

**CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
LOS ANGELES REGION**

ORDER NO. R4-2005-0024

NPDES PERMIT NO. CA0053856

**CITY OF LOS ANGELES
TERMINAL ISLAND TREATMENT PLANT**

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

ORDER NO. R4-2005-0024

NPDES NO. CA0053856

**WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF LOS ANGELES
(Terminal Island Treatment Plant)
(File No. 58-025)**

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

PURPOSE OF ORDER

1. The City of Los Angeles (City or Discharger) discharges tertiary-treated wastewater from its Terminal Island Treatment Plant (TITP or Plant) under Waste Discharge Requirements (WDRs) contained in Order No. 93-014, adopted by this Regional Board on March 1, 1993. Order No. 93-014 also serves as a permit under the National Pollutant Discharge Elimination System (NPDES No. CA0053856), which regulates the discharge of treated wastewater to the Los Angeles Outer Harbor (Harbor) in San Pedro, California, a water of the State of California and of the United States.
2. Order No. 93-014 had an expiration date of February 10, 1998. Section 122.6 of Title 40, Code of Federal Regulations (40 CFR) and section 2235.4 of Title 23, California Code of Regulations (CCR), state that an expired permit continues in force until the effective date of a new permit, provided that the permittee has made a timely submittal of a complete application for a new permit. On November 25, 1997, the City filed a Report of Waste Discharge (ROWD) and applied to the Regional Board for reissuance of WDRs and NPDES permit to discharge tertiary-treated wastewater. Upon request by this Regional Board, the City on October 17, 2001, filed an updated ROWD using the new United States Environmental Protection Agency (USEPA) Form 2A. Therefore, the Discharger's permit has been administratively extended until the Regional Board acts on the new WDRs and NPDES permit.
3. This Order is the reissuance of WDRs that serves as an NPDES permit for the TITP.

FACILITY AND TREATMENT PROCESS DESCRIPTION

4. The City owns and operates the TITP, a publicly owned treatment work (POTW). The TITP is located at 445 Ferry Street, San Pedro, California, approximately 20 miles south of downtown Los Angeles. Figure P1 shows the vicinity map for the TITP. The Plant was originally built in 1935 with a treatment process comprised of preliminary treatment and primary treatment with the effluent discharged into the Harbor. TITP was upgraded to secondary treatment employing an activated sludge process in 1977, and further upgraded

to tertiary treatment in 1996. The start-up operation at the tertiary wastewater treatment process began in January 1997. TITP has an average dry weather design treatment capacity of 30 million gallons per day (mgd) and peak wet weather design flow capacity of 50 mgd. For the last seven years (1997 to 2004), sewage flow to the Plant averaged approximately 17 mgd. The Plant discharge of tertiary treated municipal wastewater to the Harbor averaged approximately 16 mgd for the same period.

5. Discharge to the Harbor is also subject to the State Water Resources Control Board's (State Board) Enclosed Bays and Estuaries Policy established in 1974, which requires POTW discharges to enclosed bays and estuaries to cease at the earliest practicable date. (The Los Angeles Harbor has been defined as an enclosed bay. See Finding 15.) On June 27, 1977, this Regional Board issued Order No. 77-113 requiring the City to phase out the TITP discharge to the Harbor at the earliest practicable date or demonstrate that the discharge enhances the quality of the receiving water. The City opted for the latter approach but was not successful in demonstrating that the TITP effluent enhances the water quality in the Harbor. On November 25, 1985, this Regional Board issued Order No. 85-77, requiring the City to cease the TITP discharge to the Harbor at the earliest practicable date. Additionally, on October 31, 1994, the Regional Board issued the Resolution No. 94-009 to approve the proposal by the City to phase out the discharge of tertiary-treated wastewater effluent from the TITP into the Harbor through implementation of a water recycling plan.
6. Treatment at the TITP consists of wastewater processing, advanced wastewater treatment processing, and biosolids processing. Figure P2 depicts the schematics of the TITP wastewater flow.
 - A. Wastewater Processing - consists of preliminary treatment (bar screening and aerated grit removal), primary treatment (primary sedimentation), secondary treatment (secondary clarification and activated sludge biological treatment), tertiary treatment (effluent filtration). Under normal operating conditions, the discharge of the tertiary-treated effluent to the Harbor is not chlorinated.
 - B. Advanced Treatment Processing – includes microfiltration and reverse osmosis.
 - a. Microfiltration: Tertiary treated wastewater is fed into automatic self cleaning 500-micron strainers and then the wastewater flow is split into two parallel trains. Each train contains five parallel Memcor microfiltration units. The microfiltration units are periodically backwashed to clean the membranes. The backwash is sent back to TITP's headworks for reprocessing. The microfiltration water is reclaimed for irrigation, industrial, and recreational use in accordance with other Water Recycling Requirements.
 - b. Reverse Osmosis (RO): The microfiltration filtrate is fed into two separate RO process trains. Each RO process train has two stages in series and use thin-film membranes. The RO water is chlorinated prior to being transported via pipeline and injected into the ground, under separate Water Recycling Requirements contained in Order No. R4-2003-0134, adopted on October 2, 2003. The RO water is injected into the Dominguez Gap Barrier Project to control seawater intrusion. This discharge is located at Latitude 33° 44' 34"

and Longitude 118° 15' 36". In addition, this water is reclaimed for irrigation, industrial, and recreational use in accordance with other Water Recycling Requirements contained in Order No. R4-2003-0025, adopted on January 30, 2003.

- c. Disinfection: A sodium hypochlorite (chlorine) contact basin has been designed to provide a contact time (CT) value of 450 mg/L-min with a modal contact time of at least 150 minutes for a flow of 5 mgd RO treated water.

The brine waste stream generated from the AWTF is allowed to be discharged into the Harbor. Sodium bisulfate is added to neutralize any chlorine added to the brine prior to discharge to the Los Angeles Harbor.

- C. Biosolids Processing – Sludge is thickened, anaerobically digested, dewatered, and hauled to Kern County for land application and reused as soil amendment.
7. The TITP treats the wastewater generated from industries in the Harbor area and serves approximately 130,000 people in the San Pedro, Wilmington, and Harbor City areas. Flow to the TITP consists of domestic, commercial and industrial wastewater. Industrial wastewater sources are from the fish processing industries, petroleum industries, and docking and storage facilities. For Fiscal Year 2003, industrial wastewater represented approximately 60% of the total flow to the plant. Raw wastewater reaches the TITP through a series of pumping plants and force mains.
 8. The USEPA and the Regional Board have classified the TITP as a major discharger. It has a Threat to Water Quality and Complexity rating of 1-A pursuant to CCR, Title 23, Section 2200.
 9. Pursuant to 40 CFR, Part 403, the City developed, and has been implementing, an industrial wastewater Pretreatment Program for TITP, which has been approved by the USEPA and the Regional Board.
 10. The TITP has two bypass points: one for primary effluent and the other for secondary effluent. The primary effluent bypass point is operated by a valve and has never been used since it was put in service in 1977. The secondary bypass has been used several times since the filter facility was put into service in January 1997. The secondary effluent can be automatically overflowed to the filtered effluent discharge channel if the filter influent pumps are inoperable or overloaded. The latest unfiltered secondary effluent discharged into the Harbor was on August 26, 2004.

If a bypass occurs, the City is required to meet the final effluent limitation at end of pipe (see Section I.2. of this Order).
 11. **Water Recycling Facility** – The Harbor Water Recycling Project – Dominguez Gap Barrier Project, adopted on October 2, 2003, is permitted to inject up to 5 mgd recycled water, produced at the TITP's Advanced Wastewater Treatment Facility (AWTF), to Dominguez Gap to prevent seawater intrusion. The Harbor Water Recycling Project – Nonpotable Reuse Project, adopted on January 30, 2003, is permitted to use the recycled water for irrigation, industrial, and recreational uses. These two projects are being

undertaken by the City to comply with Regional Board Resolution No. 94-009 to ultimately phase out discharge of the tertiary-treated wastewater into the Harbor.

