

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. R4-2003-0150
NPDES PERMIT NO. CA0057037

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE REQUIREMENTS
FOR
ULTRAMAR, INC.
MARINE TANK FARM

The California Regional Water Quality Board, Los Angeles Region (hereinafter Regional Board), finds:

Background

1. Ultramar, Inc. (hereinafter Ultramar or Discharger) discharges wastewater from its Marine Tank Farm (MTF or Facility) Facility under waste discharge requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit contained in Order No. 97-003 (NPDES Permit No. CA0057037, CI-6155) adopted by the Regional Board on January 27, 1997. Order No. 97-003 expired on December 10, 2001.
2. Formerly, the Los Angeles Department of Water and Power (LADWP or Owner) owned and operated the Facility. In a letter dated February 21, 2001, LADWP notified the Regional Board of a change in operator because Ultramar assumed the operations of the Facility; LADWP still owns the facility. Ultramar has filed a report of waste discharge (ROWD) and has applied for renewal of its WDRs and NPDES permit. Ultramar took over the lease of MTF in July 2001.

Purpose of Order

3. The purpose of this NPDES permit is to renew the WDRs for the MTF Facility. This NPDES permit regulates the discharge of rainfall runoff and fire protection system test water through Discharge Serial No. 001 to Los Angeles Inner Harbor, a water of the United States. The point of discharge of storm water runoff and fire protection system test water is from a storm drain in Fries Avenue and is located at Latitude 33°46'10" North, Longitude 118°15'48" West.

Facility Description

4. Ultramar, a Valero Energy Corporation Company located in Wilmington, California, operates the Marine Tank Farm Facility at LADWP's Harbor Generating Station located at 130 West "A" Street, Wilmington, California. The Facility is a petroleum refining and fuel storage facility. Figure 1 shows the Facility location map.

5. The renewal application package stated plans to demolish an existing 100,000-barrel fuel oil tank and its containment area. In addition, the existing skim pond that serves the permitted area was to be relocated or removed. During an NPDES permit compliance evaluation inspection conducted on August 25, 2003, it was noted that the skim pond has been replaced with an in-ground oil/water separator located at the northwest corner of the containment dike for the 30,000-barrel storage tank (199-TK-301). Figure 2 provides a facility site map.
6. The February 21, 2001 letter from LADWP to the Regional Board states the area where the skim pond was located was to be redeveloped to accommodate the installation of gas combustion turbines. The letter also states that the skim pond was going to be relocated. However, the letter also states that discharges of storm water associated with the redevelopment and future operation of the power plant will be addressed under separate permitting activities, and that the northwest area of the MTF will no longer be included under the individual NPDES permit. The remaining area, referred to as the MTF, covered under this individual permit, will consist of two 405,000-barrel tanks and one 30,000-barrel cutter stock tank.
7. The MTF currently stores residual fuel oil in three storage tanks (two 405,000-barrel tanks and one 30,000-barrel cutter stock tank) in a tank farm area surrounded by a 15-foot earthen dike. Intermediate oil products are received by pipeline and are pumped as needed to the Wilmington Refinery. The site is manned or monitored 24 hours per day by operators that serve the MTF and two other nearby tank farms. The facility was modified during early 2000. A 100,000-barrel and two 80,000-barrel storage tanks were demolished and a portion of the site was sold for installation of a gas turbine not operated by Ultramar (it is owned and operated by LADWP).

Discharge Description

8. Ultramar intermittently discharges up to 600,000 gallons per day (gpd) of storm water runoff from the tank farm area. The August 25, 2003 inspection report states that storm water discharges from the site have been intermittent and infrequent. Each of the oil storage tanks is equipped with earthen secondary containment dikes. Storm water collected in the dikes resulting from minor to moderate rainfall events is allowed to infiltrate into the soil. Storm water is discharged through an oil/water separator when it accumulates to levels in the dikes that could interfere with tank farm operations. The facility reports that in more than one year of operation of the oil/water separator, oil and sediment have not collected to levels requiring removal. Two oil pump stations are equipped with concrete secondary containment structures suitable to collect minor releases of oil from pump station operations.
9. Ultramar maintains a fire prevention system for the storage tank farm area. The site fire protection system is tested weekly by spraying fire protection water into the containment dikes. Up to 4,000 gallons per day of fire prevention system test water is also directed to the oil-water separator before discharge to the storm drain located along Fries Avenue.

10. Storm water runoff and fire protection system test water are commingled, treated through the oil/water separator, then directed through an underground private storm water system along Fries Avenue through Discharge Serial No. 001 to Los Angeles Inner Harbor, a water of the United States. The discharge to Los Angeles Inner Harbor occurs at Berth 182, within the estuary.

Storm Water Management

11. The objective of this Order is to protect the beneficial uses of receiving waters. To meet this objective, this Order requires Ultramar to develop a Storm Water Pollution Prevention Plan (SWPPP) consistent with the SWPPP requirements for best management practices portion in the NPDES General Permit for Storm Water Discharges Associated with Industrial Activity [State Water Resources Control Board (State Board) Order No. 97-03-DWQ, NPDES Permit No. CAS000001]. The SWPPP will outline site-specific management practices for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged into surface waters.
12. The SWPPP shall also specify Best Management Practices (BMPs) that will be implemented to reduce the discharge of pollutants in storm water and non-storm to the maximum extent practicable. Further, the Discharger shall assure that storm water and non-storm discharges from the Facility would neither cause, nor contribute to, an exceedance of water quality standards and objectives, nor create conditions of nuisance in the receiving water.

Applicable Plans, Policies, and Regulations

13. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) as amended on January 27, 1997 by Regional Board Resolution No. 97-02. The Basin Plan (i) designates beneficial uses for surface and groundwaters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state antidegradation policy (*Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Board Resolution No. 68-16, October 28, 1968), and (iii) describes implementation programs to protect all waters in the Region. In addition, the Basin Plan incorporates (by reference) applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. The Regional Board prepared the 1994 update of the Basin Plan to be consistent with all previously adopted State and Regional Board plans and policies. This Order implements the plans, policies and provisions of the Regional Board's Basin Plan.
14. The Basin Plan contains water quality objectives and beneficial uses for inland surface waters and for the Pacific Ocean. Inland surface waters consist of rivers, streams, lakes, reservoirs, and inland wetlands. Beneficial uses for a surface water can be designated, whether or not they have been attained on a waterbody, in order to implement either federal or state mandates and goals (such as fishable and swimmable for regional waters).

15. The receiving waters for the permitted discharge covered by this permit is Los Angeles Inner Harbor. The beneficial uses listed in the Basin Plan for Los Angeles Inner Harbor are:
 - Existing uses: industrial service supply, navigation, non-contact recreation, commercial and sport fishing, marine habitat, preservation of rare and endangered species.
 - Potential uses: water contact recreation, shellfish harvesting.
16. The State Water Resources Control Board (State Board) adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.
17. On May 18, 2000, the U.S. Environmental Protection Agency (USEPA) promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR 131.38]. In the CTR, USEPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. The CTR also provides a schedule of compliance not to exceed five years from the date of permit issuance for a point source discharge if the Discharger demonstrates that it is infeasible to promptly comply with the CTR criteria.
18. Under 40 CFR 122.44(d), Water Quality Standards and State Requirements, "Limitations must control all pollutants or pollutant parameters (either conventional, non-conventional, or toxic pollutants), which the Director [permitting authority] determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." Where numeric effluent limitations for a pollutant or pollutant parameter have not been established in the applicable state water quality control plan, 40 CFR section 122.44(d)(1)(vi) specifies that WQBELs may be set based on USEPA criteria, and may be supplemented where necessary by other relevant information to attain and maintain narrative water quality criteria, and to fully protect designated beneficial uses.
19. Effluent limitation guidelines requiring the application of best practicable control technology currently available (BPT), best conventional pollutant control technology (BCT), and best available technology economically achievable (BAT), were promulgated by the USEPA for some pollutants in this discharge. Effluent limitations for pollutants not subject to the USEPA effluent limitation guidelines are based on one of the following: best professional judgment (BPJ) of BPT, BCT or BAT; current plant performance; or WQBELs. The WQBELs are based on the Basin Plan, other State plans and policies, or USEPA water quality criteria which are taken from the CTR. These requirements, as they are met, will protect and maintain existing beneficial uses of the receiving water. The attached fact sheet for this Order includes specific bases for the effluent limitations.
20. State and Federal antibacksliding and antidegradation policies require Regional Board actions to protect the water quality of a water body and to ensure that the waterbody will

not be further degraded. The antibacksliding provisions are specified in section 402(o) and 303(d)(4) of the Clean Water Act (CWA) and in Title 40, Code of Federal Regulations (40 CFR), section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.

21. Effluent limitations are established in accordance with sections 301, 304, 306, and 307 of the CWA, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of Los Angeles Inner Harbor.

