Department of Health Services on December 6, 1988 under applicable federal and state hazardous waste landfill closure requirements. At the time of their closure, both ponds depths were approximately 6 feet below ground surface. The sizes (width and length) of the east and the west ponds were 425 feet x 150 feet and 500 feet x 175 feet respectively.

The OWIs closure in 1988 included the removal of sludge and soils, and the installation of a cap. The cap is composed of two-foot low-permeability clay. There is a lower layer of polypropylene geotextile fabric, an 8-inch corrugated PVC subdrain pipe system, a layer of geotextile fabric, an 8-inch corrugated PVC subdrain pipe system, and a top of geotextile fabric. The uppermost layers of caps are vegetated soil covers of 2-foot minimum thickness for reduced infiltration and to enhance flow of surface runoff toward their drainage ditches.

The permittee has performed and is required to continue to perform annual groundwater monitoring and maintenance for the OWIs in accordance with the requirements of Title 22 California Code of Regulations, Division 4.5.

5. FACILITY SIZE AND TYPE FOR FEES

The size of the facility is large for the purpose of activity fees associated with the Post-Closure Permit for these two former surface impoundments.

### PART III. GENERAL CONDITIONS

#### 1. PERMIT APPLICATION DOCUMENTS

- (a) The first Part "A" Application dated was submitted to DTSC. on November 19, 1980 and the revised Part A Application was submitted to DTSC. on March 30, 1993 for the OWIs. On June 21, 1983 the revised Part "A" identified the OWIs as the only regulated units. A Part "B" Application (Operation Plan) for the OWIs was submitted to the U.S. EPA, in August 1985. A final permit determination was not made on that Part "B" application. The OWIs were certified closed (with waste in place) by the California Department of Health Services and the U. S. EPA on December 6, 1988. A post-closure permit application was submitted to DTSC on February 21, 1997. A post-closure permit for the OWIs was approved by DTSC on June 30, 1998 which is effective for a ten-year period.

#### 2. EFFECT OF PERMIT

- (a) The Permittee shall comply with the provisions of the California Health and Safety Code, and Division 4.5 of Title 22, California Code of Regulations. The issuance of this Permit by DTSC does not release the Permittee from any liability or duty imposed by federal or state statutes or regulations or local ordinances, except the obligation to obtain this Permit.
- (b) The Permittee is permitted to conduct post-closure care and groundwater monitoring at the Tesoro Golden Eagle Refinery facility with respect to the OWIs. Any activities not specifically authorized in this Permit are strictly prohibited.
- (c) Compliance with the terms of this Permit does not constitute a defense to any action brought under any other law governing protection of public health or the environment, including, but not limited to, one brought for any imminent and substantial endangerment to human health or the environment.
- (d) DTSC's issuance of this Permit does not prevent DTSC. from adopting or amending regulations that impose additional or more stringent requirements than those in existence at the time this Permit is issued and does not prevent the enforcement of these requirements against the Permittee.
- (e) Failure to comply with any term or condition set forth in the Permit in the time or manner specified herein will subject the Permittee to possible

- enforcement action including but not limited to penalties pursuant to California Health and Safety Code, Section 25187.
- (f) In addition, failure to submit any information required in connection with the Permit, or falsification and/or misrepresentation of any submitted information, is grounds for revocation of this Permit (Title 22, California Code of Regulations, Section 66270.43).
  - (g) In case of conflicts between the Operation Plan and the Permit, the Permit conditions take precedence.
  - (h) This Permit includes and incorporates by reference any conditions of waste discharge requirements issued by the State Water Resources Control Board or any of the California Regional Water Quality Control Boards and any conditions imposed pursuant to section 13227 of the Water Code.
  - (i) The OWIs at the Golden Eagle Refinery are subject to the requirements of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., (RCRA). The United States Environmental Protection Agency has authorized the State of California to permit RCRA facilities in California. This Permit is issued by DTSC in lieu of a RCRA permit.
  - (j) Pursuant to California Health and Safety Code Section 25200.10, DTSC shall require corrective action for all releases of hazardous waste or constituents from a solid waste management unit or a hazardous waste management unit regardless of the time at which waste was released. The U.S. EPA, Region IX issued the Amended Administrative Order RCRA09-89-0013A under Section 3008(h) of RCRA U.S.C. Section 6928(h) on September 6, 1990 for the purpose of addressing corrective action of releases at the Tosco Avon Refinery. Such order and subsequent amendments are hereby incorporated as condition of this Permit by reference, as required by the Health and Safety Code.
  - (k) Where necessary, DTSC may utilize any of the information provided to it to assist in any determination as to whether to require the Permittee to institute additional corrective actions pursuant to and as may be authorized under California Health and Safety Code Section 25200.10.
  - (l) DTSC has determined that the Part B Post-Closure Permit Application dated February 21, 1997, with its subsequent revisions submitted to DTSC and the amendments listed in Attachment B, are consistent with the other requirements of this Permit, including but not limited to the requirements imposed by the regulations cited in Attachment A. Therefore, the February 21, 1997 Part-B Post-Closure Permit Application, as modified in this Permit, is hereby incorporated into the requirements of