Pursuant to Provisions 4a and 4b of Resolution No. 94-009 adopted on October 31, 1994, the discharge of wastewater effluent from TITP into the Harbor must be phased out at the earliest practicable date through implementation of a water recycling plan (by installing tertiary treatment facilities, reverse osmosis, pumps, and a distribution network) to provide recycled water to industrial and commercial users. The following represent the City's milestones for phase-out discharge:

- A. The tertiary treatment facilities were installed at the TITP in 1996 and start-up operation at the tertiary wastewater treatment process began in January 1997.
 - B. The AWTF was installed at the TITP in January 1998 and completed in August 2001. The test of the AWTF system was finished in June 2002. An estimated 6.75 mgd is treated by RO, generating an estimated 1.75 mgd of brine water for discharge through the existing outfall Serial No. 001 into the Harbor. Approximately 5 mgd of RO treated water is permitted to be delivered to the City's Department of Water and Power Harbor Generating Station and the County's Dominguez Gap salt water intrusion barrier. This usage is anticipated to double in six years. Total reuse of the TITP effluent is projected by 2020.
 - C. A recycled water pump station, equipped with three pumps with constant speed drivers, was built for the Harbor Water Recycling Project (HWRP) - Phase I in November of 1999 and completed in May of 2001. The pump station is designed to pump 5 mgd with two pumps operating and the other pump on stand-by. Additional recycled water pumps will be installed for future HWRP Phases II and III.
 - D. The HWRP-Phase I recycled water transmission pipeline constructed on April 26, 1999 consists of approximately 18,000 linear feet of 36-inch and 24-inch diameter ductile iron and steel pipeline. The distribution lateral to the Barrier is a 12-inch diameter pipe. The completion of the last reach of pipeline (Phase III) occurred in June of 2002.
12. **Storm Water Management** – The City collects storm water runoff at the TITP and directs it to a lift station where it is pumped to the facility headworks for treatment. On July 22, 1993, the City filed a Notice of Intent, and currently implements a Storm Water Pollution Prevention Plan (SWPPP) to comply with the State Board's General NPDES permit NO. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities (Order No. 97-03-DWQ). The discharge of storm water runoff is regulated under Order No. 97-03-DWQ, adopted by the State Board on April 17, 1997.

DISCHARGE OUTFALL AND RECEIVING WATER DESCRIPTION

13. Pursuant to Provision 4.c. of Resolution No. 94-009, and to accommodate the Port of Los Angeles' expansion project (2020 Plan) which deepens and widens the main channels of the Los Angeles Harbor, Discharge Serial No. 001 of the TITP effluent discharge location during the construction was modified three times and extended to 900 feet beyond the

shoreline near Pier 400 and to a depth of 32 feet (Table P1). The Outfall flow in the old 60-inch pipe was diverted to the modified/extended 72-inch pipe on July 10, 1996. The new discharge point is through an 800-foot, multi-port diffuser consisting of 100, 4-inch ports to improve initial dilution of the discharge, which begins at Latitude 33° 43' 27.3" and Longitude 118° 14' 40.2" and ends at Latitude 33° 43' 19.6" and Longitude 118° 14' 36.2". The original discharge point was at located Latitude 33° 44' 14" and Longitude 118° 15' 33".

Table P1 - The TITP Outfall Interim Discharge Coordinates and Associated Construction Activities		
Time Period	Geographic Coordinates	Comments
February 1995	Lat. 33° 43' 58.9" Long. 118° 15' 10.3"	Pier 400 Dredging and Landfill Project
May 1995	Lat. 33° 43' 59.3" Long. 118° 15' 10.5"	Pier 300 Container Wharf Construction project
August 1996	Lat. 33° 43' 19.6" Long. 118° 14' 36.2"	Final TITP Outfall with a diffuser, Discharge Serial No. 001

14. The receiving water for the TITP discharge is a part of the Harbor of the Regional Board-designated Dominguez Channel – Los Angeles/Long Beach Watershed Management Area (WMA) and a part of Dominguez Channel Watershed. The Los Angeles Harbor has been defined as an enclosed bay listed in *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan)*.
15. The Los Angeles Harbor is located in the southern portion of the Los Angeles Basin. Along the northern portion of San Pedro Bay is a natural embayment formed by a westerly extension of the coastline. It contains the Los Angeles Harbor, with the Palos Verdes Hills the dominant onshore feature. Historically, the area consisted of marshes and mudflats with a large marshy area, Dominguez Slough, to the north, and flow from the Los Angeles River entering where Dominguez Channel now drains.
16. Several locations in the Harbors, including the Long Beach Outer Harbor, have been listed as impaired or sites of concern under the Bay Protection and Toxic Cleanup Program (BPTCP) due to benthic community effects, DDT, PCBs (sediments and tissue), PAHs (sediment), sediment toxicity (not recurrent), and metals (zinc in tissue samples; zinc, lead, and copper in sediments). Two areas within the Harbor are considered to be toxic hot spots under the BPTCP: Dominguez Channel/Consolidated Slip, based on sediment concentrations of DDT, PCBs, cadmium, copper, lead, mercury, zinc, dieldrin, chlordane (all exceed sediment quality guidelines), sediment toxicity, and degraded benthic infaunal community; and Cabrillo Pier area, based on sediment concentrations of DDT, PCBs and copper, sediment toxicity and issuance of a human health (fishing) advisory for DDT and PCBs in white croaker, and exceedances of National Academy of Science guidelines for DDT in fish and shellfish. More detailed information of pollutants in the receiving water of the Los Angeles Harbor is available in Finding No. 48.

DISCHARGE QUALITY DESCRIPTION

17. The Discharger's data from the 2003 Annual Monitoring Report show that the average annual removal rate of BOD and total suspended solids has been >99.1% and >99.4%, respectively. The long-term average annual flow rate of the treated wastewater was 15.3 mgd.
18. Table P2 records the characteristics of the wastewater discharged, based on data submitted in the 2003 Annual NPDES Report.

Table P2 - The Characteristics of the Wastewater Discharged of the Year 2003					
CTR#	Constituent	Unit	Average	Maximum	Minimum
	Flow	mgd	15.3	23.1	10.8
	pH-Effluent	pH units	7.3	7.6	6.9
	Temperature	°F	78	90	76
	BOD ₅ 20 °C	mg/L	2	12	---
	Suspended solids	mg/L	1	2	---
	Settleable solids	ml/L	<0.03	0.05	---
	Total Chlorine Residual	mg/L	<0.01	0.05	---
	Turbidity	NTU	---	1	---
	Oil and grease	mg/L	0.1	4	---
	Ammonia-N	mg/L	0.5	3.2	---
1	Antimony	ug/L	<1.11	1.8	0.4
2	Arsenic	ug/L	2.04	4.1	0.4
3	Beryllium	ug/L	<0.086	0.73	<0.06
4	Cadmium	ug/L	<0.083	0.39	<0.08
5b	Chromium (VI)	ug/L	<2.43	5	3
6	Copper	ug/L	<3.78	15	2
7	Lead	ug/L	<2.65	4.9	0.72
8	Mercury	ug/L	<0.071	0.22	0.022
9	Nickel	ug/L	7.98	22.5	3.5
10	Selenium	ug/L	9.93	17.6	4.9
11	Silver	ug/L	<0.3	1.6	0.036
12	Thallium	ug/L	<0.85	4.3	0.11
13	Zinc	ug/L	21.28	72	5.55
14	Cyanide	ug/L	<0.84	5.1	0.005
23	Chlorodibromomethane	ug/L	<0.17	0.58	<0.12
26	Chloroform	ug/L	<0.24	0.57	<0.13
27	Bromodichloromethane	ug/L	<0.12	0.26	<0.1
36	Dichloromethane	ug/L	<0.25	1.42	<0.13
38	Tetrachloroethylene	ug/L	<0.18	0.4	<0.16
39	Toluene	ug/L	<0.088	0.17	< 0.08
42	1,1,2-Trichloroethane	ug/L	<0.14	<0.14	<0.14
68	Bis(2-ethylhexyl)phthalate	ug/L	<1.98	6.95	<0.3
77	1,4-Dichlorobenzene	ug/L	<0.085	0.24	<0.07
79	Diethyl phthalate	ug/L	<0.071	0.17	<0.06
81	Di-n-butyl phthalate	ug/L	<0.13	0.28	<0.07

CTR#	Constituent	Unit	Average	Maximum	Minimum
84	Di-n-octyl phthalate	ug/L	<0.42	2.88	<0.15
105	γ - Hexachlorocyclohexane	ug/L	<0.002	0.002	<0.002
111	Dieldrin	ug/L	<0.0012	0.004	<0.0009
112	Alpha-Endosulfan	ug/L	<0.0016	0.003	<0.0014

The remainder of the priority pollutants were all ND and are available in the Fact Sheet.