Watershed Management Approach and Total Maximum Daily Loads (TMDLs)

22. The Regional Board has implemented the Watershed Management Approach to address water quality issues in the region. Watershed management may include diverse issues as defined by stakeholders to identify comprehensive solutions to protect, maintain, enhance, and restore water quality and beneficial uses. To achieve this goal, the Watershed Management Approach integrates the Regional Board's many diverse programs, particularly Total Maximum Daily Loads (TMDLs), to better assess cumulative impacts of pollutants from all point and non-point sources. A TMDL is a tool for implementing water quality standards and is based on the relationship between pollution sources and in-stream water quality conditions. The TMDL establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby provides the basis to establish water quality-based controls. These controls should provide the pollution reduction necessary for a waterbody to meet water quality standards. This process facilitates the development of watershed-specific solutions that balance the environmental and economic impacts within the watershed. The TMDLs will establish waste load allocation (WLAs) and load allocations (LAs) for point and non-point sources, and will result in achieving water quality standards for the waterbody.
23. The Los Angeles/Long Beach Harbors are located in the southern portion of the Los Angeles Basin in the greater San Pedro Bay. These harbors receive discharges from highly industrialized areas. The 2002 State Board's California 303(d) List classifies the Los Angeles Inner Harbor and several water bodies within the Harbor as impaired. These water bodies include: Consolidated Slip, Southwest Slip, a portion of Main Channel, Fish Harbor, Cabrillo Pier, and breakwater. The pollutants of concern, detected in the water column, in the sediment, and in the fish tissue, include: cadmium, copper, lead, mercury, nickel, chromium, zinc, DDT, PAHs, sediment toxicity, benthic community effects, chlordane, PCBs, and toxaphene.

Data Availability and Reasonable Potential Monitoring

24. 40 CFR 122.44(d)(1)(ii) requires that each toxic pollutant be analyzed with respect to its reasonable potential when determining whether a discharge (1) causes; (2) has the reasonable potential to cause; or (3) contributes to the exceedance of a receiving water quality objective. This is done by performing a reasonable potential analysis (RPA) for each pollutant. In performing the RPA, the permitting authority uses procedures that account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, and the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity). Because of effluent variability,

there is always some degree of uncertainty in determining an effluent's impact on the receiving water. The USEPA's *Technical Support Document for Water Quality-Based Toxics Control (TSD) of 1991* (USEPA/505/2-90-001), addresses this issue by suggesting the use of a statistical approach. Sufficient effluent data are needed to perform the RPA.

25. There are insufficient monitoring data available to perform RPA on the priority pollutants. The TSD requires the dischargers to submit sufficient data to conduct the determination of priority pollutants requiring WQBELs and to calculate the effluent limitations. In accordance with section 13267 of the California Water Code, the Regional Board, in a letter dated July 27, 2001, required the Discharger to conduct an interim monitoring program of the effluent and the receiving water for three years. The data collected (at least seven quarters) shall be submitted every quarter to the Regional Board. The data shall be used to determine the reasonable potential of a priority pollutant and to calculate the effluent limitation, if required. To date, the Discharger has submitted to the Regional Board three data points for the priority pollutants collected during the period from November 2001 through December of 2002. Thus, the reissued permit includes monitoring requirements to obtain the necessary data for reasonable potential analysis for priority pollutants.
26. In accordance with the TSD, the Discharger is required to submit data sufficient for: (1) determining if WQBELs for priority pollutants are required, and (2) to calculate effluent limitations, if required. Therefore, the proposed permit requires the Discharger to conduct effluent monitoring for all CTR priority pollutants annually over the life of the permit. Monitoring requirements regarding sample type and frequency are prescribed in the associated Monitoring and Reporting Program.
27. This permit will be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the RPA.
28. The existing permit contains acute toxicity limitations and monitoring requirements. This Order will require Ultramar to continue to monitor the discharge for acute toxicity and contains a requirement for accelerated monitoring during the first six months of the permit term to determine compliance with effluent limitations.

CEQA and Notifications

29. The Regional Board has notified the Discharger and interested agencies and persons of its intent to issue waste discharge requirements for this discharge, and has provided them with an opportunity to submit their written views and recommendations.
30. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.
31. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Clean Water Act or amendments thereto, and shall take effect at the end of ten days from the date of its adoption provided the Regional Administrator, USEPA, has no objections.

32. Pursuant to California Water Code section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, Office of Chief Counsel, ATTN: Elizabeth Miller Jennings, Senior Staff Counsel, 1001 I Street, 22nd Floor, Sacramento, California, 95814, within 30 days of adoption of this Order.
33. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) in accordance with the California Water Code, section 13389.

IT IS HEREBY ORDERED that Ultramar, Incorporated, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted there under, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted there under, shall comply with the following:

I. DISCHARGE REQUIREMENTS

A. Discharge Prohibitions

1. Wastes discharged shall be limited to storm water runoff from the tank farm area, and fire protection system test waters as proposed. The discharge of wastes from accidental spills or other sources is prohibited.
2. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to a storm drain system, Los Angeles Inner Harbor, or waters of the State, are prohibited.

B. Effluent Limitations

The discharge of an effluent in excess of the following limitations is prohibited:

1. A pH value less than 6.5 or greater than 8.5.
2. Temperature:
 - a. A temperature greater than 85 °F; and
 - b. The maximum temperature of the discharge shall not exceed the natural receiving water temperature by more than 20 °F.
3. Toxicity limitations:
 - a. Acute Toxicity Limitation and Requirements
 - i. The acute toxicity of the effluent shall be such that (i) the average survival in the undiluted effluent for any three (3) consecutive 96-hour

static or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70% survival.

aa. If the acute toxicity of the effluent exceeds the effluent limitations in Section I.B.3.a.i, the Discharger shall immediately implement accelerated acute toxicity testing according to Monitoring and Reporting Program 6155, Item IV.C.1. If the results of two of the six accelerated tests exceed the effluent limitations, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan, described below.

ii. Preparation of an Initial Investigation TRE Workplan

The Discharger shall submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) workplan (1-2 pages) to the Executive Officer of the Regional Board for approval within 90 days of the effective date of this permit. If the Regional Board Executive Officer does not disapprove the workplan within 60 days, the workplan shall become effective. The Discharger shall use EPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

aa. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;

ab. A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility; and,

ac. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor) (See MRP Section IV.D.1. for guidance manuals.)

iii. If, after the initial 6-month testing period, the Discharger has met compliance with acute toxicity limitations and has resumed annual toxicity testing, and then subsequently either of the above requirements [Section I.B.3.a.i] is not met, the Discharger shall conduct six additional tests over a six-week period. The Discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the completion of the test, and the additional tests shall begin within 3 business days of the receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the Discharger may resume regular testing. However if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The

TIE shall include all reasonable steps to identify the source(s) of toxicity. Once the source(s) of toxicity is identified, the Discharger shall take all reasonable steps to reduce the toxicity to meet the objective.

- iv. If the initial test and any of the additional six acute toxicity bioassay tests result in less than 70% survival, including the initial test, the Discharger shall immediately begin a TIE.
- v. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program No. 6155.

4. Final Effluent Limitations:

- a. In addition to the Requirements I.B.1 through I.B.3, the discharge of storm water and fire protection test water from Discharge Serial No. 001 (Latitude 33°46'10", Longitude 118°15'48") containing constituents in excess of the following limits is prohibited:

Constituents	Units	Discharge Limitations ^{1/}	
		Monthly Average	Daily Maximum
Total suspended solids	mg/L	50	75
Turbidity	NTU	50	75
Settleable solids	ml/L	0.1	0.3
BOD ₅ 20°C	mg/L	20	30
Oil and Grease	mg/L	10	15
Sulfides	mg/L	---	1.0
Phenols	mg/L	---	1.0

^{1/} The monthly average concentration shall be the arithmetic average of all the values of daily concentrations calculated using the results of analyses of all samples collected during the month. If only one sample is taken in that month, compliance shall be based on this sample result.

The mass emission (in lb/day) for the discharge shall be calculated and reported using the limitation concentration and the actual flow rate measured at the time of discharge, using the formula:

$$m = 8.34 C_i Q$$

where: m = mass discharge for a pollutant, lb/day
C_i = limitation concentration for a pollutant, mg/L
Q = actual discharge flow rate, mgd

C. Receiving Water Limitations

1. The discharge shall not cause the following conditions to exist in the receiving waters:
 - a. Floating, suspended or deposited macroscopic particulate matter or foam;
 - b. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - c. Visible, floating, suspended or deposited oil or other products of petroleum origin;
 - d. Bottom deposits or aquatic growths; or,
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge shall not cause nuisance, or adversely effect beneficial uses of the receiving water.
3. No discharge shall cause a surface water temperature rise greater than 5°F above the natural temperature of the receiving waters at any time or place.
4. The discharge shall not cause the following limitations to be exceeded in the receiving waters at any place within the waterbody of the receiving waters:
 - a. The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units;
 - b. Dissolved oxygen shall not be less than 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation;
 - c. Dissolved sulfide shall not be greater than 0.1 mg/L;
 - d. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Board or State Board. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Regional Board will revise or modify this Order in accordance with such standards.

5. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Board or State Board. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Regional Board will revise or modify this Order in accordance with such standards.
6. The discharge shall not cause the following to be present in receiving waters:
 - a. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses;
 - b. Chemical substances in amounts that adversely affect any designated beneficial use;
 - c. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water;
 - d. Suspended or settleable materials in concentrations that cause nuisance or adversely affect beneficial uses;
 - e. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses;
 - f. Substances that result in increases of BOD₅20⁰C that adversely affect beneficial uses;
7. The discharge shall not alter the color, create a visual contrast with the natural appearance, nor cause aesthetically undesirable discoloration of the receiving waters.
8. The discharge shall not degrade surface water communities and population including vertebrate, invertebrate, and plant species.
9. The discharge shall not damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload their design capacity.
10. The discharge shall not cause problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.

