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
PAKTANK CORPORATION-LOS ANGELES
(32-Acre Terminal)

NPDES Permit No.: CA0063177
Public Notice No.: 02-054

FACILITY ADDRESS	FACILITY MAILING ADDRESS
Paktank Corporation – Los Angeles	Paktank Corporation – Los Angeles
32-Acre Terminal	401 Canal Street
2200 East Pacific Coast Highway	Wilmington, CA 90744
Wilmington, CA 90744	Contact: Richard Sandell
	Telephone: (310) 518-6415

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 18, 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

Paktank Corporation-Los Angeles (hereinafter Paktank or Discharger) discharges treated wastes from its 32-Acre Liquid Bulk Storage Terminal under WDRs contained in Order No. 95-041 adopted by this Board on April 3, 1995. Order 95-041 serves as the NPDES permit (CA0063177).

Paktank has filed a ROWD and has applied for renewal of its WDRs and NPDES permit. A site visit was conducted on August 21, 2001 to make observations and collect additional data to develop permit limits and conditions.

III. Description of Facility and Waste Discharge

The 32-Acre Terminal, an oil transfer and bulk storage facility, is located at 2200 East Pacific Coast Highway, Wilmington, California. Paktank is in the business of storing, loading, and transporting various petroleum and petrochemical products via rail, pipeline, truck, and vessel. The facility occupies a 32-acre site and consists of 22 bulk storage tanks, vehicle loading and off-loading areas, and a wastewater treatment system. Storage tanks hold at pour temperatures, volatile organic compounds, jet fuel, bunker oil, diesel, cutter stock, and recovered oil spillage. The tanks are grouped in four bermed (with 4-foot walls) pods.

The facility is divided into two portions, one of which is covered under the individual NPDES permit, and the other, under NPDES General Permit No. CAS000001 Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities. According to the facility's 1997 *Storm Water Monitoring Plan*, the areas covered under the NPDES General Permit consist of roadways and all other areas, with the exception of the loading racks, which fall outside of the four tank blocks (pods). The areas covered under the individual NPDES permit include the loading racks and any areas inside of the four bermed pods.

During the storm season, the storm water runoff from each of the four separators converge and are directed through a final API separator unit and five-cell unit clarifier before being discharged via the aforementioned storm drain. During periods of heavy rain, the five-cell unit clarifier is bypassed. The final API separator automatically provides backup treatment should any of the other four separators fail. The bermed areas can contain runoff from a 25-year/24-hour storm, which would then be gradually released to the final API separator of the treatment system. According to the NPDES permit application, Paktank estimates annual storm water flows from the interior drainage area of 2.4 million

gallons.

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:

A. 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.

B. 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.

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 lists the following beneficial uses for the Dominguez Channel estuary:

Existing: water contact recreation, non-water contact recreation, commercial and sport fishing, estuarine habitat, marine habitat, wildlife habitat, preservation of rare and endangered species, migration of aquatic organisms, and spawning, reproduction, or early development.

Potential: navigation

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 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.

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 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 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.

H. 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 Dominguez Channel estuary.

I. Existing waste discharge requirements contained in Board Order No. 95-041, adopted by the Regional Board on April 3, 1995. 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:

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 in the current permit were established for conventional pollutants, metals and PAH compounds.

B. Technology-Based Effluent Limitations

The existing permit for the 32 Acre 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 Paktank discharges storm water, the proposed permit requires Paktank 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.

C. 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.

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 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.

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:

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

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

   iii. Where sufficient effluent and receiving water data exist, use of a dynamic model that 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 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 Dominguez Channel estuary receives discharges from highly industrial areas. The 1998 State Board's California 303(d) List classifies the Dominguez Channel estuary as impaired. The pollutants of concern, detected in the water column, in the sediment, and in the fish tissue, include copper, lead, ammonia, coliform, chromium, zinc, DDT, PAHs, sediment toxicity, aldrin, benthic community effects, Chem A [refers to the sum of aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, HCH (including lindane), endosulfan, and toxaphene], chlordane, dieldrin, PCBs, and tributyltin.

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.

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 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.

D. 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	BPJ
Turbidity	NTU	50	75	BPJ
BOD_5 20°C	Mg/L	20	30	BPJ
Oil and grease	Mg/L	10	15	E
Settleable solids	ml/L	0.1	0.3	BPJ
Sulfides	Mg/L	---	1.0	E
Phenols	Mg/L	---	1.0	E
Benzene	µg/L	---	1.0	E
PAHs	ng/L	---	31	E
Arsenic [1/]	µg/L	---	190	E
Cadmium [1/]	µg/L	---	1.1 [2/]	E
Chromium VI [1/]	µg/L	---	11	E.
Copper	µg/L	---	11.8 [2/]	E.
Lead [1/]	µg/L	---	3.2 [2/]	E
Nickel[1/]	µg/L	---	255 [2/]	E
Silver			4.1 [2/]	E
Zinc [1/]	µg/L	---	106 [2/]	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-XXXX.

I. Introduction

Requirements for Discharges of Storm Water Associated with Industrial Activities. According to the facility's 1997 *Storm Water Monitoring Plan*, the areas covered under the NPDES General

II. Description of Facility and Waste Discharge

The facility's *Storm Water Monitoring Plan* (August 1997) states that wastewater and storm water generated in the tank pods and loading and unloading stations are directed to an internal drainage system that drains to the on-site wastewater treatment system. Wastewaters include interior drainage storm water, and previously included truck loading rack wash water. Recent discussions with the facility manager indicated that the practice of rinsing tank trucks has been discontinued for the past 6 months. The areas previously designated as truck loading, off-loading, and external tank truck wash stations are now only used as truck loading and off-loading areas. Tank truck rinse water will no longer contribute to the waste stream. The loading and off-loading areas will be cleaned by sweeping and steam cleaning.