19. **Chronic Toxicity** – Prior to November 2002, TITP experienced a series of exceedances for chronic toxicity. In September 2002, the TITP manager formed a Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE) investigation group to develop a TRE Workplan and initiate a TIE to determine the cause(s) of chronic toxicity. The results of the TIE/TRE efforts could not establish a correlation between compounds present in the influent, or in the effluent. There is, however, a toxic effect observed and the potential association between the AWTF and the exceedances of chronic toxicity, because during the periods when the AWTF was online, there appeared to be a higher incidence of exceedances. However, it has not been conclusively determined that the operation of the AWTF caused the exceedances of chronic toxicity.
20. **Bacteria** – High bacteria counts at Cabrillo Beach have been found not to be caused by TITP effluent. The Environmental Monitoring Division of the Bureau of Sanitation, Department of Public Works, City of Los Angeles conducted two water quality studies in 1999. The study data suggested that the source(s) of bacterial contamination was not a result of effluent, sewage origin, or from storm drains. In addition, the study identified that the bird population inhabiting the Cabrillo Beach area is one of the potential sources of bacterial contamination. In September 2000, the Department of Recreation and Parks constructed an anti-bird structure over part of the inner Cabrillo sandy beach, resulting in a reduction of bacterial counts at Cabrillo Beach.

MIXING ZONE STUDIES/DILUTION RATIOS

21. On November 12, 2002, the Regional Board staff held a meeting with Bureau of Sanitation staff to discuss issues pertaining to the upcoming reissuance of the TITP NPDES Permit and requested that the City submit a Work Plan for a Mixing Zone Study (Study), which would address the eleven conditions under which a mixing zone is allowed, according to Section 1.4.2.2.A. of the State Implementation Plan (SIP). On February 21, 2003, the City submitted the Work Plan, which included an 8-week schedule for completing the Study. Regional Board staff approved the Work Plan on March 28, 2003. The final report of the Study was not received until May 28, 2004, because the City experienced unexpected technical difficulties in collecting the data of the Study.
22. The Study for the TITP outfall was conducted by Larry Walker Associates (LWA) for the City's Bureau of Sanitation Regulatory Affairs Division. The Study contains the results of a mixing zone study and a dilution credits study. The Study reveals that the effluent discharged into the Harbor would post insignificant or minimal impacts on eleven SIP conditions. The dilution ratios consist of two parts: acute mixing zone dilution ratios (D_a); and chronic mixing zone dilution ratios (D_c), which resulted from Near-Field Plume Model: UM3 – a component model of Visual Plumes and Far-Field Tracer Model: CH3D plus ICM,

respectively. Table P3 cited from the final report of the dilution credits study, dated May 14, 2004, shows the different dilution ratios for the five cases of different blended flows discharged into the Harbor.

Table P3 – Dilution Ratios of the Five Different Cases					
Case	A ^[1]	B ^[2]	C ^[3]	D ^[4]	E ^[5]
Tertiary Flow	17 mgd	17 mgd	30 mgd	30 mgd	17 mgd
RO Product	5 mgd	12.6 mgd	22.2 mgd	0 mgd	0 mgd
Brine Water	1.75 mgd	4.4 mgd	7.8 mgd	0 mgd	0 mgd
Effluent	12 mgd	4.4 mgd	7.8 mgd	30 mgd	17 mgd
D _a	86	66	61	72	82
D _c ^[6]	215	165	153	180	205

Footnote:

- [1]. Case A is the current situation and is based on Phase I water reuse of TITP's effluent of 17 mgd by utilizing 5 mgd of recycled water.
- [2]. Case B is the future situation and is based on Phase II (by 2009) water reuse of TITP's effluent of 17 mgd by utilizing 12.6 mgd of recycled water.
- [3]. Case C is the future situation and is based on Phase III (by 2020) water reuse of TITP's effluent of 30 mgd by utilizing 22.2 mgd of recycled water.
- [4]. Case D is based on the maximum dry weather design capacity without producing recycled water.
- [5]. Case E is based on the TITP's current effluent of 17 mgd without producing recycled water.
- [6]. D_c results from D_a divided by 0.4 (contour line).

- 23. On September 3, 2004, the State Board partially approved the results of the Study for the TITP Outfall conducted by LWA for the City's Bureau of Sanitation Regulatory Affairs Division. The resulting acute dilution ratios D_a ranged from 86:1 for Case A (15% brine – 85% effluent blend discharged at 12 mgd) to 82:1 for Case E (100% tertiary flow discharged at 17 mgd). ***These dilution ratios appear to be appropriate for establishing an acute mixing zone and dilution credit as defined in the SIP.***
- 24. The Study did not discuss why the 0.4 contour line was selected to delineate the chronic zone, as opposed to a contour line closer to the Outfall, such as the 0.6 or 0.8 contour line. The Study also did not discuss the possibility of overstating the chronic dilution ration by combining the results of the nearfield and farfield simulations in an additive manner. In light of the above uncertainties related to the farfield dilution simulation, the State Board suggests the use of a chronic dilution ration conservative applied as the unmodified acute dilution ration, i.e.,

$$D_c = D_a$$

This will result in a single dilution credit, similar to the minimum initial dilution ration D_m found in most ocean discharge permits.

25. The current quantity of tertiary-treated effluent discharged into the Harbor fluctuates and ranges between 15 and 23 mgd. The dilution ratio study (see Table P3) did not provide the sufficient information to cover the current daily maximal flow. Therefore, the most conservative dilution credit of 61 was chosen for calculating the final effluent limits for the purpose of protecting aquatic life, human health, and receiving water quality, and for the consideration of simplicity.

TIME SCHEDULE FOR COMPLIANCE

26. In accordance with the requirements of the TITP NPDES Permit No. CA0053856 adopted March 1, 1993, the Regional Board provided a time schedule for implementing various operational improvements at TITP and for reaching a final decision on how to comply with the discharge prohibition to remove the TITP discharge from the Harbor at the earliest practicable date. The City has complied with the time schedule. Table P4 shows the summary of the compliance history.

Task No.	Description	Completion Date (Permit)	Report of Compliance	Comments	Actual Date Completed
I	Provide reliable temporary power for all plant operations.	3/30/93	4/15/93	Completed on schedule.	3/30/93
II	Develop and implement an effective maintenance program on all equipment and accessories related to power supply.	4/30/93	5/13/93	CLAMMS is 100% complete. Initial implementation of the Electric System Life Cycle Replacement Program has completed. Continuation of the Life Cycle program is ongoing.	3/30/93
III	Provide a redundant and independent power source or permanent emergency power on-site all plant operations.	3/30/95	4/15/95	Phase I completed November 1992. Phase II completed December 1996.	12/01/96
IV	Develop and implement an effective Wet Weather Operations Plan (including contingency operation procedures).	3/30/93	4/15/93	Plans completed on schedule. Wet Weather Planning is continually under review, revision, and refinement.	3/30/93
V	Develop and implement an effective Contingency Plan to address organic and toxic shock loadings.	5/30/93	6/15/93	Completed on schedule.	5/30/93
VI	Obtain an exemption from State Board Policy prohibiting the discharge of Municipal Wastewater into the Los Angeles Harbor.	6/30/94	7/15/94	Resolution No. 94-009 adopted by the Regional Board on October 31, 1994.	10/31/94
VII	a. If an exemption is obtained (Task VI), complete construction and operate filtration facilities.	6/30/96	7/15/96	Filtration facility is fully operational.	12/12/96
				Item b. as exemption was	

Table P4 – Former Time Schedule for Compliance					
	b. If an exception is not granted (Task VI), complete construction of outfall, remove discharge from the Harbor, and complete construction of modifications to the plant to ensure consistent compliance with the requirements.	6/30/96	7/15/96	obtained based on Resolution No. 94-009.	