this permit.

- (m) Unless and until changed by written notification to the Permittee from the Standardized Permits and Corrective Action Branch Chief, all reports, notifications, or other submissions which are required by this Permit to be sent or given to the Standardized Permit and Corrective Action Branch Chief shall be sent by certified mail or hand delivered, during working hours to the office of:

Standardized Permit and Corrective Action Branch Chief  
Department of Toxic Substances Control  
700 Heinz Avenue, Suite 200  
Berkeley, California 94710

- (n) The requirements of this Permit are several, and if any requirement of this Permit, or the application of any such requirement to any circumstance, is held invalid, the application of such requirement to other circumstances and the remainder of this Permit shall not be affected thereby.

### 3. COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

A Negative Declaration for this project has been prepared in the accordance with the requirements of Public Resources Code Section 21000 et seq. and the CEQA Guidelines, Section 15070 et seq. of Title 14, California Code of Regulations. Based on the Negative Declaration, DTSC finds that the project will not have any significant adverse effects. DTSC certified that the Negative Declaration complied with the provisions of CEQA.

### 4. ENVIRONMENTAL MONITORING

The permittee shall comply with all applicable provisions of Chapter 6.5 of Division 20 of the California Health and Safety Code and Title 22, California Code Regulations, Division 4.5, including without limitation, the regulations expressly cited in the following:

66260.10	Definitions
66264.14	Security Requirements
66264.15	General Inspection Requirements
66260.16	Personnel Training Program Requirements
66264.31	Design and Operation of the Facility
66264.54	Amendment of Contingency Plan
66264.74	Records Availability, Retention, Disposition
66264.91	Criteria for Implementing Required Programs
66264.92	Water Quality Protection Standard
66264.93	Constituents of Concern
66264.94	Concentration Limits

- 66264.95 Monitoring Points and Points of Compliance
- 66264.96 Compliance Period Determination
- 66264.97 General Water Quality and System Requirements
- 66264.98 Detection Monitoring program Requirements
- 66264.99 Evaluation Monitoring Program Requirements
- 66264.100 Corrective Action Program Requirements
- 66264.101 Corrective Action for Waste Management Units Requirements
- 66264.110 Applicability of Post-Closure Requirements
- 66264.117 Post-Closure Care Requirements and Use of Property
- 66264.118 Post-Closure Plan and Amendments
- 66264.119 Post-Closure Notice Requirements
- 66264.120 Certification Completion of Post-Closure Care
- 66264.140 Applicability of Financial Requirements
- 66260.144 Cost Estimate for Post-Closure Care
- 66264.145 Post-Closure Care Financial Assurance Requirements
- 66264.148 Financial Assurance Requirements in the Event of Bankruptcy
- 66264.228 Post-Closure Care Requirements
- 66264.310 Landfill Cover Requirements
- 66270.10 General Permit Requirements
- 66270.11 Signatory Requirements
- 66270.12 Confidentiality of Information
- 66270.30 Permit Conditions Applicable to All Permits
- 66270.31 Permit Monitoring Requirements
- 66270.32 Establishing Permit Conditions
- 66270.40 Transfer of Permits
- 66270.41 Modification, Revocation, Reissuance of Permits
- 66270.42 Permit Modification at the Request of the Permittee
- 66270.43 Termination and Denial of Permits
- 66270.50 Duration of Permits
- 66270.51 Continuation of Expiring Permits

5. MODIFICATIONSTO THE PART B PERMIT APPLICATION

The following are modifications to the Part B Permit Application.