T The facility is divided into two portions, one of which is covered under the individual NPDES permit, and the other, under NPDES General Permit No. CAS000001 Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities. According to the facility's 1997 *Storm Water Monitoring Plan*, the areas covered under the NPDES General he wastewaters are collected in catch basins and directed to an on-site wastewater treatment system. Wastewaters are collected and passed through an API oil/water separator before being discharged to the Laguna-Dominguez Flood Control Channel, south of Pacific Coast Highway at Latitude 33◦, 47', 30", and Longitude 118◦, 14', 0". The Laguna-Dominguez Flood Control Channel discharges to the Dominguez Channel estuary, a water of the United States.

During the storm season, the storm water runoff from each of the four separators converge and are directed through a final API separator unit and five-cell unit clarifier before being discharged via the aforementioned storm drain. During periods of heavy rain, the five-

cell unit clarifier is bypassed. The final API separator automatically provides backup treatment should any of the other four separators fail. The bermed areas can contain runoff from a 25-year/24-hour storm, which would then be gradually released to the final API separator of the treatment system. According to the NPDES permit application, Paktank estimates annual storm water flows from the interior drainage area of 2.4 million gallons. Figure 1 shows a schematic diagram of the wastewater flow.

The Regional Board and the United States Environmental Protection Agency (USEPA) have classified the Paktank 32-Acre Terminal as a minor discharge.

Effluent limits contained in the existing permit for Paktank and representative monitoring data from the previous permit term are presented in the following table:

Constituent (units)	Existing Effluent Limit			Reported Effluent Discharge	
	Instantaneous Maximum	Daily Average	30-Day Average	Maximum	Average
Flow (mgd)	--	--	--	0.58	--
Suspended Solids (mg/L)	150	--	50	120.0	15.0
5- Day Biochemical Oxygen Demand (mg/L)	60	--	20	29.0	8.2
Oil and Grease	15	--	10	24.0	9.4
Settable Solids (ml/L)	--	--	0.1	1.0	0.2
Arsenic (µg/L)	360	190	--	<10.0	--
Cadmium (µg/L) [1]	2.6	0.9	--	<0.5	--
Chromium (µg/L) [2]	16	11	--	13.2	--
Copper (µg/L) [1]	12.7	8.7	--	<10.0	--
Lead (µg/L) [1]	51.9	2.0	--	<20.0	--
Mercury (µg/L)	2.4	--	--	4.0	--
Nickel (µg/L) [1]	998.5	116.6	--	11.0	--
Silver (µg/L) [1]	2.2	--	--	<5.0	--
Zinc (µg/L) [1]	86.5	78.3	--	190.0	--
Phenols (mg/L)	1.0	--	--	0.130	0.07
Sulfides (mg/L)	1.0	--	--	0.8	0.1
PAHs (ng/L)	31	--	--	ND	ND
Effluent Toxicity (% survival)	[3]	[3]	[3]	100%	--
pH (Standard units) [4]	6.5 – 8.5	--	--	6.2 – 8.3	--
Dissolved Oxygen (mg/L) [4]	>5	--	--	<0.05 [5]	4.8

ND – All concentrations for PAH constituents reported as below detection levels.
[1] Limitations for these metals are hardness dependent. The limitations in the table are based on a hardness of 70 mg/L as $CaCO_3$.
[2] The discharger is allowed, at their option, to meet this limit as total chromium.
[3] Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70% survival.
[4] The permit requires compliance with these limitations in the receiving water; the permit requires monitoring for these parameters at the point of discharge from the effluent.

III. 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).

2. Code of Federal Regulations, Title 40 (40 CFR) – Protection of Environment, Chapter 1, Environmental Protection Agency, Subchapter D, Water Programs, Parts 122-125 and Subchapter N, Effluent Guidelines.

3. Water Quality Control Plan (Basin Plan) for the Coastal Watersheds of Los Angeles and Ventura Counties adopted June 13, 1994. The Plan provides water quality objectives that must be attained or maintained to protect designated beneficial uses and conform to the State's antidegradation policy. The Basin Plan lists the following beneficial uses for the Dominguez Channel watershed:

   Existing: water contact recreation, non-water contact recreation, commercial and sport fishing, estuarine habitat, marine habitat, wildlife habitat, preservation of rare and endangered species, migration of aquatic organisms, and spawning, reproduction, or early development.

   Potential: navigation.

4. Water Quality Control Plan for Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California (Thermal Plan), adopted by the State Board on September 18, 1975. This Plan provides temperature objectives for Dominguez Channel.

5. The California Toxics Rule (CTR) promulgated by the USEPA on May 18, 2000 (65 FR 31682) and codified at 40 CFR 131.38. The CTR establishes numerical criteria for priority pollutants for inland surface waters, enclosed bays, and estuaries. Although the CTR does not exclude storm water discharges from being regulated, a statement indicates that industrial storm water discharges must comply strictly with State water quality standards. In addition, the criteria established in the CTR supplement the water quality criteria promulgated for California in the National Toxics Rule (NTR) (65 FR 31683). Effluent limits for toxic pollutants are prescribed in this Order to implement the CTR.