II. REQUIREMENTS

- A. The Discharger shall submit within 180 days of the effective date of this Order, a pollution prevention document that will include:
1. An updated Storm Water Pollution Prevention Plan (SWPPP) that describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State. The SWPPP shall be developed in accordance with the requirements in Attachment M.
 2. Best Management Practices Plan (BMPP) that entails site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the State. The BMPP shall be consistent with the general guidance contained in the EPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004). In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material discharge to surface waters.
 3. An updated Spill Contingency Plan that shall be site-specific and shall cover all areas of the facility. The Contingency Plan shall be reviewed at the same time as the SWPPP and BMPP.

The plans shall cover all areas of the facility and shall include an updated drainage map for the facility. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge points; describe the activities in each area and the potential for contamination of storm water runoff and the discharge of hazardous waste/material; and address the feasibility of containment and/or treatment of the storm water. The plans shall be reviewed annually and at the same time. Updated information shall be submitted within 30 days of revision.

- B. The Discharger shall implement or require the implementation of the most effective combination of BMPs for storm water pollution control. When implemented, BMPs are intended to result in the reduction of pollutants in storm water to the maximum extent practicable.
- C. Oil or oily materials, chemicals, refuse, or other materials that may cause pollution in storm water and/or urban runoff shall not be stored or deposited in areas where they may be picked up by rainfall/urban runoff and discharged to surface waters. Any spill of such materials shall be contained, removed, and cleaned immediately.
- D. Pursuant to the requirements of 40 CFR 122.42(a), the Discharger must notify the Board as soon as it knows, or has reason to believe (1) that it has begun or expected to begin, to use or manufacture a toxic pollutant not reported in the permit application, or (2) a discharge of toxic pollutant not limited by this Order has

occurred, or will occur, in concentrations that exceed the specified limits in 40 CFR 122.42(a).

- E. The Discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this Order.
- F. The Discharger shall comply with the waste load allocations that will be developed from the TMDL process for the 303(d)-listed pollutants.
- G. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States, is prohibited unless specifically authorized elsewhere in this permit or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.
- H. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream which ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.
- I. The Discharger shall notify the Executive Officer in writing no later than six months prior to the planned discharge of any chemical, other than chlorine or other product previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:
 - a. Name and general composition of the chemical,
 - b. Frequency of use,
 - c. Quantities to be used,
 - c. Proposed discharge concentrations, and
 - d. USEPA registration number, if applicable.

No discharge of such chemical shall be made prior to the Executive Officer's approval.

- J. The Regional Board and USEPA shall be notified immediately, by telephone, of the presence of adverse conditions in the receiving waters or on beaches and shores as a result of wastes discharged; written confirmation shall follow as soon as possible but not later than five working days after occurrence.

III. PROVISIONS

- A. This Order includes the attached *Standard Provisions and General Monitoring and Reporting Requirements* (Standard Provisions, Attachment N). If there is any conflict between provisions stated herein and the attached Standard Provisions, those provisions stated herein shall prevail.
- B. This Order includes the attached Monitoring and Reporting Program No. 6155. If there is any conflict between provisions stated in the Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the former shall

prevail.

- C. The Discharger shall comply with the requirements of SWPPP updates associated with industrial activity (State Board Order No. 97-03-DWQ adopted on April 17, 1997) and SWPPP updates and monitoring and reporting requirements of State Board general permit for discharges of storm water and Construction Activity (State Board Order No. 99-08-DWQ adopted on August 19, 1999). This Order R4-2003-0150 shall take precedence where conflicts or differences arise between it and the aforementioned Orders.
- D. This Order includes the relevant requirements contained in the attached *Storm Water Pollution Prevention Plan Requirements (Attachment M)*.
- E. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62, 122.63, 122.64, 125.62 and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this Order; endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly-obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- F. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Board to local agencies.
- G. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
- H. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, and 423 of the Federal Clean Water Act and amendments thereto.
- I. Compliance Determination
 - 1. Compliance with single constituent effluent limitation – If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement II.C. of M&RP No. CI-6155), then the Discharger is out of compliance.
 - 2. Compliance with monthly average limitations - In determining compliance with monthly average limitations, the following provisions shall apply to all constituents:

- a. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the monthly average limit for that constituent, the Discharger has demonstrated compliance with the monthly average limit for that month.
- b. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the monthly average limit for any constituent, the Discharger shall collect four additional samples at approximately equal intervals during the month. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement II.C. of M&RP No. CI-6155), the numerical average of the analytical results of these five samples will be used for compliance determination.

When one or more sample results are reported as “Not-Detected (ND)” or “Detected, but Not Quantified (DNQ)” (see Reporting Requirement II.C. of M&RP No. CI-6155), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

- c. In the event of noncompliance with a monthly average effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the monthly average effluent limitation has been demonstrated.
 - d. If only one sample was obtained for the month or more than a monthly period and the result exceed the monthly average, then the Discharger is in violation of the monthly average limit.
3. Compliance with effluent limitations expressed as a sum of several constituents – If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.
 4. Compliance with effluent limitations expressed as a median – in determining compliance with a median limitation, the analytical results in a set of data will be arranged in Order of magnitude (either increasing or decreasing Order); and
 - a. If the number of measurements (n) is odd, then the median will be calculated as $X_{(n+1)/2}$, or
 - b. If the number of measurements (n) is even, then the median will be

calculated as $= [X_{n/2} + X_{(n/2)+1}]$, i.e. the midpoint between the $n/2$ and $n/2+1$ data points.

- J. In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for "Not Detected" (ND) and the estimated concentration for "Detected, but Not Quantified" (DNQ) for the calculation of the monthly average concentration. To be consistent with section III.1.3., if all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant concentrations should be considered as zero for the calculation of the monthly average concentration.

IV. REOPENERS

- A. This Order may be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the RPA.
- B. This Order may be reopened and modified, to incorporate in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach.
- C. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include new MLs.
- D. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective or the adoption of a TMDL for Los Angeles Inner Harbor.
- E. This Order may be reopened upon submission by the Discharger of adequate information, as determined by the Regional Board, to provide for dilution credits or a mixing zone, as may be appropriate.
- G. This Order may be reopened and modified to revise the toxicity language once that language becomes standardized.
- H. This Order may also be reopened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order and permit, and endangerment to human health or the environment resulting from the permitted activity.

V. EXPIRATION DATE

This Order expires on November 10, 2008.

The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for

issuance of new waste discharge requirements.

VI. RESCISSION

Order No. 97-003, adopted by this Regional Board January 27, 1997, is hereby rescinded except for enforcement purposes.

I, Dennis Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on December 4, 2003.

Dennis A. Dickerson
Executive Officer

STATE OF CALIFORNIA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 W. 4th Street, Suite 200, Los Angeles

FACT SHEET
WASTE DISCHARGE REQUIREMENTS
for
ULTRAMAR, INCORPORATED
MARINE TANK FARM

NPDES Permit No.: CA0057037
Public Notice No.: 03-069

FACILITY ADDRESS

Ultramar, Inc.
Marine Tank Farm
130 West A Street
Wilmington, CA 90744

FACILITY MAILING ADDRESS

Ultramar, Inc.
Marine Tank Farm
P.O. Box 93102
Long Beach, CA 90809
Contact: Ms. Shirin Mandagari
Telephone: (310) 518-4000

I. Public Participation

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the above-referenced facility. As an initial step in the WDR process, the Regional Board staff has developed tentative WDRs. The Regional Board encourages public participation in the WDR adoption process.

A. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to:

Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

To be fully responded to by staff and considered by the Regional Board, written comments should be received at the Regional Board offices by 5:00 p.m. on November 10, 2003.

B. Public Hearing

The Regional Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: December 4, 2003
Time: 9:00 a.m.
Location: The City of Simi Valley Council Chambers,
2929 Tapo Canyon Road, Simi Valley, California.

Interested persons are invited to attend. At the public hearing, the Regional Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is www.swrcb.ca.gov/rqcb4 where you can access the current agenda for changes in dates and locations.

C. Waste Discharge Requirements Appeals

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Board's action to the following address:

State Water Resources Control Board, Office of Chief Counsel
ATTN: Elizabeth Jennings, Senior Staff Counsel
1001 I Street, 22nd Floor
Sacramento, CA 95814

D. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Board, reference this facility, and provide a name, address, and phone number.

II. Introduction

Ultramar, Incorporated (hereinafter Ultramar or Discharger) discharges wastewater from the Los Angeles Department of Water and Power's (LADWP or Owner) Marine Tank Farm (MTF or Facility) Facility to the Los Angeles Inner Harbor, a water of the United States. Wastes discharged from the Facility are regulated by WDRs and NPDES permit contained

in Board Order No. 97-003 (NPDES Permit No. CA0057037). Order No. 97-003 expired on December 10, 2001.

Formerly, the LADWP owned and operated the Facility. In a letter dated February 21, 2001, LADWP notified the Regional Board of a change in operator because Ultramar assumed the operations of the Facility; LADWP still owns the facility. Ultramar has filed a report of waste discharge (ROWD) and has applied for renewal of its WDRs and NPDES permit on June 1, 2001.

The renewal application package stated plans to demolish an existing 100,000-barrel fuel oil tank and its containment area. In addition, the existing skim pond that serves the permitted area was to be relocated. No exact location for this relocation was given in the renewal application, but the new pond was to continue to treat the entire containment area for the remaining tanks. During an NPDES permit compliance evaluation inspection conducted on August 25, 2003 it was noted that the skim pond has been replaced with an in-ground oil/water separator located at the northwest corner of the containment dike for the 30,000-barrel storage tank (199-TK-301).