APPLICABLE PLANS, POLICIES AND REGULATIONS

- 27. **Federal Clean Water Act** – Section 301(a) of the federal Clean Water Act (CWA) requires that point source discharges of pollutants to a water of the United States must be done in conformance with a NPDES permit. NPDES permits establish effluent limitations that incorporate various requirements of the CWA designed to protect water quality. CWA section 402 authorizes the USEPA or States with an approved NPDES program to issue NPDES permits. The State of California has an approved NPDES program.
- 28. **Basin Plan** – The Regional Board adopted a revised *Water Quality Control Plan for the Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) on June 13, 1994, and amended by various Regional Board resolutions. This updated and consolidated plan represents the Board’s master quality control planning document and regulations. The State Board and the State of California Office of Administrative Law (OAL) approved the revised Basin Plan on November 17, 1994, and February 23, 1995, respectively. On May 26, 2000, the USEPA approved the revised Basin Plan except for the implementation plan for potential municipal and domestic supply (P* MUN) designated surface waters, which is not applicable to this discharge.

Ammonia Water Quality Objective (WQO) – The 1994 Basin Plan contained water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on March 4, 2004, by the Regional Board with the adoption of Resolution No. 2004-022. The amendment revised the Basin Plan by updating the ammonia objectives for inland surface waters not characteristic of freshwater such that they are consistent with the U.S. EPA "Ambient Water Quality Criteria for Ammonia (Saltwater)-1989." The amendment revised the regulatory provisions of the Basin Plan by adding language to Chapter 3 "Water Quality Objectives."

For inland surface waters not characteristic of freshwater (including enclosed bays, estuaries, and wetlands), the proposed objectives are a 4-day average concentration of unionized ammonia of 0.035 mg/L, and a one-hour average concentration of unionized ammonia of 0.233 mg/L. The proposed objectives are fixed concentrations of unionized ammonia, independent of pH, temperature, or salinity. The proposed amendment includes an implementation procedure to convert un-ionized ammonia objectives to total ammonia effluent limits. The proposed amendment also simplifies the implementation procedures for translating ammonia objectives into effluent limits in situations where a mixing zone has been authorized by the Regional Board. Finally, the proposed amendment revises the implementation procedure for determining saltwater, brackish or freshwater conditions, to be consistent with the proposed objectives. The proposed objectives will apply only to

inland surface waters not characteristic of freshwater (including enclosed bays, estuaries and wetlands) and do not impact the Ammonia Water Quality Objectives for ocean waters contained in the California Ocean Plan.

The Office of Administrative Law approved the amendment on September 15, 2004. USEPA has 60 calendar days to approve this amendment. The amendment will become final when staff files the Notice of Decision document and final Certificate of Fee Exemption with the California Department of Fish and Game.

The final effluent limitations for ammonia prescribed in this Order are based on USEPA's ammonia saltwater criteria, and the revised ammonia criteria apply at the end of pipe.

The Basin Plan (i) designates beneficial uses for surface and groundwater, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated (existing and potential) beneficial uses and conform to the State's antidegradation policy, and (iii) includes implementation provisions, programs, and policies to protect all waters in the Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. The 1994 Basin Plan was prepared to be consistent with all State and Regional Board plans and policies adopted in 1994 and earlier. This Order implements the plans, policies, and provisions of the Regional Board's Basin Plan.

29. **State Implementation Plan (SIP) and California Toxics Rule (CTR)** – The State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the State Implementation Plan or SIP) on March 2, 2000. The SIP incorporated the May 16, 1974 *Enclosed Bays and Estuaries Policy*, which contains narrative and numerical water quality objectives for the protection of beneficial uses. The SIP was amended by Resolution No. 2000-30, on 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 which are subject to regulation under the State's Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code) and the Federal Clean Water Act (CWA). This Policy also establishes the following:
- A. Implementation provisions for priority pollutant criteria promulgated by USEPA through the CTR and for priority pollutant objectives established by Regional Boards in their Basin Plans;
 - B. Monitoring requirements for priority pollutants with insufficient data to determine reasonable potential;
 - C. Monitoring requirements for 2, 3, 7, 8 – TCDD equivalents; and
 - D. Chronic toxicity control provisions.

The CTR became effective on May 18, 2000 (codified as 40 CFR Part 131.38). Toxic pollutant limits are prescribed in this Order to implement the CTR and Basin Plan.

In the CTR, USEPA promulgated criteria that protects the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. USEPA recognizes that adoption of a different risk factor is outside of the scope of the CTR. However, states have the discretion to adopt water quality criteria that result in a higher risk level, if it can demonstrate that the chosen risk level is adequately protective of the most highly exposed subpopulation, and has completed all necessary public participation. This demonstration has not happened in California. Further, the information that is available on highly exposed subpopulations in California supports the need to protect the general population at the 10^{-6} level. The Discharger may undertake a study, in accordance with the procedures set forth in Chapter 3 of USEPA's Water Quality Standards Handbook: Second Edition (EPA-823-B-005a, August 1994) to demonstrate that a different risk factor is more appropriate. Upon completion of the study, the State Board will review the results and determine if the risk factor needs to be changed. In the interim, the State will continue using a 10^{-6} risk level, as it has done historically, to protect the population against carcinogenic pollutants.

30. **Thermal Plan** – The State Board adopted the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan)* on January 7, 1971, and amended this Thermal Plan (State Board Resolution No. 75-89) on September 18, 1975. The Thermal Plan was developed in order to minimize the effects of wastes on the temperature objectives, effluent limits, and discharge prohibitions related to thermal characteristics of interstate waters, enclosed bays, and estuaries.
31. **Alaska Rule** – On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards (WQS) become effective for CWA purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under USEPA's new regulation (also known as the *Alaska rule*), new and revised standards submitted to USEPA after May 30, 2000, must be approved before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by EPA.
32. **Beneficial Uses** – Table P5 lists the designated beneficial uses in the Basin Plan for the Outer Harbor consisting of the Los Angeles and Long Beach Harbors, which are considered to be one oceanographic unit.

Outer Harbor	Existing:	navigation, water contact and non contact recreation, commercial, marine habitat, threatened or endangered species,
	Potential:	shellfish harvesting
Marinas	Existing:	Industry water supply, navigation, water contact and non contact recreation, commercial, marine habitat, threatened or endangered species,
	Potential:	shellfish harvesting
Public Beach Area	Existing:	navigation, water contact and non contact recreation, commercial, marine habitat, wildlife habitat, threatened or endangered species, shellfish harvesting

Table P5 – Los Angeles/Long Beach Harbor - Hydrologic Unit 405.12		
	Potential:	Spawning, reproduction, and/or early development
All Other Inner Areas	Existing:	Industry water supply, navigation, non contact recreation, commercial, marine habitat, threatened or endangered species
	Potential:	water contact recreation, shellfish harvesting
Dominguez Channel Estuary	Existing:	water contact and non contact recreation, commercial, estuary habitat, marine habitat, wildlife habitat, threatened or endangered species, migration of aquatic organisms, spawning, reproduction, and/or early development
	Potential:	navigation
Los Angeles River Estuary	Existing:	Industry water supply, navigation, water contact and non contact recreation, commercial, estuary habitat, marine habitat, wildlife habitat, threatened or endangered species, migration of aquatic organisms, spawning, reproduction, and/or early development, wetland habitat
	Potential:	shellfish harvesting

The requirements in this Order are intended to protect designated beneficial uses and enhance the water quality of the watershed. Effluent limits must protect both existing and potential beneficial uses.

33. **Antidegradation Policy** – On October 28, 1968, the State Board adopted Resolution No. 68-16, *Maintaining High Quality Water*, which established an antidegradation policy for State and Regional Boards. The State Board has, in State Board Order No. 86-17 and an October 7, 1987 guidance memorandum, interpreted Resolution No. 68-16 to be fully consistent with the federal antidegradation policy. Similarly, the CWA (section 304(d)(4)(B)) and USEPA regulations (40 CFR, Section 131.12) require that all permitting actions be consistent with the federal antidegradation policy. Together, the State and Federal policies are designed to ensure that a water body will not be degraded resulting from the permitted discharge, except under the conditions established in the State Antidegradation Policy and the federal regulation. The provisions of this Order are consistent with the antidegradation policies.