6. The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) was adopted on March 2, 2000. The SIP was amended by Resolution No. 2000-30, April 26, 2000, and the Office of Administrative Law approved the SIP on April 28, 2000. The SIP applies to discharges of toxic pollutants in

the inland surface waters, enclosed bays, and estuaries of California that are subject to regulation under the State's Porter-Cologne Water Quality Control Act (Division 7 of the Water Code) and the federal CWA. This policy establishes the following: implementation provisions for priority pollutant criteria promulgated by USEPA through the CTR and for priority pollutant objectives established by the Regional Board in the Basin Plan; monitoring requirements for 2,3,7,8-TCDD equivalents; and toxicity control provisions. [If for storm water discharge only, TSD applies but not SIP procedures ? Check the language from the proposed General NPDES Permit for petroleum tank farm discharging storm water to the Dominguez Channel Watershed.]

7. Existing waste discharge requirements contained in Board Order No. 95-041, adopted by the Regional Board on April 3, 1995. 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.

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 water quality-based effluent limitations (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 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.

According to 40 CFR 122.44(k)(3) and (4), where technology-based ELGs are absent and it is infeasible to establish BPJ-based limits, the Board may require implementation of best management practices (BMPs). BMPs are measures to prevent the introduction of pollutants to discharges.

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 to inland surface waters, enclosed bays, and estuaries, the SIP establishes specific implementation 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.

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 and SIP 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. The SIP includes provisions for implementing priority pollutant criteria promulgated by USEPA in the CTR and NTR, and for water quality objectives for priority pollutants outlined in the Basin Plan.

Effluent limitations in the current permit were established for oil and grease, PAHs, phenols, and sulfides because they are typical components of the petroleum products stored on-site, specifically jet fuel, bunker oil, diesel, and cutter stock. General truck traffic and sweep cleaning operations may contribute solids, metals, and oxygen-demanding substances to the discharge; therefore, limits were set for suspended solids, settable solids, metals, and biochemical oxygen demand (BOD).

2. **Technology-Based Effluent Limits**

The Paktank facility has developed and implemented 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. Due to the fact that when discharges do occur at the Paktank facility, they are composed primarily of storm water, this permit will require that Paktank update and continue to implement their SWPPP.

3. **Water Quality-Based 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 specific procedures for determining reasonable potential, and if necessary for calculating WQBELs, are contained in the SIP.

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 saltwater 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 Dominguez Channel.

(a) Reasonable Potential Analysis (RPA)

In accordance with Section 1.3 of the SIP[TSD ?], the Regional Board will conduct a reasonable potential analysis for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Board would analyze effluent data to determine if a pollutant in a discharge has a reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have a reasonable potential, numeric WQBELs are required. The RPA considers water quality criteria and objectives outlined in the CTR, NTR, as well as the Basin Plan. To conduct the RPA, the Regional Board must identify the maximum observed effluent concentration (MEC) for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP [?]provides the procedures for determining reasonable potential to exceed water applicable water quality criteria and objectives. The SIP [?]specifies three triggers to complete a RPA:

1) Trigger 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limit is needed.

2) Trigger 2 – If MEC<C and background water quality (B) > C, a limit is needed.

3) Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

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.

The RPA was performed for the priority pollutants for which effluent data were available. The table below summarizes the monitoring data available to the Regional Board for use in performing a RPA for this discharger.

	Reported Monitoring Results				
Pollutant	**2/20/00**	**1/20/99**	**3/9/99**	**1/16/96**	**1/20/95**
Antimony (µg/L)	<100				
Arsenic (µg/L)	<100	<85	<500	<10	<100
Beryllium	<10				
Cadmium (µg/L)	<10	<5	<10	<0.5	<10
Chromium (VI) (µg/L)	13.2	<7	<10	<5	<10
Copper (µg/L)	<100	<10	<50	8	<50
Lead (µg/L)	<20	<50	<20	9	<20
Mercury (µg/L)	<0.2	<0.2	<0.5	4	<0.2
Nickel (µg/L)	<10	<30	<10	11	<10
Selenium (µg/L)	<100				
Silver (µg/L)	<10	<7	<10	<5	<10
Thallium (µg/L)	<100				
Zinc (µg/L)	<200	<100	<200	190	<200
Cyanide (µg/L)	<10				
Benzene (µg/L)	<1				
Chloroethane (µg/L)	<1				
Chloroform (µg/L)	<1				
1,1-Dichloroethane (µg/L)	<1				
1,2-Dichloroethane (µg/L)	<1				
1,1-Dichloroethylene (µg/L)	<1				
1,2-Dichloropropane (µg/L)	<1				