The February 21, 2001 letter from LADWP to the Regional Board states the area where the skim pond was located was to be redeveloped to accommodate the installation of gas combustion turbines. The letter also states that the skim pond was going to be relocated. However, the letter also states that discharges of storm water associated with the redevelopment and future operation of the power plant will be addressed under separate permitting activities, and that the northwest area of the MTF will no longer be included under the individual NPDES permit. The remaining area, referred to as the MTF, covered under this individual permit, will consist of two 405,000-barrel tanks and one 30,000-barrel cutter stock tank.

This tentative Order is the reissuance of the WDRs and NPDES permit for discharges from the MTF. Observations made and data collected during the NPDES permit compliance evaluation inspection were used to develop permit limits and requirements.

III. Description of Facility

Ultramar, a Valero Energy Corporation Company located in Wilmington, California, operates the Marine Tank Farm facility at LADWP's Harbor Generating Station located at 130 West "A" Street, Wilmington, California. The Facility is a petroleum refining and fuel storage facility.

The MTF currently stores residual fuel oil in three storage tanks (two 405,000-barrel tanks and one 30,000-barrel cutter stock tank) in a tank farm area surrounded by a 15-foot earthen dike. Intermediate oil products are received by pipeline and are pumped as needed to the Wilmington Refinery. The site is manned or monitored 24 hours per day by operators that serve the MTF and two other nearby tank farms. The facility was modified

during early 2000. A 100,000-barrel and two 80,000-barrel storage tanks were demolished and a portion of the site was sold for installation of a gas turbine not operated by Ultramar (it is owned and operated by LADWP).

IV. Waste Discharge

A. Stormwater and Fire Test water

The Stormwater Collection, Treatment and Discharge System (the "Stormwater System") collects stormwater falling in all areas of the Marine Tank Farm, and is designed and operated to control hydrocarbons which might occur in stormwater falling on the facility.

The Stormwater System consolidates stormwater falling on the facility. All stormwater discharges from the Marine Tank Farm occur from a single point after the oil-water separator to a city storm sewer as described later. Other than stormwater, the authorized non-stormwater discharge is potable water from fire system testing.

Ultramar intermittently discharges up to 600,000 gallons per day (gpd) of storm water runoff from the tank farm area. In addition, Ultramar maintains a fire prevention system for the storage tank farm area. The site fire protection system is tested weekly by spraying fire protection water into the containment dikes. Up to 4,000 gallons per day of fire prevention system test water is also directed to the oil-water separator before discharge to the storm drain along Fries Avenue through Discharge Serial No. 001 (Latitude 33°46'10", Longitude 118°15'48") to Los Angeles Inner Harbor, a water of the United States. The discharge to Los Angeles Inner Harbor occurs at Berth 182, within the estuary.

B. Drainage Control

Stormwater falling within the tank areas is fully contained on site using percolation and evaporation as the primary controls. Each of the two tank areas has an earthen dike approximately 10 feet in height. The tank areas are unpaved, and have the capability to retain, percolate and evaporate stormwater. Water accumulated within the containment dikes is not usually discharged immediately, but is held for maximum evaporation and absorption.

When discharge of stormwater from the diked areas is necessary, discharge control is managed by use of manually operated control valves in each area and a lift pump in Area B. Each of the 3 main stormwater connecting lines in Area B and the stormwater line leaving Area C has a control valve. The lift pump in Area B consists of a sump and a single, manually operated pump. A single line drains Area A and also has a manual control valve. Manual control of the individual valves and lift pump allows the operator to assure that excessive amounts of water are not accumulated in any area and at the same time that the capacity of the system is not exceeded.

The main drain lines flow to a lift station adjacent to the underground gravity oil water separator in Area A. This lift station has a sump containing two pumps with a float activated switch to effect discharge from the lift station to the separator. Only one pump is required for discharge at any one time, with a second on standby to assure that at least one pump will always be available. The pumps are started manually by the operator once the float determines that storm water in the sump has reached a base level allowing activation of the system. Once the water has returned to the base level, the pump shuts down automatically.

C. Oil/Water Separation and Discharge

Stormwater flows directly from the lift station to an underground oil-water separator. The oil water separator is a 4,000 gallon, double walled, stationary steel treatment vessel with a polyurethane coating and cathodic protection. It is capable of handling 400 gallons per minute of stormwater flow. Waste accumulates within the vessel and effluent water is discharged by gravity. The separator has three treatment chambers.

Stormwater enters the tank through a baffle which diffuses the velocity of the flow and turbulence and directs the flow outward to maximize use of the separator's capacity. The water first enters a sediment chamber where heavy solids settle out and concentrated oil rises to the surface. The oily water then flows through a parallel corrugated plate coalescer in which the oil rises and coalesces into sheets on the underside of each inclined plate. The oil works its way up the plate surface and breaks loose in the form of large globules which rise rapidly to the surface of the third or separation chamber, where the separated oil accumulates. Prior to discharge, the water flows through a polypropylene fiber coalescer which intercepts droplets of oil too small to be removed by the parallel plate coalescer.

The oil/water separator has a hydrocarbon high level detector which provides an audible and visible alarm when the oil level in the separation chamber is at a level requiring clean out. In this event, the operator immediately stops flow to the separator by shutting down the pumps in the lift stations and closing pipeline valves as needed. A vacuum truck is used to remove the oil by attaching to an oil pump out pipe located in the separator chamber. Oil removed by the vacuum truck is sent offsite to a licensed hazardous waste treatment or disposal facility or returned to the Wilmington Refinery for oil recovery in the Refinery oily water system. The separator also has two man-way access ports for sediment removal, inspection and maintenance.

The stormwater system controls storm drainage from all areas of the Marine Tank farm, so the only point where there is off site drainage is from the oil water separator. The separator discharges to a city storm sewer system drain on A Street. The city storm sewer flows to Los Angeles Harbor. A stormwater sampling port allows

removal of stormwater samples after the oil-water separator and prior to the discharge point. Discharges from the separator are sampled under the requirements of the NPDES permit. This port also allows samples to be taken for visual observation.

The lift system and oil-water separator also serve to control sedimentary materials which may be in the stormwater. Heavier sediments will settle to the bottom of the lift station sumps and the separator and accumulate. At regular intervals as needed during the storm season, and at the end of the storm season and prior to the next season, the sumps and the oil-water separator are inspected and cleaned as needed. All residual materials, including accumulated bottom sediments are removed and sent offsite to a licensed hazardous waste treatment or disposal facility .

The Regional Board and the United States Environmental Protection Agency (USEPA) have classified the Ultramar Marine Tank Farm facility as a minor discharge.

Effluent data reported on the facility's effluent monitoring reports are summarized in the following table:

Pollutant (units)	Range of Reported Values	Long Term Average ¹
Flow (gallons per day) (min./max.)	1,474 / 1,391,550	253,173
Temperature (Range) (deg. F)	57 – 69	63 ²
pH (standard units)	6.4 – 8.9	--
Oil and Grease (mg/l)	<1 – 11.9	3.3
Phenols (mg/l)	<0.03 – <0.5	ND
Suspended Solids (mg/l)	31 – 400	167 ³

¹ Average values calculated for detected values only.

² Taken from Annual Reports

³ Taken from nine data points from 2000 – 2002

The available effluent monitoring data show that the Discharger has been in compliance with all existing effluent limitations, except total suspended solids (TSS) and acute toxicity. Of the nine TSS samples taken during the permit term, three exceeded the 150 mg/l effluent limitation (dates: 10/00, 2/01 and 3/01). The two samples taken since 3/01 are within permit limits (31 mg/l and 67 mg/l).

One of the annual required acute toxicity tests failed to meet the required single test 70 % survival rate (65%) and MTF failed to meet the average survival of 90 % in three consecutive tests three times during the permit term.

A site inspection report dated October 10, 1999 indicates the facility was in compliance with existing permit limitations and requirements at that time. The August 25, 2003 inspection report noted few minor negative findings related to pH testing procedures, reporting of mass effluent values, and calibration of the effluent flow monitoring system.

V. Applicable Plans, Policies, and Regulations

The requirements contained in the proposed Order are based on the requirements and authorities contained in the following:

- A. The federal Clean Water Act (CWA). The federal Clean Water Act requires that any point source discharges of pollutants to a water of the United States must be done in conformance with an NPDES permit. NPDES permits establish effluent limitations that incorporate various requirements of the CWA designed to protect water quality.
- B. Code of Regulations, Title 40 (40 CFR) – Protection of Environment, Chapter I, Environmental Protection Agency, Subchapter D, Water Programs, Parts 122-125 and Subchapter N, Effluent Guidelines. These CWA regulations provide effluent limits for certain dischargers and establish procedures for NPDES permitting, including how to establish effluent limits for certain pollutants discharged by MTF.
- C. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains water quality objectives and beneficial uses for inland surface waters and for the Pacific Ocean. The Basin Plan contains beneficial uses and water quality objectives for Los Angeles Inner Harbor. Existing and potential beneficial uses are as follows:

Existing uses: industrial service supply, navigation, non-contact recreation, commercial and sport fishing, marine habitat, preservation of rare and endangered species.