34. **Watershed Management** – This Regional Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in the Los Angeles and Ventura Counties. The approach is in accordance with the USEPA guidance on *Watershed Protection: A Project Focus* (EPA841-R-95-003, August 1995). The objective is to provide a comprehensive and integrated strategy resulting in water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically defined drainage basin or watershed. The Management Approach emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available. This Order and the accompanying *Monitoring and Reporting Program* fosters implementation of this approach. The *Monitoring and Reporting Program* requires the Discharger to participate in regional water quality monitoring programs in the Southern California Bight.

REGULATORY BASES FOR EFFLUENT AND RECEIVING WATER LIMITS AND OTHER DISCHARGE REQUIREMENTS

35. ***Water Quality Objectives and Effluent Limits*** - Water Quality Objectives (WQOs) and effluent limitations in this permit are based on:

- A. Applicable State Regulations/Policies/Guidances*
 - a. The plans, policies and water quality standards (beneficial uses + objectives + antidegradation policy) contained in the 1994 *Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*, as amended;
 - b. California Toxics Rule (40 CFR 131.38);
 - c. The State Board's "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California" (the State Implementation Plan or SIP), 2000;
 - d. Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California, 1975;
 - e. Administrative Procedures Manual and Administrative Procedure Updates; and,
 - f. Porter-Cologne Water Quality Act (Water Code § 13000 et seq).
- B. Applicable Federal Regulations/Policies/Guidances*
 - a. Federal Clean Water Act;
 - b. 40 CFR Parts 122, 125, and 131, among others;
 - c. Best Professional Judgment (pursuant to 40 CFR 122.44);
 - d. USEPA Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Programs Final May 31, 1996;
 - e. USEPA Whole Effluent Toxicity (WET) Control Policy (EPA-833-B-94-002), July 1994;
 - f. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (EPA-821-R-02-012), October 2002;
 - g. Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms (EPA-821-R-02-014), October 2002;

- h. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, August 1995);
 - i. Inspectors Guide for Evaluation of Municipal Wastewater Treatment Plants (EPA/430/9-79-010), April 1979;
 - j. Fate of Priority Pollutants in Publicly Owned Treatment Works Pilot Study (EPA-440/1-79-300), October 1979;
 - k. Technical Support Document for Water Quality Based Toxics Control (EPA-505/2-90-001), March 1991;
 - l. U.S. EPA NPDES Permit Writers' Manual (EPA-833-B-96-003), December 1996; and,
 - m. Ambient Water Quality Criteria for Ammonia (Saltwater) (EPA-440/5-88-004), April 1989.
- *: Please note that guidance documents are not binding, but are used solely for guidance, using BPJ, for permit development.

Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR Part 122.44(d) specifies that water quality based effluent limits 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.

36. **Mass and Concentration Limits** – 40 CFR section 122.45(f)(1) requires that, except under certain conditions, all permit limits, standards, or prohibitions be expressed in terms of mass units. 40 CFR section 122.45(f)(2) allows the permit writer, at their discretion, to express limits in additional units (e.g., concentration units). The regulations mandate that, where limits are expressed in more than one unit, the permittee must comply with both.

Generally, mass-based limits ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limits. Concentration-based effluent limits, on the other hand, discourage the reduction in treatment efficiency during low-flow periods and require proper operation of the treatment units at all times. In the absence of concentration-based effluent limits, a permittee would be able to increase its effluent concentration (i.e., reduce its level of treatment) during low-flow periods and still meet its mass-based limits. To account for this, this permit includes mass and concentration limits for some constituents, except during wet-weather, storm events that cause flows to the treatment plant to exceed the plant's design capacity.

37. **Maximum Daily Effluent Limitations** – Pursuant to 40 CFR section 122.45(d)(2), for POTW continuous discharges, all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall, unless impracticable, be stated as average weekly and average monthly discharge limitations. It is impracticable to only include average weekly and average monthly effluent limitations in

the permits, because a single daily discharge of certain pollutants, in excess amounts, can cause violations of water quality objectives. The effects of certain pollutants on aquatic organisms are often rapid. For many pollutants, an average weekly or average monthly effluent limitation alone is not sufficiently protective of beneficial uses. As a result, maximum daily effluent limitations, as referenced in 40 CFR section 122.45(d)(1), are included in the permit for certain constituents as discussed in the Fact Sheet accompanying this Order.

38. **Pretreatment** – Pursuant to 40 CFR section 403, the City developed and has been implementing an approved industrial wastewater Pretreatment Program This Order requires implementation of the approved Pretreatment Program.
39. **Sludge Disposal** – To implement CWA Section 405(d), on February 19, 1993, the USEPA promulgated 40 CFR Part 503 to regulate the use and disposal of municipal sewage sludge. This regulation was amended on September 3, 1999. The regulation requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. It is the responsibility of the City to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program.
40. **Stormwater Management** – CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR section 122.26 that established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, in November 1991, the State Board issued a statewide general permit, *General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities*. This permit was amended in September 1992 and reissued on April 17, 1997 in State Board Order No. 97-03-DWQ. The TITP is covered by general NPDES permit No. CAS000001.
41. **Clean Water Act Effluent Limitations** – Numeric and narrative effluent limitations are established pursuant to Section 301 (Effluent Limitations), Section 302 (Water Quality-Related Effluent Limitations), Section 303 (Water Quality Standards and Implementation Plans), Section 304 (Information and Guidelines [Effluent]), Section 305 (Water Quality Inventory), Section 307 (Toxic and Pretreatment Effluent Standards), and Section 402 (NPDES) of the CWA. The CWA and amendments thereto are applicable to the discharges herein.
42. **Antibacksliding Policies** – Antibacksliding provisions are contained in Sections 303(d)(4) and 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. Section 402(o)(2) outlines six exceptions where effluent limitations may be relaxed.
43. **Applicable Water Quality Objectives** – 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 use.

The Basin Plan includes narrative and numeric WQOs. The CTR promulgates numeric aquatic life criteria for 24 toxic pollutants and numeric human health criteria for 92 toxic

pollutants. A compliance schedule provision in the CTR and the SIP authorizes the State to issue schedules of compliance for new or revised NPDES permit limits based on the federal CTR criteria when certain conditions are met. 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.

44. **Types of Pollutants** – For CWA regulatory purposes, pollutants are grouped into three general categories under the NPDES program: conventional, toxic, and non-conventional. By definition, there are five conventional pollutants (listed in 40 CFR 401.16) – 5-day biochemical oxygen demand, total suspended solids, fecal coliform, pH, and oil and grease. Toxic or “priority” pollutants are those defined in Section 307(a)(1) of the CWA (and listed in 40 CFR 401.15 and 40 CFR 423, Appendix A) and include heavy metals and organic compounds. Non-conventional pollutants are those which do not fall under either of the two previously described categories and include such parameters as ammonia, phosphorous, chemical oxygen demand, whole effluent toxicity, etc.
45. **Technology-Based Limits for Municipal Facilities (POTWs)** – Technology-based effluent limits require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the Discharger to use any available control techniques to meet the effluent limits. The 1972 CWA required POTWs to meet performance requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level - referred to as “secondary treatment” - that all POTWs were required to meet by July 1, 1977. More specifically, Section 301(b)(1)(B) of the CWA required that USEPA develop secondary treatment standards for POTWs as defined in Section 304(d)(1). Based on this statutory requirement, USEPA developed national secondary treatment regulations, which are specified in 40 CFR 133. These technology-based regulations apply to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of five-day biochemical oxygen demand, total suspended solids, and pH.
46. **Water Quality Based Effluent Limits (WQBELs)** – Water quality-based effluent limits are designed to protect the quality of the receiving water by ensuring that State water quality standards are met by discharges from an industrial/municipal point source. If, after technology-based effluent limits are applied, a point source discharge will cause, have the reasonable potential to cause, or contribute to an exceedance of an applicable water quality criterion, then 40 CFR 122.44(d)(1) requires that the permit contain a WQBEL. Although the CWA establishes explicit technology-based requirements for POTWs, Congress did not exempt POTWs from additional regulation to protect water quality standards. As a result, POTWs are also subject to WQBELs. Applicable water quality standards for the Outer Harbor are contained in the Basin Plan and CTR, as described in previous findings.
47. **Water Quality Based Effluent Limitations for Toxic Pollutants** – Toxic substances are regulated in this permit by water quality based effluent limitations derived from the 1994 Basin Plan, the CTR, and/or best professional judgment (BPJ) pursuant to Part 122.44. If a discharge causes, has a reasonable potential to cause, or contribute to a receiving water excursion above a narrative or numeric objective within a State water quality standard,

federal law and regulations, as specified in 40 CFR 122.44(d)(1)(i), and in part, the SIP, require the establishment of WQBELs that will protect water quality. As documented in the fact sheet, pollutants exhibiting reasonable potential in the discharge, authorized in this Order, are identified in the Reasonable Potential Analysis (RPA) section and have final effluent limits. Reasonable potential was not triggered for some of the 126 priority pollutants and final limits cannot be determined at this time. The Discharger is required to gather the appropriate data and the Regional Board will determine if final effluent limits are needed. If final limits are needed, the permit will be reopened and limits will be included in the permit.