Pollutant	Reported Monitoring Results				
	2/20/00	**1/20/99**	**3/9/99**	**1/16/96**	**1/20/95**
Ethylbenzene (µg/L)	<1				
Methylene Chloride (µg/L)	<1				
1,1,2,2-Tetrachlroethane (µg/L)	<1				
Toluene (µg/L)	<1				
Trans 1,2-Dichloroethylene (µg/L)	<1				
1,1,1-Trichloroethane (µg/L)	<1				
1,1,2-Trichloroethane (µg/L)	<1				
Trichloroethylene (µg/L)	<1				
Vinyl chloride (µg/L)	<1				
Phenol (µg/L)*	55	<50	<50	<100	10
2,4,6-Trichlorophenol (µg/L)	<10				
Acenaphthene (µg/L)	<10	<1.8			
Acenaphthylene (µg/L)	<10	<2.3			
Anthracene (µg/L)	<10	<0.66			
Benzo (a) Anthracene (µg/L)	<10	<0.15			
Benzo (a) Pyrene (µg/L)	<10	<0.023			
Benzo (b) Fluoranthene (µg/L)	<10	<0.018			
Benzo (ghi) Perylene (µg/L)	<10	<0.076			
Benzo (k) Flouranthene (µg/L)	<10	<0.017			
Bis (2-Chloroethoxy) Methane (µg/L)	<10	<5			
Bis (2-Chloroethyl) Ether (µg/L)	<10	<5			
Bis (2-Chloroisopropyl) Ether (µg/L)	<10	<5			
Bis (2-Ethylhexyl) Phthalate (µg/L)	<10	<5			
2-Chloronaphthalene (µg/L)	<10	<5			
4-Chlorophenyl Phenyl Ether (µg/L)	<10	<5			
Chrysene (µg/L)	<10	<5			
Dibenzo (a,h) Anthracene (µg/L)	<10	<5			
1,2-Dichlorobenzene (µg/L)	<10	<5			
1,3-Dichlorobenzene (µg/L)	<10	<5			
1,4-Dichlorobenzene (µg/L)	<10	<5			
Dimethyl Phthalate (µg/L)	<10	<5			
Di-n-Butyl Phthalate (µg/L)	<10	<5			
2,4 Dinitrotoluene (µg/L)	<10	<5			
2,6 Dinitrotoluene (µg/L)	<10	<5			
Di-n-Octyl Phthalate (µg/L)	<10	<5			
Fluoranthene (µg/L)	<10	<0.21			
Fluorene (µg/L)	<10	<0.21			
Aldrin (µg/L)	<0.04				
alpha-BHC (µg/L)	<0.03				
beta-BHC (µg/L)	<0.06				
Chlordane (µg/L)	<0.14				
Dieldrin (µg/L)	<0.02				
alpha-Endosulfan (µg/L)	<0.14				
beta-Endosulfan (µg/L)	<0.04				

Pollutant	Reported Monitoring Results				
	2/20/00	1/20/99	3/9/99	1/16/96	1/20/95
Heptachlor (µg/L)	<0.03				
Heptachlor Epoxide (µg/L)	<0.1				
DDT (µg/L)	<0.12				
Total PCBs [2/] (µg/L)	<1				
Toxaphene (µg/L)	<2.4				

*Data for phenol concentrations were collected at most (all but two) of the sampling events between 3/21/95 – 4/17/00, thus providing a large dataset. Data presented in this table does not represent all of the data collected. The MEC used in the RPA is 130 µg/L, and was measured at two sampling events: 5/24/96 and 3/24/95, not shown in this table.

Based on the RPA, there was reasonable potential to exceed water quality standards for the following constituents: copper, lead, mercury, nickel, selenium, silver, thallium, zinc, cyanide, phenols, PAHs, benzo(a)anthracene, bis(2-chloroethyl)ether, dibenzo(a,h)anthracene, aldrin, alpha-BHC (lindane), beta-BHC, chlordane, dieldrin, alpha-endosulfan, beta-endosulfan, heptachlor, heptachlor epoxide, 4,4'-DDT, 4,4'-DDE, 4,4'-DDD, PCBs, and toxaphene. The table presented as Attachment A summarizes the RPA.

(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 1.4 of the SIP[?]. 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.

Based on the RPA, WQBELs were established for the following constituents: copper, lead, mercury, nickel, selenium, silver, thallium, zinc, cyanide, phenols, PAHs, benzo(a)anthracene, bis(2-chloroethyl)ether, dibenzo(a,h)anthracene, aldrin, alpha-BHC (lindane), beta-BHC, chlordane, dieldrin, alpha-endosulfan, beta-endosulfan, heptachlor, heptachlor epoxide, 4,4'-DDT, 4,4'-DDE, 4,4'-DDD, PCBs, and toxaphene.

(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. USEPA requires final effluent limits for all 303(d)-listed pollutants to be based on total maximum daily loads (TMDL) and waste loads allocation (WLA) results.

The Dominguez Channel estuary receives discharges from highly industrial areas. The 1998 State Board's California 303(d) List classifies the Dominguez Channel estuary as impaired. The pollutants of concern, detected in the water column, in the sediment, and in the fish tissue, include copper, lead, ammonia, coliform, chromium, zinc, DDT, PAHs, sediment toxicity, aldrin, benthic community effects, Chem A [refers to the sum of aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, HCH (including lindane), endosulfan, and toxaphene], chlordane, dieldrin, PCBs, and tributyltin.

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.

(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 shall 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 acute toxicity limits in the Basin Plan and the existing permit are necessary to ensure that this objective is protected.

Section 4 of the SIP [?]states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have reasonable potential to cause, or contribute to chronic toxicity in receiving waters.

The discharges at the 32-Acre Terminal occur continuously [If just Storm water why continously ?]and, due to the types of chemicals handled at the site, could contribute to long-term toxic effects. However, no chronic toxicity data is available for the discharge.

Therefore, Paktank will be required to conduct chronic toxicity testing in order to determine reasonable potential and establish WQBELs as necessary. In addition, the Order includes a chronic testing trigger hereby defined as an exceedance of 1.0 toxic units chronic (TU_c) in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed 1.0 TU_c in a critical life stage test.) If the chronic toxicity of the effluent exceeds 1.0 TU_c, the Discharger will be required to immediately implement accelerated chronic toxicity testing according to Monitoring and Reporting Program, item IV.D.1. If the results of two of the six accelerated tests exceed 1.0 TU_c, the Discharger shall initiate a toxicity identification evaluation (TIE).