Potential uses: water contact recreation, shellfish harvesting.
- D. The State Water Resources Control Board (State Board) adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.
- E. On May 18, 2000, the U.S. Environmental Protection Agency (USEPA) promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR § 131.38]. In the CTR, USEPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. The CTR also allows for a schedule of compliance not to exceed 5 years from the date of permit renewal for an existing discharger if the Discharger demonstrates that it is infeasible to promptly comply with the CTR criteria.

- F. 40 CFR section 122.44(d)(vi)(A) requires the establishment of numeric effluent limitations to attain and maintain applicable narrative water quality criteria to protect the designated beneficial uses. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that water quality-based effluent limits (WQBELs) may be set based on USEPA criteria and supplemented, where necessary, by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.
- G. State and Federal antibacksliding and antidegradation policies require that Regional Board actions to protect the water quality of a water body and to ensure that the waterbody will not be further degraded. The antibacksliding provisions are specified in section 402(o) and 303(d)(4) of the CWA and in the Title 40 of the Code of Federal Regulations (40 CFR), section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.
- H. Effluent limitations are established in accordance with sections 301, 304, 306, and 307 of the federal CWA, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of the Los Angeles Inner Harbor.
- I. Existing waste discharge requirements contained in Board Order No. 97-003, adopted by the Regional Board on January 27, 1997. In some cases, permit conditions (effluent limits and other special conditions) established in the existing waste discharge requirements have been carried over to this permit.

VI. Regulatory Basis for Effluent Limitations

The CWA requires point source discharges to control the amount of conventional, nonconventional, and toxic pollutants that are discharged into the waters of the United States. The control of the discharge of pollutants is established through NPDES permits that contain effluent limitations and standards. The CWA establishes two principal bases for effluent limitations. First, dischargers are required to meet technology-based effluent limitations that reflect the best controls available considering costs and economic impact. Second, they are required to meet WQBELs that are developed to protect applicable designated uses of the receiving water.

The CWA requires that technology-based effluent limitations be established based on several levels of control:

- Best practicable treatment control technology (BPT) is based on the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.

- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and nonconventional pollutants.
- Best conventional pollutant control technology (BCT) is a standard for the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the “cost reasonableness” of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.
- New source performance standards (NSPS) that represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BCT, BAT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR 125.3 of the NPDES regulations authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern or were not considered in development of the applicable ELGs.

If a reasonable potential exists for pollutants in a discharge to exceed water quality standards, WQBELs are also required under 40 CFR 122.44(d)(1)(i). WQBELs are established after determining that technology-based limitations are not stringent enough to ensure that state water quality standards are met for the receiving water. WQBELs are based on the designated use of the receiving water, water quality criteria necessary to support the designated uses, and the state's antidegradation policy. For discharges composed entirely of storm water, such as the potential discharges to inland surface waters, enclosed bays, and estuaries, the USEPA's *Technical Support Document for Water Quality-Based Toxics Control (TSD) of 1991* (USEPA/505/2-90-001) establishes procedures for determining reasonable potential and establishing WQBELs for priority pollutant criteria promulgated by USEPA through the CTR and NTR, as well as the Basin Plan. With respect to a reasonable potential analysis, the TSD identifies an appropriate step-wise approach that can be used to determine whether a discharge has a reasonable potential. The approach used in the TSD is equally valid for determining the reasonable potential for discharges not comprised entirely of storm water discharges.

There are several other specific factors affecting the development of limitations and requirements in the proposed Order. These are discussed as follows:

A. Pollutants of Concern

The CWA requires that any pollutant that may be discharged by a point source in quantities of concern must be regulated through an NPDES permit. Further, the NPDES regulations require regulation of any pollutant that (1) causes; (2) has the reasonable potential to cause; or (3) contributes to the exceedance of a receiving water quality criteria or objective.

Effluent limitations for Discharge Serial No. 001 in the current permit were established for oil and grease and phenols because they may be present in materials stored on-site and have the potential to be present in storm water runoff from a petroleum tank farm. There are water quality objectives in the Basin Plan for pH and temperature and storm water runoff may affect the pH and temperature of the discharge; therefore, effluent limitations for pH and temperature are established in this permit. Storm water runoff may also pick up solids from the diked areas surrounding the storage tanks and solids may be present in the discharge. In addition, there were multiple exceedances of the existing TSS limit during the previous permit term, therefore, TSS is also considered a pollutant of concern and is limited in this permit. Benzene, ethylbenzene, toluene, and xylene are components of fuel oil and may be present in the discharge of storm water, and there is the potential for these constituents to be present in the discharge. Due to the nature of the discharge, benzene, ethylbenzene, toluene, and xylene are considered pollutants of concern and monitoring requirements have been established in this Order. Monitoring data will be evaluated to determine the need for effluent limitations.

B. Technology-Based Effluent Limits

The previous permit required the Discharger to develop and implement a *Storm Water Pollution Prevention Plan* (SWPPP). A SWPPP outlines site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into surface waters. The SWPPP should address potential sources of materials containing solids and include practices that will minimize solids from entering the discharge. The SWPPP should also address the infiltration areas within the containment dikes, including maintenance and inspection procedures, and the SWPPP should address proper operation and maintenance of the oil and water separator. Due to the fact that storm water discharges do occur at the facility, this permit will continue to require that Ultramar update and implement a SWPPP.

Due to the lack of national ELGs for tank farm facilities and the absence of data

available to apply BPJ for most pollutants, and pursuant to 40 CFR 122.44(k), the Regional Board will require the Discharger to develop and implement a *Best Management Practices Plan* (BMPP). The combination of the SWPPP and BMPP and existing permit limitations based on past performance and reflecting BPJ will serve as the equivalent of technology-based effluent limitations, in the absence of established ELGs, in order to carry out the purposes and intent of the CWA.

C. Water Quality-Based Effluent Limits

As specified in 40 CFR § 122.44(d)(1)(i), permits are required to include WQBELs for toxic pollutants (including toxicity) that are or may be discharged at levels which cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses for the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria (that are contained in other state plans and policies, or USEPA water quality criteria contained in the CTR and NTR). The procedures for determining reasonable potential, and if necessary for calculating WQBELs, are contained in the TSD for storm water discharges. Further, in the best professional judgment of the Regional Board staff, the TSD identifies an appropriate, rational step-wise approach that can be used to determine whether storm water discharges demonstrate reasonable potential.

The CTR contains both saltwater and freshwater criteria. According to 40 CFR § 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time; saltwater criteria apply at salinities of 10 ppt and above at locations where this occurs 95 percent or more of the time; and at salinities between 1 and 10 ppt the more stringent of the two apply. The CTR criteria for salt water, fresh water, or human health for consumption of organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of the Los Angeles Inner Harbor.

1. *Reasonable Potential Analysis (RPA)*

Sufficient effluent and ambient data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Board to conduct the RPA. Upon review of the data, and if the Regional Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

There are insufficient monitoring data available to perform RPA on the priority pollutants. The TSD requires the dischargers to submit sufficient data to conduct the determination of priority pollutants requiring WQBELs and to calculate the effluent limitations. In accordance with Section 13267 of the

California Water Code, the Regional Board, in a letter dated July 27, 2001, required the Discharger to conduct an interim monitoring program of the effluent and the receiving water for 3 years. The letter stated that the data collected (at least seven quarters) shall be submitted every quarter to the Regional Board. The data will be used to determine the reasonable potential of a priority pollutant and to calculate the effluent limitation, if required. To date, the Discharger has submitted to the Regional Board three data points for the priority pollutants collected during the period from November 2002 through December 2003. Thus, the reissued permit includes monitoring requirements to obtain the necessary data for reasonable potential analysis for priority pollutants.

2. *Calculating WQBELs*

If a reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one of three procedures contained in Section 5.4 of the TSD. These procedures include:

- a. If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).
- b. Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).
- c. Where sufficient effluent and receiving water data exist, use of a dynamic model which has been approved by the Regional Board.

3. *Impaired Water Bodies in 303 (d) List*

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Regional Board plans to develop and adopt TMDLs that will specify WLAs for point sources and load allocations (LAs) for non-point sources, as appropriate.

The USEPA approved the State's 2002 303(d) list of impaired water bodies on July 25, 2003. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2002 303(d) list and have been scheduled for TMDL development.

The Los Angeles/Long Beach Harbors are located in the southern portion of the Los Angeles Basin in the greater San Pedro Bay. These harbors receive

discharges from highly industrialized areas. The 2002 State Board's California 303(d) List classifies the Los Angeles Inner Harbor and several water bodies within the Harbor as impaired. These water bodies include: Consolidated Slip, Southwest Slip, a portion of Main Channel, Fish Harbor, Cabrillo Pier, and breakwater. The pollutants of concern, detected in the water column, in the sediment, and in the fish tissue, include: cadmium, copper, lead, mercury, nickel, chromium, zinc, DDT, PAHs, sediment toxicity, benthic community effects, chlordane, dieldrin, PCBs, and toxaphene.

4. *Whole Effluent Toxicity*

Whole Effluent Toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and measures mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental response on aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The existing permit contains acute toxicity limitations and monitoring requirements.

In accordance with the Basin Plan, acute toxicity limitations dictate that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. One of the facility's annual acute toxicity tests failed to meet the required single test 70 % survival rate (65% on February 15, 2000) and the two samples taken between 2/00 and 2/01 failed to meet the average survival of 90 % required in the current Board Order. As stated, the February 15, 2000 sample indicated 65% survival, and the February 2, 2001 sample indicated 80% survival. This Order requires the Discharger to increase acute toxicity testing for both storm water discharges and fire protection system test water to verify that there is no acute toxicity in the effluent. The Discharger is required to test monthly for acute toxicity for each waste stream (i.e., storm water and fire protection system test water) for the first 6 months following permit adoption. The results of these samples must then be compared to the acute toxicity limits. If non-compliance is observed, the Discharger must perform an approved toxicity

identification evaluation/toxicity reduction evaluation (TIE/TRE). If compliance is observed over the first 6 months following permit adoption, the Discharger may revert to annual toxicity testing beginning in the next permit year.