- (1) Pursuant to California Code of Regulations, Title 22 (22 CCR), Section 66264.228(k) the frequency of inspections and surveys performed by a qualified registered engineer shall be annually.
- (2) Pursuant to 22 CCR, Section 66264.228(p) the frequency of surveys performed by a licensed land surveyor, to determine the horizontal location and elevation of the cover and other features shall be annually.
- (3) Pursuant to 22 CCR, Section 66264.228(r), the owner or operator shall submit annual reports to DTSC, describing measures undertaken at the site during the post-closure maintenance period.

- (4) The frequency of visual inspections by qualified the facility Operator personnel shall be formed during the months of January, April, quarterly. These inspections will be per July and October. All inspections will performed in order to assess needed maintenance to the unit.
- (5) In addition to the periodic inspections described in item 4 above, the permittee shall perform:
- a. A visual inspection within three days after a 25-year 24-hour rainfall.
  - b. An inspection pursuant to the conditions of a significant earthquake, a 100-year rain fall, or other events, which may cause substantial damage to the OWIs.
- (6) Pursuant to 22 CCR, Section 66265.117(b)(2)(B), the post-closure care period shall extend to 30 years from the effective date of the permit.
- (7) Within 45 days of the effective date of this permit, the permittee shall submit to the Standardized Permit and Corrective Action Branch Chief a new post-closure cost estimate. The new post-closure cost estimate shall be based on 30 years from the effective date of the permit.
- (8) Within 60 days of DTSC's approval of the revised post-closure cost estimate, the permittee shall submit to the Facility Permitting Branch Chief documentation of Financial Assurance in at least the amount of the Post-closure cost estimate for a 30-year period.
- (9) The Operator shall notify DTSC. in writing within 30 days of the effective date of this permit, that at least one employee has been designated as an Emergency Coordinator for the Owls in accordance with 22 CCR, Sections 66264.55 and 66264.52(b). The notification shall include name(s), address(es) and phone number(s) of the Emergency Coordinator(s). The name or names of the Emergency Coordinator(s) and how they could be reached in the event of an emergency shall be kept up to date at Operator's environmental affairs office and shall be readily available for inspection upon request by DTSC. inspectors.
- (10) Within 30 days of the effective date of this permit, Tosco shall submit to the Facility Permitting, Branch Chief for DTSC's approval a detailed workplan including a schedule for the implementation of the proposed work to repair the crack of the soil cap in the northwest area of the unit.

6. POST-EARTHQUAKE AND POST-DISASTER INSPECTIONS

- (1) Safety of personnel must be assured in all post-earthquake and post-disaster inspection activities. A qualified site safety person shall conduct

periodic assessment regarding the conditions encountered during the inspection and any potential hazards to the inspection team potentially unstable soil shall be avoided, unless the site safety person determines that it is safe to proceed. Ambient air shall be monitored for site contaminants and for possible releases from other nearby facilities. Locations monitored shall be recorded in the inspection log. For safety purposes, remote inspection (e.g., with binoculars) must be done prior to any rid-on or walk-on inspection.

(2) Inspection trigger. A post-earthquake inspection shall be required according to the following table. An inspection will be triggered when the earthquake is of "M" magnitude in the Richter scale and the earthquake epicenter is within a distance of "D" miles from the facility.