4. **Specific Rationale for Each Numerical Effluent Limitation**

The table below summarizes the effluent limitations established for the wastewater and storm water runoff from the 32-acre site tank farms, bulk petroleum storage, and distribution facility.[For rationale, we should keep one whichever (E or CTR or both depends on which one is more stringent for ave or max) is more stringent. Delete RPA ? Clarify w/ TT and double ck the support statements in the following paragraphs within this section]

Constituent (Units)	Average Monthly Effluent Limitation Concentration	Maximum Daily Effluent Limitation Concentration	Rationale[3]
BOD_5 20°C (mg/L)	20	60	E, BPJ
Oil and Grease (mg/L)	10	15	E, BPJ
Total Suspended Solids (mg/L)	50	150	E, BPJ
Settleable solids (ml/L)	0.1	0.3	E, BPJ
Sulfides (mg/L)	--	1	E
Chlorine residual (mg/L)	--	0.1	BPJ, BP
Detergents (MBAS) (mg/L)	--	0.5	BPJ, BP
Phenols (mg/L)	--	1	E
Arsenic [1/] (µg/L)	36	69	E, CTR
Cadmium [1/] (µg/L)	0.86	2.62	E
Chromium (VI) [1/] (µg/L)	11	16	E, CTR
Copper [1/] (µg/L)	2.4	4.8	RPA, CTR
Lead [1/] (µg/L)	2.0	13.3	E, RPA, CTR
Mercury [1/] (µg/L)	0.051	0.103	RPA, CTR
Nickel [1/] (µg/L)	6.7	13.5	RPA, CTR
Selenium [1/] (µg/L)	58	117	RPA, CTR
Silver [1/] (µg/L)	0.95	1.9	RPA, CTR
Thallium [1/] (µg/L)	6.3	12.6	RPA, CTR
Zinc [1/] (µg/L)	45	86.5	E, RPA, CTR
Cyanide (µg/L)	0.5	1	RPA, CTR
Acenaphthene (µg/L)	2700	5400	E, CTR
Anthracene (µg/L)	110,000	220,000	E, BPJ, CTR
Benzo (a) Anthracene (µg/L)	0.049	0.098	RPA, CTR
Benzo (a) Pyrene (µg/L)	0.049	0.098	E, BPJ, CTR
Benzo (b) Fluoranthene (µg/L)	0.049	0.098	E, BPJ, CTR

Constituent (Units)	Average Monthly Effluent Limitation Concentration	Maximum Daily Effluent Limitation Concentration	Rationale[3]
Benzo (k) Flouranthene (µg/L)	0.049	0.098	E, BPJ, CTR
Chrysene (µg/L)	0.049	0.098	E, BPJ, CTR
Dibenzo (a,h) Anthracene (µg/L)	0.049	0.098	RPA, CTR
Fluoranthene (µg/L)	370	740	E, BPJ, CTR
Fluorene (µg/L)	14,000	28,000	E, BPJ, CTR
Indeno (1,2,3-cd) Pyrene (µg/L)	0.049	0.098	E, BPJ, CTR
Pyrene (µg/L)	11,000	22,000	E, BPJ, CTR
Bis (2-chloroethyl) Ether (µg/L)	1.4	2.81	RPA, CTR
Aldrin (µg/L)	0.00014	0.00028	RPA, CTR
alpha-BHC (µg/L)	0.013	0.026	RPA, CTR
beta-BHC (µg/L)	0.046	0.092	RPA, CTR
Chlordane (µg/L)	0.00059	0.00118	RPA, CTR
Dieldrin (µg/L)	0.00014	0.00028	RPA, CTR
alpha-Endosulfan (µg/L)	0.007	0.014	RPA, CTR
beta-Endosulfan (µg/L)	0.007	0.014	RPA, CTR
Heptachlor (µg/L)	0.00021	0.00042	RPA, CTR
Heptachlor Epoxide (µg/L)	0.00011	0.00022	RPA, CTR
4,4'-DDT (µg/L)	0.00059	0.00118	RPA, CTR
4,4'-DDE	0.00059	0.00118	RPA, CTR
4,4'-DDD	0.00059	0.00118	RPA, CTR
Total PCBs [2/] (µg/L)	0.00017	0.00034	RPA, CTR
Toxaphene (µg/L)	0.00016	0.00033	RPA, CTR

[1/] Discharge limitations for these metals are expressed as total recoverable.
[2/] Total Polychlorinated Biphenyls (PCBs) means the sum of Aroclor 1242, 1254, 1221, 1232, 1248, 1260, and 1016.
[3/] E=Existing Permit, BPJ=Best Professional Judgment, RPA=Reasonable Potential Analysis, CTR=California Toxics Rule, SIP=State Implementation Policy, BP=Basin Plan

Based on the RPA contained in the SIP [?]and applicable CTR criteria, WQBELs were established for the following constituents: copper, lead, mercury, nickel, selenium, silver, thallium, zinc, cyanide, phenols, PAHs, benzo(a)anthracene, bis(2-chloroethyl)ether, dibenzo(a,h)anthracene, aldrin, alpha-BHC (lindane), beta-BHC, chlordane, dieldrin, alpha-endosulfan, beta-endosulfan, heptachlor, heptachlor epoxide, 4,4'-DDT, 4,4'-DDE, 4,4'-DDD, PCBs, and toxaphene.