48. **303(d) List Pollutants** – On July 25, 2003, USEPA approved the State's most recent list of impaired waterbodies. The list (hereinafter referred to as the 303(d) list) was prepared in accordance with Section 303(d) of the Federal Clean Water Act to identify specific impaired waterbodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources.

The Los Angeles Harbor and nearby locations are on the 303(d) list for the following pollutants/ stressors, from point and non-point sources:

- A. Los Angeles Fish Harbor -- California Water Watershed No. 40518000: water column contamination (DDT, PAHs, and PCBs);
- B. Los Angeles Harbor Consolidated Slip -- California Water Watershed No. 40512000: benthic community effects, sediment contamination (cadmium, chromium, copper, lead, mercury, nickel, PAHs, toxaphene, and zinc), tissue and sediment contamination (chlordane, DDT, and PCBs), tissue contamination (dieldrin), and sediment toxicity;
- C. Los Angeles Harbor Inner Breakwater -- California Water Watershed No. 40512000: water column contamination (DDT, PAHs, and PCBs);
- D. Los Angeles Harbor Main Channel -- California Water Watershed No. 40518000: beach closures, tissue and sediment contamination (copper, zinc, DDT, PAHs, and PCBs), and sediment toxicity;
- E. Los Angeles Harbor Southwest Slip -- California Water Watershed No. 40512000: water column contamination (DDT and PCBs), and sediment toxicity; and,
- F. Los Angeles River Estuary -- California Water Watershed No. 40512000: sediment contamination (chlordane, DDT, lead, PCBs, and zinc).

The Regional Board revised the 303(d) list in 2002 and submitted the draft to the State Board for approval. The State Board had scheduled the draft 303(d) list, dated October 15, 2002, for approval at two of its meetings, however the item was postponed to hold additional workshops and to allow more time for the public to submit comments. The draft 303(d) list dated October 15, 2002, was revised on January 13, 2003, based on comments received. The draft 303(d) list, dated January 13, 2003, was adopted by the State Board at its February 4, 2003 meeting. The adopted 303(d) list was approved by USEPA on July 25, 2003.

49. **Total Maximum Daily Load (TMDL)** – A TMDL is a determination of the amount of a pollutant, from point, nonpoint, and natural background sources, including a margin of safety, that may be discharged to a water quality-limited body. Section 303(d) of the CWA established the TMDL process and the statutory requirements are codified at 40 CFR Part 130.7. States are required to develop a “303(d) list” of water-quality-limited waterbodies in the State. The State of California 303(d) list can be viewed at http://www.swrcb.ca.gov/tmdl/303d_lists.html. TMDLs must be developed for each pollutant water body combination on the 303(d) list. A TMDL development schedule, which includes TMDLs in Region 4, has been set by consent decree, Heal the Bay, Santa Monica Bay Keeper, et al. V. Browner, et al. (March 23, 1999). There are 13 pollutants on the 303(d) list for the Dominguez Channel above Vermont Avenue and 12 listed for Dominguez Channel below Vermont Avenue. No Dominguez Channel TMDL has yet been developed.
50. **Mixing Zones and Dilution Credits** – With the exception of effluent limitations derived from TMDLs, in establishing and determining compliance with effluent limitations for applicable human health, acute aquatic life, or chronic aquatic life priority pollutant criteria/objectives or the toxicity objective for aquatic life protection in a Regional Board’s Basin Plan, the Regional Board may grant mixing zone and dilution credits to dischargers in accordance with the provisions of Section 1.4.2 in the SIP. To the extent permitted by applicable law, mixing zones may be considered for TMDL-derived effluent limitations. Effluent limitations based on a TMDL shall meet the mixing zone conditions specified in Section 1.4.2.2.A in the SIP. Mixing zone and dilution credit of 61 have been approved by the State Board (see Finding No. 23)

The applicable priority pollutant criteria and objectives are to be met throughout a water body except within any mixing zone granted by a Regional Board. The allowance of mixing zones is discretionary and shall be determined on a discharge-by-discharge basis. The Regional Board may consider allowing mixing zones and dilution credits only for discharges with a physically identifiable point of discharge that are regulated through an NPDES permit issued by the Regional Board.

51. Specific effluent limitations for each constituent contained in this Order were developed in accordance with the foregoing laws, regulations, plans, policies, and guidance. The specific methodology and example calculations are documented in the Fact Sheet prepared by Regional Board staff that accompanies this Order.

REASONABLE POTENTIAL ANALYSIS

52. As specified in 40 CFR Part 122.44(d)(1)(i), permits are required to include limits for all pollutants “which the Director (defined as the Regional Administrator, State Director, or authorized representative in 40 CFR Part 122.2) determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard.”
- A. Using the method described in the TSD, the Regional Board has conducted Reasonable Potential Analysis (RPA) for:

- a. Chronic Toxicity * – RPA was conducted for Chronic Toxicity (Table F6 of the accompanying Fact Sheet) using the discharger's effluent data (January 2000 to June 2004). Chronic Toxicity effluent data is summarized in Table F7 of the accompanying Fact Sheet. The RPA compares the effluent data with USEPA's 1.67 TUc (60% of effluent) water quality criteria. The Discharger's effluent demonstrated Chronic Toxicity during the last permit cycle. Based on this information, the Regional Board has determined that there is a reasonable potential that the discharge will cause toxicity in the receiving water and, consistent with SIP section 4, the Order contains a narrative effluent limitation for Chronic Toxicity. The circumstances warranting a numeric Chronic Toxicity effluent limitation were reviewed by the State Board in SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 16, 2003, the State Board adopted Order No. WQO 2003-0012, deferring the numeric chronic toxicity effluent limitation issue until the adoption of Phase II of the SIP, and replaced the numeric chronic toxicity effluent limitation with a narrative effluent limitation for the time being.
- b. Ammonia * – RPA was conducted for ammonia nitrogen (Table F6 of the accompanying Fact Sheet) using the Discharger's receiving water data of Years 2000 and 2002 in Table F8 of the accompanying Fact Sheet and total ammonia nitrogen effluent data in Table F9 of the accompanying Fact Sheet. The RPA compares the projected effluent data with the Basin Plan WQOs. The Discharger's projected effluent from TITP exceeded the Basin Plan WQOs for Ammonia during the last permit cycle. Based on this information, the Regional Board has determined that there is a reasonable potential that the discharge will cause or contribute to an exceedance of the Basin Plan WQOs and, consistent with 40 CFR 122.44(d), the Order contains numeric effluent limitations for ammonia, based on the corresponding Basin Plan WQOs.
- c. MBAS * – RPA was conducted for MBAS (Table F6 of the accompanying Fact Sheet) using the Discharger's effluent data (January 1998 to June 2004) from their self-monitoring reports. MBAS is summarized in Table F10 of the accompanying Fact Sheet. The RPA compares the effluent data with the Basin Plan water quality objective (WQOs). The Discharger's projected effluent exceeded the Basin Plan WQOs for MBAS during the last permit cycle. Based on this information, the Regional Board has determined that there is a reasonable potential that the discharge will cause or contribute to an exceedance of the Basin Plan WQOs and, consistent with 40 CFR 122.44(d), therefore, the Order contains a numeric effluent limitation for MBAS.

* Receiving water (background) concentrations are not available. Therefore, the dilution ratios are not applicable. The Discharger shall collect monthly receiving water data for one year. Once the data are available, the permit will be reopened and the dilution ratio for these constituents will be granted, if the City demonstrates that the concentrations of these constituents in the receiving water are less than the relevant WQOs.