M	D	M	D	M	D	M	D
<4	see note	5.1	22	6.3	42	7.5	69
4.0	10	5.2	23	6.4	43	7.6	71
4.1	11	5.3	25	6.5	45	7.7	73
4.2	12	5.4	27	6.6	47	7.8	76
4.3	13	5.5	28	6.7	50	7.9	78
4.4	14	5.6	30	6.8	52	8.0	80
4.5	15	5.7	32	6.9	54	8.1	83
4.6	16	5.8	33	7.0	57	8.2	85
4.7	17	5.9	35	7.1	59	8.3	87
4.8	18	6.0	37	7.2	61	8.4	90
4.9	19	6.1	38	7.3	64	8.5	92
5.0	20	6.2	40	7.4	66		

Note: For earthquakes less than 4.0 Richter magnitude, if significant damage has been reported within 10 miles radius from the facility, a post-earthquake inspection is required.

A facility inspection shall be performed after a 100-year rainfall. At the discretion of the DTSC, inspection may be triggered after other events, which cause substantial damages in the area of the facility.

DTSC may elect to change the triggering criteria, based on revised guidance of public agencies and the recommendations of the scientific and engineering community. Such modification shall be done in accordance with Article 4 of Chapter 20, Division 4.5 of Title 22 California Code of Regulations.

(3) A notification form must be received by DTSC within seven (7) days of an earthquake or a precipitation event which has triggered an inspection. The notification form shall be sent to the Standardized Permit and Corrective Action Branch Chief.

A template for the following information shall be prepared for use in the event of an earthquake or other triggering event. The form shall be prepared within 90 days of the effective date of the Permit. The form must include facility information, earthquake information (or information regarding the other triggering event), and agency contacts, as detailed below.

(3.1) Facility information

- Name and address of the facility.
- United States Environmental Protection Agency identification number (USEPA ID number).
- Description of site to be inspected (i.e., two closed oily waste ponds and adjacent areas).
- Location of site to be inspected (cite names of surrounding access roads).
- Date and time of proposed inspection, if it cannot be performed within 3 days of the triggering event.
- Facility contacts (names, telephone numbers, position).
- Inspectors: facility personnel who will be performing the inspection (names, telephone numbers, position). The inspection team shall consist of a minimum of two persons; three persons are preferred. The inspection team must include at least one licensed civil engineer, certified engineering geologist, or registered geologist. One member of the inspection team must be designated as the site safety person.
- Notifier: person making the notification (name, telephone number, and position).
- Date of notifications.

(3.2) Earthquake information.

- Fault name.
- Richter magnitude (other magnitudes also if available).
- Date and time of occurrence (Military Time and Pacific Standard Time).
- Location of the quake epicenter in north latitude and west longitude.
- Depth of the quake hypocenter.
- Description of the location of the epicenter in terms of landmarks (e.g., 45 miles northeast of Eureka).
- Area of influence of the quake - to be estimated from the table (item (2), above) and given as a radius in miles, unless better information is

available.

- Estimated distance and direction of the facility from the epicenter.
- Notes regarding the potential for aftershocks.
- Remarks on damage due to the quake as reported from other sources.
- Notes regarding any changes or updates to original estimates of earthquake location, magnitude, etc.
- Sources of earthquake information (e.g., US Geological Survey).

(3.3) Precipitation Information.

- Dates of the rainfall.
- A rainfall hydrograph from the facility or from the nearest monitoring station.
- Map showing: extent of flooding in the facility area, with failed levees or roads noted.

(3.4) Agency contacts. Contacts in DTSC, the county, the city, and others as appropriate (names, phone numbers, fax numbers, positions).

(3.5) Requests for postponement of inspection will be considered by the DTSC. Request for postponement shall include (in addition to the other items required on the notification form); the reasons for postponement (e.g., concern for safety of personnel, the fact that no damages have been reported in the facility area, etc.), the date of the proposed inspection, and the date of the next regular inspection. If a request for postponement is made, the notification form must be received by the DTSC within three days of the earthquake or other triggering event (not seven days). A request for postponement must be signed by the designated plant manager (name, phone number, position).

(4.0) Inspection.

The inspection must take place within three days of the earthquake or 100-year rainfall. The two closed refinery ponds must be inspected for any indication of damages due to surrounding to the earthquake or to the 100-year rainfall. Damages to access roads and surrounding structures must also be noted.