In addition, Section 402(o) of the Clean Water Act and 40 CFR 122.44(l) require that effluent limits standards or conditions in re-issued permits are at least as stringent as in the existing permit. Therefore, effluent limitations for BOD, oil and grease, total suspended solids, settable solids, sulfides, and phenols have been retained in the proposed Order based on limits specified in Paktank's existing permit. In addition, effluent limitations for arsenic, chromium (VI), copper, mercury, nickel, and silver have been established since they are also regulated under the existing Paktank permit. However, the effluent limitations have been revised to reflect the CTR criteria. Finally, since PAHs were regulated in the existing permit, effluent limitations are established in the proposed order for each of the individual PAHs

based on the CTR criteria, including acenaphthene, anthracene, benzo(a)pyrene, benzo(k)fluoranthene, chrysene, fluorene, indeno(1,2,3-cd)pyrene, and pyrene.

Effluent limitations for cadmium, lead, and zinc have been established because they are regulated under the existing Paktank permit. The effluent limitations for cadmium have been carried over from the permit because they provide for more stringent limitations than those calculated in accordance with the CTR and Section 1.4 of the SIP[?]. In addition, the daily average effluent limit for lead under the existing permit is more stringent than the effluent limit calculated based on the CTR, and will be retained in the reissued permit. Furthermore, the instantaneous maximum effluent limitation for zinc under the existing permit will be carried over to the reissued permit.

Effluent limits for conventional and non-conventional pollutants such as pH, temperature, oil and grease, BOD, suspended solids, settleable solids, sulfide, chlorine residual, detergent, and dissolved oxygen are based on the Basin Plan.

5. **Monitoring Requirements**

For regulated parameters, the previous permit for Paktank required monitoring once per discharge day for conventional, certain nonconventional pollutants (hardness[It's salt water criteria. Why this ?], sulfides, settleable solids, dissolved oxygen, and temperature), and certain toxic pollutants (phenols); monitoring requirements for metals and PAHs were annually. These frequencies remain unchanged from the previous permit.

Consistent with Section 1.3 of the SIP[?], sufficient effluent data is needed to complete the RPA, thus data must be collected for conductivity and hardness[?] on each discharge day. Monitoring for chlorine residual is a standard requirement and is required once per discharge day. Due to the nature of the organic compounds stored on site, total organic carbon is a likely constituent in the discharge and monitoring is required once per discharge day. Monitoring requirements are established for fecal coliform and ammonia because they are believed to cause impairment to the Dominguez Channel as indicated on the 303(d) List.

The SIP [?]states that dischargers are required to conduct self-monitoring programs for all priority pollutants over the life of the permit. The Discharger shall monitor the effluent, storm water, and receiving water as outlined in the Monitoring and Reporting Program.

(a) Effluent Monitoring

Methyl Tertiary Butyl Ether (MTBE) is a compound added to gasoline to enhance octane and to comply with Clean Air Act mandates. MTBE has a high solubility in water and is slow to biodegrade, and with the high percentage found in gasoline, it is a source of contamination to local water supplies. Primary sources of MTBE include underground storage tanks, above ground storage tanks, pipelines, and fuel spills. In response to an

Executive Order the Regional Board is requiring MTBE monitoring at facilities that manufacture, store, or distribute gasoline products.

The following shall constitute the effluent monitoring program for the outfall identified in the NPDES application:

Constituent	Units	Type of Sample	Sampling Frequency
Total flow	gal/day	----	once per discharge day[1/]
Temperature	°F or °C	grab	once per discharge day[1/]
pH	Standard Units	grab	once per discharge day[1/]
Conductivity, 25°C	umhos/cm	grab	once per discharge day[1/]
Hardness (as $CaCO_3$)	mg/L	grab	once per discharge day[1/]
Fecal Coliform	MPN/100 ml	grab	once per discharge day[1/]
Total organic carbon	mg/L	grab	once per discharge day[1/]
Total suspended solids	mg/L	grab	once per discharge day[1/]
Settleable solids	mg/L	grab	once per discharge day[1/]
Dissolved Oxygen	mg/L	grab	once per discharge day[1/]
BOD_5 20°C	mg/L	grab	once per discharge day[1/]
Oil and Grease	mg/L	grab	once per discharge day[1/]
Chlorine residual [2/]	mg/L	grab	once per discharge day[1/]
Ammonia (as N)	mg/L	grab	once per discharge day[1/]
Sulfides	mg/L	grab	once per discharge day[1/]
Detergents (MBAS)	mg/L	grab	once per discharge day[1/]
Methyl tertiary-butyl ether	µg/L	grab	once per discharge day[1/]
Phenol	µg/L	grab	semiannually[3/]
Arsenic	µg/L	grab	semiannually[3/]
Cadmium	µg/L	grab	semiannually[3/]
Total chromium	µg/L	grab	semiannually[3/]
Chromium (VI)	µg/L	grab	semiannually[3/]
Copper	µg/L	grab	semiannually[3/]
Lead	µg/L	grab	semiannually[3/]
Mercury	µg/L	grab	semiannually[3/]
Nickel	µg/L	grab	semiannually[3/]
Selenium	µg/L	grab	semiannually[3/]
Silver	µg/L	grab	semiannually[3/]
Thallium	µg/L	grab	semiannually[3/]
Zinc	µg/L	grab	semiannually[3/]
Cyanide	µg/L	grab	semiannually[3/]
Acenaphthene	µg/L	grab	semiannually[3/]
Anthracene	µg/L	grab	semiannually[3/]
Benzo (a) Anthracene	µg/L	grab	semiannually[3/]
Benzo (a) Pyrene	µg/L	grab	semiannually[3/]
Benzo (b) Fluoranthene	µg/L	grab	semiannually[3/]
Benzo (k) Flouranthene	µg/L	grab	semiannually[3/]
Chrysene	µg/L	grab	semiannually[3/]
Dibenzo (a,h) Anthracene	µg/L	grab	semiannually[3/]
Fluoranthene	µg/L	grab	semiannually[3/]
Fluorene	µg/L	grab	semiannually[3/]