- B. Using the method described in the SIP, the Regional Board has conducted a RPA using the discharger's effluent data contained in Table F12. The RPA compares the effluent data with water quality objectives in the Basin Plan and CTR.
- a. **Reasonable Potential Determination** – The RPA (per the SIP) involves identifying the observed maximum pollutant concentration in the effluent (MEC) for each constituent based on the effluent concentration data. There are three tiers to determining reasonable potential. If any of the following three tiers is triggered, then reasonable potential exists:
- i. For the first tier, the MEC is compared with the lowest applicable Water Quality Objective (WQO), which has been adjusted for pH, hardness and translator data, if appropriate. If the MEC is greater than the (adjusted) WQO, then there is reasonable potential for the constituent to cause or contribute to an excursion above the WQO and a WQBEL is required. However, if the pollutant was not detected in any of the effluent samples and all of the reported detection limits are greater than or equal to the WQO, proceed with Tier 2. The Regional Board exercised its discretion in identifying all available, valid, relevant, representative data and information in accordance with SIP Section 1.2 (page 8).
 - ii. For the second tier, if the MEC is less than the adjusted WQO, then the observed maximum ambient background concentration (B) for the pollutant is compared with the adjusted WQO. If B is greater than the adjusted WQO, then a WQBEL is required. If B is less than the WQO, then a limit is only required under certain circumstances to protect beneficial uses. If a constituent was not detected in any of the effluent samples and all of the detection limits are greater than or equal to the adjusted WQO, then the ambient background water quality concentration is compared with the adjusted WQO. The Regional Board exercised its discretion in identifying all available, applicable ambient background data in accordance with SIP Section 1.4.3 (page 16).
 - iii. For the third tier, other information is used to determine RPA, such as the current CWA 303(d) List. Section 1.3 of the SIP describes the type of information that can be considered in Tier 3.

For all parameters that have reasonable potential to cause or contribute to an exceedance of a WQO/criteria, numeric WQBELs are required. Section 1.4, Step 5 of the SIP (Page 8) states that maximum daily effluent limitations (MDELs) shall be used for POTWs in place of average weekly limitations. WQBELs are based on CTR, USEPA water quality criteria, and Basin Plan objectives.

If the data are unavailable or insufficient to conduct the RPA for the pollutant, or if all reported detection limits of the pollutant in the effluent are greater than or equal to the WQO, the Regional Board shall establish interim requirements, in accordance with Section 2.2.2. of the SIP, that require additional monitoring for the pollutant in place of a WQBEL. The

effluent monitoring data from July 1997 to May 2004 indicate that dioxin, benzidine, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, 3,3-dichlorobenzidine, indeno(1,2,3-cd)pyrene, aldrin, chlordane, 4,4'-DDT, 4,4'-DDE, 4,4'-DDD, heptachlor, heptachlor epoxide, PCB 1016, PCB 1221, PCB 1232, PCB 1242, PCB 1248, PCB 1254, PCB 1260, and toxaphene were not detected and their lowest detection limits were greater than their WQO.

Therefore these constituents require interim requirements. Section 2.4.5 of the SIP discusses how compliance will be determined in those cases. The Discharger should work with the laboratory to lower detection levels to meet applicable and reliable detection limits; follow procedures set forth in 40 CFR Part 136; and, report the status of their findings in the annual report. During the term of the permit, if and when monitoring with lowered detection limits shows any of the priority pollutants at levels exceeding the applicable WQOs, the Discharger will be required to initiate source identification and control for the particular pollutant. Appendix 4 of the SIP lists the minimum levels and laboratory techniques for each constituent.

Upon completion of the required monitoring, the Regional Board shall use the gathered data to conduct RPA and determine if a WQBEL is required. However, if Tier 1 or Tier 3 triggered reasonable potential for a pollutant, then the lack of receiving water data for Tier 2 evaluation would not prohibit the establishing of WQBELs in the permit.

A numerical limit has not been prescribed for a toxic constituent if it has been determined that it has no reasonable potential to cause or contribute to excursions of water quality standards. However, if the constituent had a limit in the previous permit, and if none of the Antibrackishwater exceptions apply, then the limit will be retained. A narrative limit to comply with all water quality objectives is provided in *Standard Provisions* for the priority pollutants, which have no available numeric criteria.

- b. **RPA Data.** Regional Board staff used tertiary-treated effluent data collected between July 1997 and June 2004 (summarized in Table F11 of the accompanying Fact Sheet) and the most conservative dilution credit of 61 approved by the State Board on September 3, 2004 to run the Reasonable Potential Analysis. Table F12 of the Fact Sheet summarizes the RPA, lists the constituents, and where available, the lowest, adjusted WQO, the MEC, the "Reasonable Potential" result, and the limits from the previous permit.
 - i. **Metals Water Quality Objective.** For metals, the lowest applicable WQO was expressed as total recoverable, and where applicable, adjusted for hardness. Regional Board Staff used a hardness value of 400 mg/L, which is the highest value allowed to convert the dissolved metal CTR criteria into the total recoverable metal form.

- ii. **Interim Monitoring Requirements.** In accordance with the SIP, the Regional Board may impose interim monitoring requirements upon the Discharger, so that the Discharger obtains adequate ambient, background water data for priority pollutants upstream of the discharge point as well as suitable effluent data. The Executive Officer directed the Discharger to begin an interim monitoring program for the duration of 18 months, beginning in July 2001. The Discharger collected samples on a monthly basis for all priority pollutants, with the exception of asbestos and 2,3,7,8-TCDD that were sampled semiannually, and reported the results quarterly to the Regional Board. Section 1.3, Step 8, of the SIP authorizes the Regional Board to use the gathered data to conduct a RPA, as outlined in Steps 1 through 7, and to determine if a water quality-based effluent limitation is required.

A reopener provision is included in this Order that allows the permit to be reopened to allow the inclusion of new numeric limitations for any constituent that exhibits reasonable potential to cause or contribute to exceedance of applicable water quality objectives.

- C. The numeric limitations contained in this Order are intended to protect and maintain existing and potential beneficial uses of the receiving waters. Environmental benefits provided by these limitations are reasonable and necessary.
- D. Regional Board staff have determined that copper, lead, mercury, nickel, silver, cyanide, bis(2ethylhexyl)phthalate, and dieldrin showed reasonable potential to exceed respective CTR objectives, and, therefore, CTR-based effluent limitations are required.
 - a. There are no dilution credits applied for the final effluent limits of copper, lead, mercury, and silver, because these priority pollutants have been detected in the receiving water, at least once, at a concentration greater than the CTR objectives prescribed in this Order.
 - b. There are no dilution credits applied for the final effluent limits of cyanide and dieldrin. Although these pollutants were not detected in the receiving water, their lowest detection limits were greater than their WQO.
 - c. The most conservative dilution credit of 61 is applied for nickel and bis(2-ethylhexyl)phthalate final effluent limits, because nickel and bis(2-ethylhexyl)phthalate concentrations detected in the receiving water are less than the CTR objective prescribed in this Order.

Once a TMDL has been developed, the permit can be reopened and WLA and compliance schedule will be incorporated into the permit.

53. This Order is consistent with State and Federal antidegradation policies in that it does not authorize a change in the quantity of wastewater discharged by the facility, nor does it authorize a change or relaxation in the manner or level of treatment. As a result, both the quantity and quality of the discharge are expected to remain the same consistent with

antidegradation policies. The accompanying Monitoring and Reporting Program requires continued data collection, and if monitoring data show a reasonable potential for a constituent to cause or contribute to an exceedance of water quality standards, the permit will be reopened to incorporate appropriate WQBELs. Such an approach ensures that the discharge will adequately protect water quality standards for potential and existing uses, and conforms with antidegradation policies and antibacksliding provisions.

