State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
Los Angeles Region
320 W. 4th Street, Suite 200,
Los Angeles, California

FACT SHEET
WASTE DISCHARGE REQUIREMENTS
For
ARCO TERMINAL SERVICES CORPORATION
(Long Beach Marine Terminal 3)

NPDES Permit No.: CA0000451
Public Notice No.: 02-053

FACILITY ADDRESS	FACILITY MAILING ADDRESS
Long Beach Marine Terminal 3	ARCO Terminal Services Corporation
1400 Pier "C" Street	1300 Pier B. Street
Long Beach, CA 90813	Long Beach, CA 90813
	Contact: Stephen D. Comley
	Telephone: (562) 499-2241

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 October 30, 2002.

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: November 14, 2002
Time: 9:00 a.m.
Location: City of Los Angeles, Board of Public Works Meeting Room,
200 North Spring Street,
Los Angeles, 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.

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 Miller Jennings, Senior Staff Counsel
1001 I Street, 22nd Floor
Sacramento, CA 95814

D. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special conditions, comments received, and other information are on file and may be inspected at 320 West 4th Street, Suite 200, Los Angeles, California 90013, at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Los Angeles Regional Board by calling (213) 576-6600.

E. 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

ARCO Terminal Services Corporation (hereinafter ATSC or Discharger) discharges wastes from its Long Beach Marine Terminal 3 under WDRs contained in Order No. 95-141 adopted

by the Regional Board on October 30, 1995. Order 95-141 serves as a NPDES permit (CA0000451) for the facility.

ATSC has filed a ROWD and has applied for renewal of its WDRs and NPDES permit.

III. Description of Facility and Waste Discharge

The Long Beach Marine Terminal 3 (Terminal 3), a petroleum crude oil transfer and storage facility, is located at 1400 Pier "C" Street in Long Beach, California. The facility occupies approximately 10.1 acres and the topography of the site is relatively flat. The facility consists of seven above ground storage tanks (AGSTs), operation building, and pump facility designed primarily for remote (unmanned) or manual operations. The AGSTs are located in a secondary containment structure consisting of a reinforced concrete firewall 15.75 feet in height and 10 inches thick to capture any leakage from the tanks. Crude oil and petroleum products are transported to and from the Terminal 3 by pipeline.

ATSC intermittently discharges up to 150,000 gallons per day (gpd) of storm water runoff which may pick up pollutants from tank diked containment areas and adjacent land, to the storm drain, then to Channel No. 3, Long Beach Inner Harbor, a water of the United States. The point of discharge is located at Latitude 33◦, 46', 15" North and Longitude 118◦, 12', 30" West. Storm water runoff is collected in the low spots or sump in the tank farm area. Prior to discharge, representative samples are collected and analyzed for pollutants of concern. If results indicate further treatment is necessary, the wastewater is transported via pipeline to the treatment system in ATSC Terminal 2 as described below.

All other wastewater generated at the Terminal 3 (i.e., groundwater, pipeline/tank hydrotest water, tank draws, boiler blowdown, non-contact cooling water, commingled storm water/process water are collected and transported via pipeline to the ATSC Terminal 2 located at 1300 West 8th Street, Long Beach, for treatment and discharge under NPDES Permit No. CA0000422, or transported via pipeline to ARCO Los Angeles Refinery for treatment and discharge to the sanitary sewer.

The Regional Board and the United States Environmental Protection Agency (USEPA) have classified the ATSC discharge as a minor discharge.

IV. Applicable Plans, Policies, and Regulations

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

1. The Federal Clean Water Act (CWA). The CWA requires that any point source discharge 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.
2. Title 40, Code of Federal Regulations (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 limitations for certain dischargers and establish procedures for NPDES permitting, including how to establish effluent limitations, for certain pollutants discharged by ARCO.

3. 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 of the Long Beach Inner Harbor:

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

   Potential: water contact recreation, and shellfish harvesting.

4. 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.

5. 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 section 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 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.

6. 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 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.

7. State and Federal antibacksliding and antidegradation policies that 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) of the CWA and in 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.

8. Effluent limitations are based on the CTR, Basin Plan, existing permit limits, and established in accordance with sections 301, 304, 306, and 307 of the federal CWA, and amendments thereto. These requirements, as they are met, will protect and maintain existing beneficial uses of the Long Beach Inner Harbor.

9. Existing waste discharge requirements contained in Board Order No. 95-141, adopted by the Regional Board on June 16, 1997. In some cases, permit conditions (effluent limitations and other special conditions) established in the existing waste discharge requirements have been carried over to this permit.

V. 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 beneficial uses of the receiving water.

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

- 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.