Constituent	Units	Type of Sample	Sampling Frequency
Indeno (1,2,3-cd) Pyrene	µg/L	grab	semiannually[3/]
Pyrene	µg/L	grab	semiannually[3/]
Bis (2-Chloroethyl) Ether	µg/L	grab	semiannually[3/]
Aldrin	µg/L	grab	semiannually[3/]
alpha-BHC	µg/L	grab	semiannually[3/]
beta-BHC	µg/L	grab	semiannually[3/]
Chlordane	µg/L	grab	semiannually[3/]
Dieldrin	µg/L	grab	semiannually[3/]
alpha-Endosulfan	µg/L	grab	semiannually[3/]
beta-Endosulfan	µg/L	grab	semiannually[3/]
Heptachlor	µg/L	grab	semiannually[3/]
Heptachlor Epoxide	µg/L	grab	semiannually[3/]
4,4'-DDT	µg/L	grab	semiannually[3/]
4,4'-DDE	µg/L	grab	semiannually[3/]
4,4'-DDD	µg/L	grab	semiannually[3/]
Arochlor 1242	µg/L	grab	semiannually[3/]
Arochlor 1254	µg/L	grab	semiannually[3/]
Arochlor 1221	µg/L	grab	semiannually[3/]
Arochlor 1232	µg/L	grab	semiannually[3/]
Arochlor 1248	µg/L	grab	semiannually[3/]
Arochlor 1260	µg/L	grab	semiannually[3/]
Arochlor 1016	µg/L	grab	semiannually[3/]
Toxaphene	µg/L	grab	semiannually[3/]
Toxicity-acute	% survival	grab	annually
Toxicity-chronic	TU_c	grab	annually

[1/] During periods of extended rainfall, no more than one sample per week need to be taken. Sampling shall be taken 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/] Sampling shall consist of three discrete samples taken at 30-minute intervals and bracketing the times of peak concentrations.

[3/] Sampling shall be done during the first hour of discharge. For the dry seasons, a sample cannot be obtained during this period, a sample shall be obtained at the next opportunity of sampling and the reason for the delay shall be included in the report to satisfy the semiannual monitoring requirement.

(b) Effluent Monitoring for Reasonable Potential Determination

In compliance with the SIP [?], 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. Further, the SIP requires that the data be provided no later than May 2003. 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. The Discharger will be required to sample semiannually for calendar year 2002 and at least once in calendar year 2003, the results of which will be reported in the first quarter report (due April 15).

This interim monitoring shall occur at the following locations:

- Effluent discharge point.
- Receiving water. The monitoring stations shall be at 50 feet upstream from the discharge point.

The required monitoring frequency and type of sample of the effluent and the receiving water for toxic pollutants are listed below:

Constituent	Units	Type of Sample	Monitoring Frequency
pH	Standard Units	grab	once per discharge event[1/]
Hardness (as $CaCO_3$)	mg/L	grab	once per discharge event[1/]
Antimony	µg/L	grab	semiannually[2/]
Beryllium	µg/L	grab	semiannually[2/]
Asbestos	Fibers/L	grab	semiannually[2/]
Acrolein	µg/L	grab	semiannually[2/]
Acrylonitrile	µg/L	grab	semiannually[2/]
Benzene	µg/L	grab	semiannually[2/]
Bromoform	µg/L	grab	semiannually[2/]
Carbon tetrachloride	µg/L	grab	semiannually[2/]
Chlorobenzene	µg/L	grab	semiannually[2/]
Chlorodibromomethane	µg/L	grab	semiannually[2/]
Chloroethane	µg/L	grab	semiannually[2/]
2-Chloroethylvinyl ether	µg/L	grab	semiannually[2/]
Chloroform	µg/L	grab	semiannually[2/]
Dichlorobromomethane	µg/L	grab	semiannually[2/]
1,1-Dichloroethane	µg/L	grab	semiannually[2/]
1,2-Dichloroethane	µg/L	grab	semiannually[2/]
1,1-Dichloroethylene	µg/L	grab	semiannually[2/]
1,2-Dichloropropane	µg/L	grab	semiannually[2/]
1,3-Dichloropropylene	µg/L	grab	semiannually[2/]
Ethylbenzene	µg/L	grab	semiannually[2/]
Methyl bromide	µg/L	grab	semiannually[2/]
Methyl chloride	µg/L	grab	semiannually[2/]
Methylene chloride	µg/L	grab	semiannually[2/]
1,1,2,2-Tetrachloroethane	µg/L	grab	semiannually[2/]
Tetrachloroethylene	µg/L	grab	semiannually[2/]
Toluene	µg/L	grab	semiannually[2/]
1,2-Trans-dichloroethylene	µg/L	grab	semiannually[2/]
1,1,1-Trichloroethane	µg/L	grab	semiannually[2/]
1,1,2-Trichloroethane	µg/L	grab	semiannually[2/]
Trichloroethylene	µg/L	grab	semiannually[2/]
Vinyl chloride	µg/L	grab	semiannually[2/]
2-Chlorophenol	µg/L	grab	semiannually[2/]
2,4-Dichlorophenol	µg/L	grab	semiannually[2/]
2,4-Dimethylphenol	µg/L	grab	semiannually[2/]
2-Methyl-4,6-Dinitrophenol	µg/L	grab	semiannually[2/]