The discharges at the MTF occur only after a significant storm event or after a fire protection system test; they are not continuous. Therefore, the discharge is not expected to contribute to long-term toxic effects. Intermittent discharges are likely to have short-term toxic effects. Therefore, at this facility MTF will be required to continue to conduct acute toxicity testing in accordance with the proposed permit requirements and the Basin Plan.

D. Specific Rationale for Each Numerical Effluent Limitation

Section 402(o) of the Clean Water Act and 40 CFR 122.44(l) require that effluent limitations standards or conditions in reissued permits be at least as stringent as those in the existing permit. The Regional Board has determined that reasonable potential exists for certain pollutants that are regulated under the current permit; therefore, effluent limitations have been established for these pollutants. The requirements in the proposed Order for oil and grease and phenol (shown in the table below) are based on limits specified in Ultramar's existing permit. The effluent limitation for TSS has been revised to reflect updated TSS limitations contained in permits for similar discharges. The effluent limitations for pH and temperature are based on the Basin Plan.

Since there are insufficient monitoring data available to perform an RPA and calculate WQBELs for the priority pollutants, no effluent limitations are prescribed in this Order. Monitoring requirements for priority pollutants are established in this Order and the Order may be reopened to include WQBELs for priority pollutants if these data demonstrate that there is reasonable potential to exceed priority pollutant water quality criteria.

In compliance with 40 CFR §122.45(f), mass-based limitations have also been established in the proposed Order for conventional, non-conventional, and toxic pollutants where feasible. Generally, mass-based limits ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limits. When calculating the mass-based limitations for discharges, the appropriate flow, daily maximum limitations (for daily maximum mass calculations), and the monthly average limitations (for monthly average mass calculations) should be substituted in the following equation:

$$\text{Mass (lbs/day)} = \text{flow rate (MGD)} \times 8.34 \times \text{effluent limitation (mg/L)}$$

where:

- mass = mass limit for a pollutant in lbs/day
- effluent limitation = concentration limit for a pollutant, mg/L
- flow rate = discharge flow rate in MGD

The mass-based effluent limitations for storm water runoff and fire protection system test water contained in the existing Order are based on a maximum discharge flow rate of 600,000 gpd. The permit renewal application states the average discharge flow rate for storm water runoff is 600,000 gpd and for fire protection system test water is 4,000 gpd; the wastewater flow diagram does not specify if these flow rates are average or maximum values. In this Order, mass-based effluent limitations for storm water runoff are based on an average discharge flow rate of 600,000 gpd as stated in the application; and separate mass-based effluent limitations for fire protection system test water, an average flow rate of 4,000 gpd.

The following effluent limitations established in this Order are applicable to storm water discharges to the storm drain on Fries Avenue through Discharge Serial No. 001 (Latitude 33°46'10", Longitude 118°15'48"); then to the Los Angeles Inner Harbor:

Constituents	Units	Discharge Limitations		Rationale ¹
		Monthly Average	Daily Maximum	
Total suspended solids	mg/L	50	75	BPJ
Turbidity	NTU	50	75	BPJ
Settleable solids	ml/L	0.1	0.3	BPJ
BOD ₅ 20°C	mg/L	20	30	BPJ
Oil and Grease	mg/L	10	15	BPJ
Sulfides	mg/L	---	1.0	BPJ
Phenols	mg/L	---	1.0	E
Toxicity – Acute	% survival			E, BP

¹ BP = Basin Plan. BPJ = Best professional judgement is the method used by permit writers to develop technology-based NPDES permit conditions on a case-by-case basis using all reasonably available and relevant data. BPJ limits are established in cases where effluent limitation guidelines are not available for a particular pollutant of concern. Authorization for BPJ limits is found under section 401(a)(1) of the Clean Water Act and under 40 CFR 125.3. E = Existing permit limitation.

F. Monitoring Requirements

The previous Order required effluent monitoring to determine compliance with existing limitations and to characterize the effluent being discharged from the MTF. Monitoring requirements are discussed in greater detail in Section III of the Monitoring and Reporting Program No. 6155.

1. *Effluent Monitoring*

To assess the impact of the discharges to the beneficial uses of the receiving waters, the Discharger is required to monitor the conventional and priority pollutants. Monitoring of these pollutants will characterize the wastes discharged.

To demonstrate compliance with effluent limitations established in this Order, monitoring once per discharge event for conventional pollutants, once per month for VOCs and metals and annually for the rest of the priority pollutants is required.

This monitoring shall occur at Discharge Serial No. 001, which is to be established at the exit point of the oil-water separator and prior to entry into the private storm drain system. This monitoring is to be done for all discharges of storm water and fire protection test water.

The Discharger is required to test for acute toxicity semi-annually during the first two years. The results of these samples must then be compared to the acute toxicity limits. If non-compliance is observed, the Discharger must perform an approved toxicity identification evaluation/toxicity reduction evaluation (TIE/TRE). If compliance is observed, the Discharger may revert to annual toxicity testing following the initial four semi-annual sampling event.

2. *Receiving Water Monitoring Requirements*

To conduct RPA receiving water monitoring data is required. The receiving water monitoring of priority pollutants shall be conducted for the first two years on an annual basis. The two time annual monitoring of the receiving water shall be conducted at the same time as annual effluent monitoring of priority pollutants.

.Receiving monitoring station shall be within 50 feet upstream from or near the discharge point (of storm drain) into Receiving Water.

3. *Storm Water Monitoring*

The Discharger is required to measure and record the rainfall each day of the month. The Discharger is also required to conduct visual observations of all storm water discharges at all storm water discharge locations (i.e., outfall of oil-water separator) to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity and odor. Furthermore, the Discharger shall implement the Storm Water Pollution Prevention Plan Requirements (SWPPP) as is enumerated in Attachment M of the WDR Order No. R4-2003-XXXX.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 6155
for
ULTRAMAR, INC.
(MARINE TANK FARM)
(CA0057037)

I. Reporting Requirements

- A. Ultramar, Inc., (hereinafter Ultramar or Discharger) shall implement this monitoring program on the effective date of this Order. All monitoring reports shall be submitted quarterly and must be received by the Regional Board by the dates in the following schedule. All monitoring reports should be addressed to the Regional Board, Attention: Information Technology Unit. The first monitoring report under this Program is due by April 15, 2004.

Reporting Period	Report Due
January – March	April 15
April – June	July 15
July-September	October 15
October-December	January 15
Annual Summary Report	March 1

If there is no discharge during any reporting period, the report shall so state.

- B. The Discharger shall submit an annual summary report (for both dry and wet weather discharges), containing a discussion of the previous year's effluent and receiving water monitoring data, as well as graphical and tabular summaries of the data. The data shall be submitted to the Regional Board on hard copy and on a 3 ½ " computer diskette. Submitted data must be IBM compatible, preferably using EXCEL software. This annual report is to be received by the Regional Board by March 1 of each year following the calendar year of data collection.
- C. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

- D. The Discharger shall inform the Regional Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

II. Effluent Monitoring Requirements

- A. A sampling station shall be established for each point of discharge and shall be located where representative samples of that effluent can be obtained. This monitoring shall occur at Discharge Serial No. 001, which is to be established at the exit point of the oil-water separator and prior to entry into the private storm drain system.
- B. This Regional Board shall be notified in writing of any change in the sampling stations once established or in the methods for determining the quantities of pollutants in the individual waste streams.
- C. Pollutants shall be analyzed using the analytical methods described in 40 CFR sections 136.3, 136.4, and 136.5 (revised May 14, 1999); or, where no methods are specified for a given pollutant, by methods approved by this Regional Board or the State Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.

The monitoring reports shall specify the analytical method used, the Method Detection Limit (MDL), and the Minimum Level (ML) for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported by one of the following methods, as appropriate:

1. An actual numerical value for sample results greater than or equal to the ML; or,
2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML; or,
3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

Current MLs (Attachment A) are those published by the State Water Resources Control Board in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, March 2, 2000*.

- D. Where possible, the MLs employed for effluent analyses shall be lower than the permit limitations established for a given parameter. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

The Regional Board, in consultation with the State Board Quality Assurance Program, shall establish a ML that is not contained in Attachment A to be included in the Discharger's permit in any of the following situations:

1. When the pollutant under consideration is not included in Attachment A;
 2. When the Discharger and Regional Board agree to include in the permit a test method that is more sensitive than that specified in 40 CFR Part 136 (revised May 14, 1999);
 3. When the Discharger agrees to use an ML that is lower than that listed in Attachment A;
 4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment A, and proposes an appropriate ML for their matrix; or,
 5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Board, and the State Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.
- E. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR section 136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Regional Board format, when it becomes available, and submitted with the laboratory reports. Proper chain of custody procedures must be followed, and a copy of the chain of custody shall be submitted with the report.
- F. All analyses shall be accompanied by the chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a

perjury statement executed by the person responsible for the laboratory.