(4.1) A topographic map shall be a guide for the inspection and a primary record of the inspection. The topographic map must include the following: site name and location, site boundary, names of access roads and other distinguishing features in the site vicinity (e.g., oily waste canal, sludge drying ponds), locations and names of site wells, drainage features (drainage ditches and canals, culverts, subsurface drainage system in the ponds), benchmarks, fences, gates, and the locations of the edges (i.e., keys) of the geotextile and liner system.

Damages observed during the inspection must be noted on the topographic map, using standard notation.

- (4.2) Photographs shall be primary records of the inspection. Any significant damages at the site or along the access roads to the site must be photographed. The complete circuit of the ponds must be photographed.
- (4.3) Any features suggestive of soil failure at the site or along access roads to the site must be shown on the topographic map, and described in the log book. These include: washouts, scours, cracks, slumps, slides, sand boils, differential settlement, bulges, seeps, sags, changes in drainage, debris, tilting, potholes, fence disorientation, ridge warps, side warps, etc.
- (4.4) Drainage. The following, must be recorded with respect to drainage ditches: sediment, color, odor, flow direction, and approximate flow rate. The presence/absence of flow at culverts must be noted, and any potential blockade of flow. Surface water flow directions and any evidence of surface erosion must be recorded. The line of the subsurface piping must be inspected for: daylighting, subsidence, piping, ponding, etc. Failed levees in the site area shall be noted on the map.
- (4.5) Containment system. The circuit of the ponds and adjacent area must be inspected for any daylighting of the liner materials, including geotextiles, gravel, and HDPE liner. Any scouring, erosion of soil, or breaching of vegetative cover must be noted. Animal burrows and other effects (e.g., water exiting from burrows) must be noted. The condition of the vegetative cover shall be described.
- (4.6) Wells. Air monitoring results at the well head (i.e., oxygen readings, PID readings) must be recorded along with depth of well, depth of water, color, odor, sheen, product, etc. The depth of any well obstructions and any evidence of settlement in the well area must be recorded. All equipment used in wells must be properly decontaminated.
- (4.7) Benchmarks must be inspected for any evidence of damage or displacement. Damaged benchmarks shall be resurveyed.
- (5.0) Inspection Report And Damage Assessment (IRDA)

An IRDA must be received by the DTSC within fifteen days after the earthquake. Two copies of the IRDA must be sent to the Standardized Permit and Corrective Action Branch Chief.

The IRDA must include: a description of damages observed, a description of all releases, a summary of corrective measures undertaken to stabilize the site, and recommendations for additional work (if appropriate). All repairs must be pre-

approved by the site safety person. Repairs shall focus on preventing releases and controlling the flow of water. Photographs taken before and after corrective measures must be included. The IRDA must contain: the notification form, the topographic map with field notations, photographs, a map of local faults (when the triggering event is an earthquake), a map of flooded areas (when the triggering event is a rainfall), and copies of field log, entries from the inspection.

For more extensive repairs, the IRDA shall contain proposed corrective actions and a schedule of work.

The IRDA shall be signed by the designated plant manager and by a licensed engineer, a certified engineering geologist, or a registered Geologist. If significant repairs are necessary, an engineer's signature is required.

## PART VI - CORRECTIVE ACTION

1. The permittee is required to perform corrective action under the directives of the San Francisco Bay Regional Water Quality Control Board (RWQCB) for the entire refinery site in accordance with Waste Discharge Requirement Orders.
2. In the event the Permittee identifies an immediate or potential threat to human health and/or the environment, discovers new releases of hazardous waste and/or hazardous constituents, or discovers new Solid Waste Management Units (SWMUs) not previously identified, the Permittee shall notify DTSC orally within 24 hours of discovery and notify DTSC in writing within 10 days of such discovery summarizing the findings including the immediacy and magnitude of any potential threat to human health and/or the environment.
3. DTSC may require the Permittee to investigate, mitigate and/or take other applicable action to address any immediate or potential threats to human health and/or the environment and newly identified releases of hazardous waste and/or hazardous constituents. For newly identified SWMUs, the Permittee is required to conduct corrective action. Corrective action will be carried out either under a Corrective Action Consent Agreement or Unilateral Corrective Action Order pursuant to Health and Safety Code, Section 25187.