Constituent	Units	Type of Sample	Monitoring Frequency
2,4-Dinitrophenol	µg/L	grab	semiannually[2/]
2-Nitrophenol	µg/L	grab	semiannually[2/]
4-Nitrophenol	µg/L	grab	semiannually[2/]
3-Methyl-4-Chlorophenol	µg/L	grab	semiannually[2/]
Pentachlorophenol	µg/L	grab	semiannually[2/]
2,4,6-Trichlorophenol	µg/L	grab	semiannually[2/]
Acenaphthylene	µg/L	grab	semiannually[2/]
Benzidine	µg/L	grab	semiannually[2/]
Benzo (g,h,i) Perylene	µg/L	grab	semiannually[2/]
Bis (2-Chloroethoxy) Methane	µg/L	grab	semiannually[2/]
Bis (2-Chloroisopropyl) Ether	µg/L	grab	semiannually[2/]
Bis (2-Ethylhexyl) Phthalate	µg/L	grab	semiannually[2/]
4-Bromophenyl Phenyl Ether	µg/L	grab	semiannually[2/]
Butylbenzyl Phthalate	µg/L	grab	semiannually[2/]
2-Chloronapthalene	µg/L	grab	semiannually[2/]
4-Chlorophenyl Phenyl Ether	µg/L	grab	semiannually[2/]
1,2-Dichlorobenzene	µg/L	grab	semiannually[2/]
1,3-Dichlorobenzene	µg/L	grab	semiannually[2/]
1,4-Dichlorobenzene	µg/L	grab	semiannually[2/]
3,3-Dichlorobenzidine	µg/L	grab	semiannually[2/]
Diethyl Phthalate	µg/L	grab	semiannually[2/]
Dimethyl Phthalate	µg/L	grab	semiannually[2/]
Di-n-Butyl Phthalate	µg/L	grab	semiannually[2/]
2,4-Dinitrotoluene	µg/L	grab	semiannually[2/]
2,6-Dinitrotoluene	µg/L	grab	semiannually[2/]
Di-n-Octyl Phthalate	µg/L	grab	semiannually[2/]
1,2-Diphenylhydrazine	µg/L	grab	semiannually[2/]
Hexachlorobenzene	µg/L	grab	semiannually[2/]
Hexachlorobutadiene	µg/L	grab	semiannually[2/]
Hexachlorocyclopentadiene	µg/L	grab	semiannually[2/]
Hexachloroethane	µg/L	grab	semiannually[2/]
Isophorone	µg/L	grab	semiannually[2/]
Napthalene	µg/L	grab	semiannually[2/]
Nitrobenzene	µg/L	grab	semiannually[2/]
N-Nitrosodimethylamine	µg/L	grab	semiannually[2/]
N-Nitrosodi-n-Propylamine	µg/L	grab	semiannually[2/]
N-Nitrosodiphenylamine	µg/L	grab	semiannually[2/]
Phenanthrene	µg/L	grab	semiannually[2/]
1,2,4-Trichlorobenzene	µg/L	grab	semiannually[2/]
gamma-BHC	µg/L	grab	semiannually[2/]
delta-BHC	µg/L	grab	semiannually[2/]
Endosulfan Sulfate	µg/L	grab	semiannually[2/]
Endrin	µg/L	grab	semiannually[2/]
Endrin Aldehyde	µg/L	grab	semiannually[2/]

[1/] During periods of extended rainfall, no more than one sample per week need to be taken. Sampling shall be taken 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/] Sampling shall be done during the first hour of discharge. For the dry seasons, if a sample cannot be obtained during this period, a sample shall be obtained at the next opportunity of sampling and the reason for the delay shall be included in the report to satisfy the semiannual monitoring requirement.

In accordance with Section 3 of the SIP[?], the Discharger is also required to 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 one year. The Discharger is required to calculate Toxic Equivalence (TEQ) for each congener by multiplying its analytical concentration by the appropriate Toxicity Equivalence Factors (TEF) provided below.

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

(c) Receiving Water Monitoring

In addition to the requirements for monitoring the receiving water described in (b) above, Paktank will be required to perform general observations of the receiving water on a monthly basis and report the observations in the quarterly monitoring report. The Regional Board in assessing potential impacts of future discharges will use data from these observations. If no discharge occurred during the observation period, this shall be reported. Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations shall be made:

- Tidal stage, time, and date of monitoring;
- Weather conditions;
- Color of water;

- Appearance of oil films or grease, or floatable materials;
- Extent of visible turbidity or color patches;
- Direction of tidal flow;
- Description of odor, if any, of the receiving water; and
- Presence and activity of California Least Tern and California Brown Pelican.

INSERT FIGURE 1: WASTEWATER FLOW SCHEMATIC

INSERT ATTACHMENT A: REASONABLE POTENTIAL ANALYSIS TABLE (SEE FILE: CA0063177 RPA.XLS)