- G. Annual effluent analyses shall be performed during the first discharge event of the wet season (October 1 – May 31).
- H. For parameters that both monthly average and daily maximum limits are specified and the monitoring frequency is less than four times a month, the following shall apply. If an analytical result is greater than the monthly average limit, the sampling frequency shall be increased (within one week of receiving the test results) to a minimum of once weekly, if possible, at equal intervals, until at least four consecutive weekly samples have been obtained, and compliance with the monthly average limit has been demonstrated. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the monthly average limit.

III. Effluent Monitoring Program

- A. The effluent monitoring program for the discharge of storm water runoff and fire protection system test water is:

Constituent	Units	Type of Sample	Sampling Frequency
Flow	gal/day	----	once per discharge event ^{1/}
pH	pH units	grab	once per discharge event ^{1/}
Temperature	°F or °C	grab	once per discharge event ^{1/}
Oil and Grease	mg/L	grab	once per discharge event ^{1/}
BOD5 20°C	mg/L	grab	once per discharge event ^{1/}
Total suspended solids	mg/L	grab	once per discharge event ^{1/}
Settleable solids	mg/L	grab	once per discharge event ^{1/}
Turbidity	TU	grab	once per discharge event ^{1/}
Phenols ^{2/}	mg/L	grab	once per discharge event ^{1/}
Sulfides	mg/L	grab	once per month ^{2/}
Phenols	mg/L	grab	once per month ^{2/}
Detergents (MBAS)	mg/L	grab	once per month ^{2/}
Dissolved oxygen	mg/L	grab	once per month ^{2/}
Conductivity	µmho/cm	grab	once per month ^{2/}
Total organic carbon	mg/L	grab	once per month ^{2/}
Ammonia (as N)	mg/L	grab	once per month ^{2/}
Benzene	µg/L	grab	once per month ^{2/}
Toluene	µg/L	grab	once per month ^{2/}
Xylene	µg/L	grab	once per month ^{2/}
Ethylbenzene	µg/L	grab	once per month ^{2/}

Constituent	Units	Type of Sample	Sampling Frequency
Carbon tetrachloride	μg/L	grab	once per month ^{2/}
Tetrachloroethylene	μg/L	grab	once per month ^{2/}
Trichloroethylene	μg/L	grab	once per month ^{2/}
Vinyl chloride	μg/L	grab	once per month ^{2/}
1,4-Dichlorobenzene	μg/L	grab	once per month ^{2/}
1,1-Dichloroethane	μg/L	grab	once per month ^{2/}
1,2-Dichloroethane	μg/L	grab	once per month ^{2/}
1,1-Dichloroethylene	μg/L	grab	once per month ^{2/}
1,3-Dichlorobenzene	μg/L	grab	once per month ^{2/}
Methyl tertiary butyl ether (MTBE)	μg/L	grab	once per month ^{2/}
Tertiary butyl alcohol (TBA)	μg/L	grab	once per month ^{2/}
Total petroleum hydrocarbons (both gasoline and diesel fractions) ^{3/}	μg/L	grab	once per month ^{2/}
Antimony	μg/L	grab	once per month ^{2/}
Arsenic	μg/L	grab	once per month ^{2/}
Beryllium	μg/L	grab	once per month ^{2/}
Cadmium	μg/L	grab	once per month ^{2/}
Chromium (III)	μg/L	grab	once per month ^{2/}
Chromium (VI)	μg/L	grab	once per month ^{2/}
Copper	μg/L	grab	once per month ^{2/}
Lead	μg/L	grab	once per month ^{2/}
Mercury	μg/L	grab	once per month ^{2/}
Nickel	μg/L	grab	once per month ^{2/}
Selenium	μg/L	grab	once per month ^{2/}
Silver	μg/L	grab	once per month ^{2/}
Thallium	μg/L	grab	once per month ^{2/}
Zinc	μg/L	grab	once per month ^{2/}
Remaining Priority pollutants (see page T-16)	μg/L	grab	annually ^{4/}
Toxicity – acute ^{5/}	% survival	grab	Annually ^{6/}

1/ During periods of extended rainfall, no more than one sample per week need to be taken. Sampling shall be during the first hour of discharge. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report.

2/ Once a month during the wet season (October 1 – May 31).

- 3/ Analyses using USEPA Methods 418.1 and 8015 (Modified).
- 4/ If a pollutant is detected then the minimum monitoring frequency shall increase to once per month during the wet season (October 1 – May 31).until at least three consecutive test results are not detected, after which the frequency of analysis shall revert to annually.
- 5/ Refer to Item IV.
- 6/ Acute toxicity sampling and testing shall be conducted twice (semi-annually) a year in the first two years. If there is no discharge in the first semi-annual period, then an additional sample will be taken in the second semi-annual period. When all the four semi-annual results meet the compliance requirements, then the toxicity shall be conducted annually. If any of the four semi-annual testing results exceed the requirements, then sampling shall be continued on a semi-annual basis till results of four successive tests comply with the requirements.

IV. Toxicity Monitoring Requirements

A. Acute Toxicity Effluent Monitoring Program

1. The Discharger shall conduct acute toxicity tests on effluent grab samples by methods specified in 40 CFR Part 136 which cites USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, USEPA, Office of Water, Washington D.C. (EPA/821-R-02-012) or a more recent edition to ensure compliance in 100 % effluent.
2. The fathead minnow, *Pimephales promelas*, shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish effluent. The method for topsmelt is found in USEPA's *Short-term Method for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, Third Edition, October 2002 (EPA/821-R-02-014).
3. In lieu of conducting the standard acute toxicity testing with the fathead minnow, the Discharger may elect to report the results or endpoint from the first 48 hours of the chronic toxicity test as the results of the acute toxicity test.
4. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.

B. Quality Assurance

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).
2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manuals (EPA/600/4-91/002 and EPA/821-R-02-014), then the Discharger must re-sample and re-test at the earliest time possible.
3. Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.

C. Steps in Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE):

1. Following a TRE trigger, the Discharger shall initiate a TRE in accordance with the facility's initial investigation TRE workplan. At a minimum, the Discharger shall use EPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. The Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 30 days of the trigger, which will include, but not be limited to:
 - a. Further actions to investigate and identify the cause of toxicity;
 - b. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity;
 - c. Standards the Discharger will apply to consider the TRE complete and to return to normal sampling frequency; and,
 - d. A schedule for these actions.
2. The following is a stepwise approach in conducting the TRE:
 - a. Step 1 - Basic data collection. Data collected for the accelerated monitoring requirements may be used to conduct the TRE:
 - b. Step 2 - Evaluates optimization of the treatment system operation, facility housekeeping, and the selection and use of in-plant process chemicals;

- c. If Steps 1 and 2 are unsuccessful, Step 3 implements a TIE and employment of all reasonable efforts and using currently available TIE methodologies. The objective of the TIE is to identify the substance or combination of substances causing the observed toxicity;
- d. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;
- e. Step 5 evaluates in-plant treatment options; and,
- f. Step 6 consists of confirmation once a toxicity control method has been implemented.

Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of implementation of these control measures may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the facility's TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there is no longer toxicity (or six consecutive acute toxicity results are in compliance with effluent limitations established in Section I.B.3.(a)(i) of the Order).

- 3. The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the EPA acute and chronic manuals, EPA/600/6-91/005F (Phase I)/EPA/600/R-96-054 (for marine), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III) as guidance.
- 4. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required by Part I.B.3.a. of this permit, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.
- 5. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance, if appropriate.
- 6. The Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of

consistent toxicity.

D. Reporting

1. The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month as required by this permit. Test results shall be reported as % survival with the discharge monitoring reports (DMR) for the month in which the test is conducted.
2. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, then those results also shall be submitted with the DMR for the period in which the investigation occurred.
 - a. The full report shall be submitted on or before the end of the month in which the DMR is submitted.
 - b. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the acute toxicity average limit or chronic toxicity limit or trigger.
3. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the DMR. Routine reporting shall include, at a minimum, as applicable, for each test:
 - a. Sample date(s);
 - b. Test initiation date;
 - c. Test species;
 - d. End point values for each dilution (e.g., number of young, growth rate, percent survival);
 - e. NOEC value(s) in percent effluent;
 - f. IC₁₅, IC₂₅, IC₄₀ and IC₅₀ values in percent effluent;
 - g. TU_c values $\left(TU_c = \frac{100}{NOEC} \right)$;
 - h. Mean percent mortality (\pm standard deviation) after 96 hours in 100% effluent (if applicable);
 - i. NOEC and LOEC values for reference toxicant test(s);
 - j. C₂₅ value for reference toxicant test(s);
 - k. Any applicable charts; and
 - l. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).

4. The Discharger shall provide a compliance summary, which includes a summary table of toxicity data from all samples collected during that year.

The Discharger shall notify by telephone or electronically, this Regional Board of any toxicity exceedance of the limit or trigger within 24 hours of receipt of the results followed by a written report within 14 calendar days of receipt of the results. The verbal or electronic notification shall include the exceedance and the plan the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

V. Storm Water Monitoring

A. Rainfall Monitoring

The Discharger shall measure and record the rainfall on each day of the month. This information shall be included in the monitoring report for that month.

B. Visual Observation

The Discharger shall make visual observations of all storm water discharge locations on at least one storm event per month that produces a significant storm water discharge to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor. A "significant storm water discharge" is a continuous discharge of storm water for a minimum of one hour, or the intermittent discharge of storm water for a minimum of three hours in a 12-hour period.