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 that 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:

1. **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 in the current permit were established for conventional pollutants including residual chlorine, metals and volatile organic compounds. Since the discharge of hydrostatic test water is not covered under this permit, the effluent limitations for residual chlorine is no longer prescribed.

2. **Technology-Based Effluent Limitations**

The existing permit for the ATSC facility required the Discharger to develop and implement a *Storm Water Pollution Prevention Plan* (SWPPP). The 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. Since ATSC discharges storm water, the proposed permit requires ATSC to update and continue to implement their SWPPP.

The proposed permit also requires the Discharger to update 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.

3. Water Quality-Based Effluent Limitations

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 have a reasonable potential.

(a) **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 is insufficient monitoring data available to perform RPA to 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. This permit includes an interim monitoring requirements to obtain the necessary data.

(b) 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:

1) If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).

2) Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).

3) Where sufficient effluent and receiving water data exist, use of a dynamic model that has been approved by the Regional Board.

(c) 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 has approved the State's 303(d) list of impaired water bodies. 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 1998 303(d) list and have been scheduled for TMDL development.

The 1998 State Board's California 303(d) List classifies the Long Beach Inner Harbor. The pollutants of concern, detected in the channel water, sediment, and in the fish tissue are dichlorodiphenyl trichloroethane (DDT), polychlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs).

(d) 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 a 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.

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.

The discharges at the ATSC facility occur only after a significant storm event; they are not continuous. Intermittent discharges are likely to have short-term toxic effects; therefore, to be consistent with Basin Plan requirements, the proposed Order includes acute toxicity limitations and testing.

2. **Specific Rational 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 re-issued permits are at least as stringent as in the existing permit.

Since there is insufficient monitoring data available to perform RPA and calculating WQBELs for the priority pollutants, the effluent limitations in the existing permit are prescribed in this Order until data are obtained to perform the RPA.

The following table presents the effluent limitations and the specific rationales for pollutants that are expected to be present in the discharge:

Constituents	Units	Discharge Limitations		Rationale
		Monthly Average	Daily Maximum	
Total Suspended Solids	Mg/L	50	75	E
Turbidity	NTU	50	75	E
BOD_5 20°C	Mg/L	20	30	E
Oil and Grease	Mg/L	10	15	E
Sulfides	Mg/L	---	1.0	E
Phenols	Mg/L	---	1.0	E
Benzene	µg/L	---	1.0	E
Ehtylbenzene	µg/L	---	10	E

Constituents	Units	Discharge Limitations		Rationale
		Monthly Average	Daily Maximum	
Toluene	µg/L	---	10	E
Xylene	µg/L	---	10	E
Carbon tetrachloride	µg/L	---	0.5	E
Tetrachloroethylene	µg/L	---	5	E
Trichloroethylene	µg/L	---	5	E
Vinyl chloride	µg/L	---	0.5	E
1,2-Dichlorobenzene	µg/L	---	130	E
1,3-Dichlorobenzene	µg/L	---	130	E
1,4-Dichlorobenzene	µg/L	---	5.0	E
1,1-Dichloroethane	µg/L	---	5.0	E
1,2-Dichloroethane	µg/L	---	5.0	E
1,1-Dichloroethylene	µg/L	---	6.0	E
2,4,6-Trichlorophenol	µg/L	---	1.2	E
Pentachlorophenol	µg/L	---	1.0	E
Antimony[1/]	µg/L	---	6.0	E
Arsenic [1/]	µg/L	---	50	E
Beryllium[1/]	µg/L	---	4.0	E
Cadmium [1/]	µg/L	---	5	E
Chromium VI [1/]	µg/L	---	50	E.
Lead [1/]	µg/L	---	50	E
Mercury [1/]	µg/L	---	0.002	E
Nickel[1/]	µg/L	---	100	E
Selenium [1/]	µg/L	---	50	E
Silver [1/]	µg/L	---	50	E

E = Existing permit limit
1/ = Discharge limitations for these metals are expressed as total recoverable.

5. Monitoring Requirements

According to Section 3.2 of the TSD, if data are unavailable or insufficient to conduct the RPA, the Regional Board must establish interim requirements that require additional monitoring for the pollutants in place of a WQBEL. Upon completion of the required monitoring, the Regional Board must use the gathered data to conduct the RPA and determine if a WQBEL is required. As prescribed in the Monitoring and Reporting Program, the Regional Board shall require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established.

(a) Effluent Monitoring

To assess the impact of the discharge 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.

(b) Effluent Monitoring for Reasonable Potential Determination

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 Discharger will be required to conduct an interim monitoring program for all CTR priority pollutants until April 2003. As described in the Monitoring and Reporting Program, monitoring reports must be submitted quarterly.

(c) Storm Water Monitoring and Reporting

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 of all storm water discharge locations 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. R4-2002-0178.