VI. Receiving Water Monitoring Requirements

- A. To conduct reasonable potential analysis (RPA) receiving water monitoring data is required. RPA will determine: (1) if water quality-based effluent limitations for priority pollutants are required, and (2) to calculate effluent limitations, if required.

Receiving monitoring station shall be within 50 feet upstream from or near the discharge point (of storm drain) into Receiving Water (Los Angeles Inner Harbor). The receiving water monitoring shall be conducted for the first two years on an annual basis. The two time annual monitoring of the receiving water shall be conducted at the same time as annual effluent monitoring of priority pollutants.

The receiving water monitoring for toxic pollutants are listed below:

Constituent	Units	Type of Sample	Monitoring Frequency
pH	standard units	grab	annually
Hardness (as CaCO ₃)	mg/L	grab	annually
PAHs	µg/L	grab	annually
Antimony	µg/L	grab	annually
Arsenic	µg/L	grab	annually
Beryllium	µg/L	grab	annually
Cadmium	µg/L	grab	annually
Chromium (III)	µg/L	grab	annually
Chromium (VI)	µg/L	grab	annually
Lead	µg/L	grab	annually
Mercury	µg/L	grab	annually
Nickel	µg/L	grab	annually
Selenium	µg/L	grab	annually
Silver	µg/L	grab	annually
Thallium	µg/L	grab	annually
Zinc	µg/L	grab	annually
Cyanide	µg/L	grab	annually
Asbestos	µg/L	grab	annually
Acrolein	µg/L	grab	annually
Acrylonitrile	µg/L	grab	annually
Benzene	µg/L	grab	annually
Bromoform	µg/L	grab	annually
Carbon tetrachloride	µg/L	grab	annually
Chlorobenzene	µg/L	grab	annually
Chlorodibromomethane	µg/L	grab	annually
Chloroethane	µg/L	grab	annually
2-Chloroethylvinyl ether	µg/L	grab	annually
Chloroform	µg/L	grab	annually
Dichlorobromomethane	µg/L	grab	annually
1,1-Dichloroethane	µg/L	grab	annually
1,2-Dichloroethane	µg/L	grab	annually
1,1-Dichloroethylene	µg/L	grab	annually
1,2-Dichloropropane	µg/L	grab	annually
1,3-Dichloropropylene	µg/L	grab	annually
Ethylbenzene	µg/L	grab	annually
Methyl bromide	µg/L	grab	annually

Constituent	Units	Type of Sample	Monitoring Frequency
Methyl chloride	µg/L	grab	annually
Methylene chloride	µg/L	grab	annually
1,1,2,2-Tetrachloroethane	µg/L	grab	annually
Tetrachloroethylene	µg/L	grab	annually
Toluene	µg/L	grab	annually
1,2-Trans-dichloroethylene	µg/L	grab	annually
1,1,1-Trichloroethane	µg/L	grab	annually
1,1,2-Trichloroethane	µg/L	grab	annually
Trichloroethylene	µg/L	grab	annually
Vinyl chloride	µg/L	grab	annually
2-Chlorophenol	µg/L	grab	annually
2,4-Dichlorophenol	µg/L	grab	annually
2,4-Dimethylphenol	µg/L	grab	annually
2-Methyl-4,6-Dinitrophenol	µg/L	grab	annually
2,4-Dinitrophenol	µg/L	grab	annually
2-Nitrophenol	µg/L	grab	annually
4-Nitrophenol	µg/L	grab	annually
3-Methyl-4-Chlorophenol	µg/L	grab	annually
Pentachlorophenol	µg/L	grab	annually
Phenol	µg/L	grab	annually
2,4,6-Trichlorophenol	µg/L	grab	annually
Acenaphthene	µg/L	grab	annually
Acenaphthylene	µg/L	grab	annually
Anthracene	µg/L	grab	annually
Benzdine	µg/L	grab	annually
Benzo (a) Anthracene	µg/L	grab	annually
Benzo (a) Pyrene	µg/L	grab	annually
Benzo (b) Fluoranthene	µg/L	grab	annually
Benzo (g,h,l) Perylene	µg/L	grab	annually
Benzo (k) Fluoranthene	µg/L	grab	annually
Bis (2-Chloroethoxy) Methane	µg/L	grab	annually
Bis (2-Chloroethyl) Ether	µg/L	grab	annually
Bis (2-Chloroisopropyl) Ether	µg/L	grab	annually
Bis (2-Ethylhexyl) Phthalate	µg/L	grab	annually
4-Bromophenyl Phenyl Ether	µg/L	grab	annually
Butylbenzyl Phthalate	µg/L	grab	annually
2-Chloronaphthalene	µg/L	grab	annually
4-Chlorophenyl Phenyl Ether	µg/L	grab	annually

Constituent	Units	Type of Sample	Monitoring Frequency
Chrysene	µg/L	grab	annually
Dibenzo (a,h) Anthracene	µg/L	grab	annually
1,2-Dichlorobenzene	µg/L	grab	annually
1,3-Dichlorobenzene	µg/L	grab	annually
1,4-Dichlorobenzene	µg/L	grab	annually
3,3'-Dichlorobenzidine	µg/L	grab	annually
Diethyl Phthalate	µg/L	grab	annually
Dimethyl Phthalate	µg/L	grab	annually
Di-n-Butyl Phthalate	µg/L	grab	annually
2,4-Dinitrotoluene	µg/L	grab	annually
2,6-Dinitrotoluene	µg/L	grab	annually
Di-n-Octyl Phthalate	µg/L	grab	annually
1,2-Diphenylhydrazine	µg/L	grab	annually
Fluoranthene	µg/L	grab	annually
Fluorene	µg/L	grab	annually
Hexachlorobenzene	µg/L	grab	annually
Hexachlorobutadiene	µg/L	grab	annually
Hexachlorocyclopentadiene	µg/L	grab	annually
Hexachloroethane	µg/L	grab	annually
Indeno (1,2,3-cd) Pyrene	µg/L	grab	annually
Isophorone	µg/L	grab	annually
Napthalene	µg/L	grab	annually
Nitrobenzene	µg/L	grab	annually
N-Nitrosodimethylamine	µg/L	grab	annually
N-Nitrosodi-n-Propylamine	µg/L	grab	annually
N-Nitrosodiphenylamine	µg/L	grab	annually
Phenanthrene	µg/L	grab	annually
Pyrene	µg/L	grab	annually
1,2,4-Trichlorobenzene	µg/L	grab	annually
Aldrin	µg/L	grab	annually
alpha-BHC	µg/L	grab	annually
beta-BHC	µg/L	grab	annually
gamma-BHC	µg/L	grab	annually
delta-BHC	µg/L	grab	annually
Chlordane	µg/L	grab	annually
4,4'-DDT	µg/L	grab	annually
4,4'-DDE	µg/L	grab	annually
4,4'-DDD	µg/L	grab	annually
Dieldrin	µg/L	grab	annually

Constituent	Units	Type of Sample	Monitoring Frequency
Alpha-Endosulfan	µg/L	grab	annually
Beta-Endosulfan	µg/L	grab	annually
Endosulfan Sulfate	µg/L	grab	annually
Endrin	µg/L	grab	annually
Endrin Aldehyde	µg/L	grab	annually
Heptachlor	µg/L	grab	annually
Heptachlor Epoxide	µg/L	grab	annually
Polychlorinated Biphenyls ¹	µg/L	grab	annually
Toxaphene	µg/L	Grab	annually

¹ The sum of Aroclors 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

- B. Please note that the report for this required monitoring must be submitted with the self-monitoring reports in accordance with the schedule provided in Section I.A of this *M&RP* No. CI-6155.
- C. SWRCB-approved laboratory methods and the corresponding MLs for the examination of each priority pollutant are listed in Attachment A. Reporting requirements for the data to be submitted are listed in Attachment B. We recommend that you select the analytical method from Attachment A capable of achieving the lowest ML for each pollutant as listed on Attachment B. ML is necessary for determining compliance for a priority pollutant when an effluent limit is below the MDL.
- D. The laboratory analytical data shall include applicable MLs, MDL, quality assurance/quality control data, and shall comply with the reporting requirements contained in the Attachments A & B.

VII. Interim Monitoring and Reporting

- A. Monitoring for TCDD Equivalents –The Discharger shall conduct effluent/receiving water monitoring for the presence of the 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD or Dioxin) congeners. The monitoring shall be a grab sample with a minimum frequency of once during dry weather and once during wet weather for 1 year. The Discharger shall calculate Toxic Equivalence (TEQ) for each congener by multiplying its analytical concentration by the appropriate Toxicity Equivalence Factors (TEF). Compliance with the dioxin limitation shall be determined by the summation of the 17 individual TEQs.

Congeners	TEF
2,3,7,8-tetra CDD	1.0
1,2,3,7,8-penta CDD	1.0
1,2,3,4,7,8-hexa CDD	0.1
1,2,3,6,7,8-hexa CDD	0.1
1,2,3,7,8,9-hexa CDD	0.1
1,2,3,4,6,7,8-hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
1,2,3,4,7,8-hexa CDF	0.1
1,2,3,6,7,8-hexa CDF	0.1
1,2,3,7,8,9-hexa CDF	0.1
2,3,4,6,7,8-hexa CDF	0.1
1,2,3,4,6,7,8-hepta CDF	0.01
1,2,3,4,7,8,9-hepta CDF	0.01
Octa CDF	0.0001

Ordered by: _____
Dennis A. Dickerson
Executive Officer

Date: December 4, 2003