54. **Pollutant Minimization Program.** The Discharger shall be required to develop a Pollutant Minimization Program (PMP), in accordance with Section 2.4.5.1. of the SIP, when there is evidence that the priority pollutant is present in the effluent above an effluent limitation.
55. The Discharger shall propose a plan with a logical sequence of actions to achieve full compliance with the limits in this Order. The first phase of the plan is to investigate the sources of the high levels of contaminants in the collection system. If the sources can be identified, source reduction measures (including, when appropriate, Pollution Minimization Plans) will be instituted. At the time this Order is considered, the Discharger is unsure whether or not all sources contributing to the high contaminant levels can be identified. Therefore, a parallel effort will be made to evaluate the appropriateness of Site Specific Objectives (SSO) and, where appropriate, Use Attainability Analyses (UAA), and modifications to and/or construction of treatment facilities. If it is determined that a SSO or UAA is necessary and appropriate, the Discharger will submit a written request for a SSO study, accompanied by a preliminary commitment to fund the Study, to the Regional Board. The Discharger will then develop a workplan and submit it to the Regional Board for approval prior to the initiation of the studies.

INTERIM REQUIREMENTS

56. **Ammonia, Copper, Lead, Mercury, Silver, Cyanide, and Dieldrin** - Data submitted in previous self-monitoring reports indicated that these constituents have been detected in the effluent/receiving water, at least once, at a concentration greater than the limits prescribed in this Order. The TITP, therefore, may not be able to achieve consistent compliance with the Basin Plan's Ammonia WQO and the CTR-based final effluent limits for these constituents. The Discharger has the option to conduct studies to obtain the necessary data to develop site-specific objectives for mercury, and dieldrin for the protection of human health from the consumption of fish and shellfish taken from the receiving waters; and, for copper, lead, silver, and cyanide for the protection of aquatic life. Accordingly, the Discharger shall prepare and submit a draft workplan to the Regional Board for review and approval, prior to implementing the study, if they have opted to conduct the Study.
57. 40 CFR section 131.38(e) provides conditions under which interim effluent limits and compliance schedules may be issued. The SIP allows inclusion of interim limits in NPDES permits for CTR-based priority pollutants. The CTR provides for a five-year maximum compliance schedule, while the SIP allows for longer, TMDL-based compliance schedule. However, the USEPA has yet to approve the longer compliance schedules. Therefore, this Order includes interim limits and compliance schedules for CTR-based priority pollutants limits for a maximum of five years. This Order also includes a reopener to allow the Regional Board to grant TMDL-based compliance schedules if the USEPA approves the longer compliance schedule provisions of the SIP.

58. On January 30, 2003, the Regional Board adopted Resolution No. 2003-001, *Resolution Amending the Water Quality Control Plan for the Los Angeles Region to Incorporate Language Authorizing Compliance Schedules in NPDES Permits (Compliance Schedule Resolution)*. Resolution No. 2003-001 was approved by State Board, OAL, and USEPA on June 18, 2003, August 18, 2003, and February 10, 2004, respectively, and is now in effect. The *Compliance Schedule Resolution* allows compliance schedules in NPDES permits for effluent limits that implement new, revised or newly interpreted water quality standards, or for effluent limits that implement TMDLs for new, revised or newly interpreted water quality standards. Since the limits for the total ammonia are newly interpreted water quality standards, the Basin Plan Amendment for compliance schedules does apply to this pollutant. Total ammonia effluent limits in this Order, which the Discharger is unable to meet, are based on the new ammonia WQOs for saltwater. Therefore, interim limits and compliance dates for total ammonia nitrogen are provided in this Order.
59. In conformance with the CTR and the relevant provisions of SIP Section 2.1, the Discharger has submitted documentation regarding the efforts they have made to quantify pollutant levels in the discharge and the sources of the pollutants entering the POTW. In addition, the Discharger already has in place a source control and pollutant minimization approach through its existing pollutant minimization strategies and through the Pretreatment Program. The duration of interim requirements established in this Order was developed in coordination with Regional Board staff and the Discharger, and the proposed schedule is as short as practicable. The five-year compliance schedule is based on the maximum allowable compliance schedule. However, the Discharger anticipates it will take longer than five years to achieve the final limits.

PUBLIC NOTIFICATION AND CEQA COMPLIANCE

60. The action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code §21100, et. seq.) in accordance with California Water Code §13389.
61. The Regional Board has notified the City and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.
62. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.
63. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Clean Water Act, or amendments thereto, and is effective 50 days (May 27, 2005) from the date of its adoption because of significant public comment, in accordance with federal law, provided the Regional Administrator, USEPA has no objections.
64. Pursuant to the California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, P.O. Box 100, Sacramento CA 95812, within 30 days of adoption of this Order.

IT IS HEREBY ORDERED that the City of Los Angeles (the City), as owner and operator of the Terminal Island Treatment Plant, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations adopted thereunder, shall comply with the following:

I. DISCHARGE REQUIREMENTS

1. Discharge Prohibition

The discharge of treated municipal wastewater to the Harbor is generally prohibited by 2020 and shall be eliminated at the earliest practicable date. Until the discharge is eliminated, the following requirements apply.

2. Effluent Limitations

Pending elimination of the discharge from the Harbor, the discharger shall meet the following:

A. Wastes discharged shall be limited to treated industrial and municipal wastewater only, as proposed in the ROWD.

B. The discharge of an effluent with constituents in excess of the following limits is prohibited:

a. Conventional and nonconventional pollutants:

Constituent	Units	Discharge Limitations		
		Monthly Average ^[1]	Weekly Average ^[1]	Daily Maximum ^[2]
BOD ₅ 20°C	mg/L	15 ^[3]	30 ^[3]	40 ^[3]
	lbs/day ^[4]	3,800	7,500	10,000
Suspended solids	mg/L	15 ^[3]	30 ^[3]	40 ^[3]
	lbs/day ^[4]	3,800	7,500	10,000
Settleable solids	ml/L	0.1 ^[3]	--	0.3 ^[3]
Oil and grease	mg/L	10 ^[3]	--	15 ^[3]
	lbs/day ^[4]	2,500	--	3,800
Total residual chlorine	mg/L	--	--	0.1 ^[5]
MBAS	mg/L	0.5 ^[6, 7]	--	--
	lbs/day ^[4]	130	--	--
Summer total ammonia (May - October)	mg/L	0.71 ^[6, 8]	--	4.7 ^[6, 9]
	lbs/day ^[4]	180	--	1,200
Winter total ammonia (November - April)	mg/L	1.3 ^[6, 10]	--	8.4 ^[6, 11]
	lbs/day ^[4]	330	--	2,100
Radioactivity ^[12]				
Gross alpha	pCi/L	--	--	15
Gross beta	pCi/L	--	--	50
Combined radium 226 & 228	pCi/L	--	--	5
Tritium	pCi/L	--	--	20,000

Constituent	Units	Discharge Limitations		
		Monthly Average ^[1]	Weekly Average ^[1]	Daily Maximum ^[2]
Strontium	pCi/L	--	--	8
Uranium	pCi/L	--	--	20

Footnotes:

- [1]. Average Monthly Discharge Limitation means the highest allowable average of daily discharge over a calendar month, calculated as the sum of all daily discharges measured during that month divided by the number of days on which monitoring was performed.

Average Weekly Discharge Limitation means the highest allowable average of daily discharge over a calendar week, calculated as the sum of all daily discharges measured during that week divided by the number of days on which monitoring was performed.

- [2]. The daily maximum effluent concentration limit shall apply to flow weighted 24-hour composite samples and grab samples. It may apply to grab samples if the collection of composite samples for those constituents is not appropriate because of instability of the constituents.

- [3]. The existing permit limit is carried over.

- [4]. The mass emission rates are calculated as follows: 30 (mgd) x Concentration (mg/L) x 8.366 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

- [5]. The existing permit limit is carried over. For the determination of compliance with total residual chlorine limit, one of the following applies:
Total residual chlorine concentration excursions of up to 0.3 mg/L, at the point in treatment train immediately following dechlorination, shall not be considered violations of this requirement provided the total duration of such excursions do not exceed 15 minutes during any calendar day. Peaks in excess of 0.3 mg/L lasting less than one minute shall not be considered a violation of this requirement; or

For continuous total residual chlorine recording devices that require greater than one minute to level off after the detection of a spike: if it can be demonstrated that a stoichiometrically appropriate amount of dechlorination chemical has been added to effectively dechlorinate the effluent to 0.1 mg/L or less, then the exceedance over one minute, but not for more than five minutes, will not be considered to be a violation.

- [6]. Receiving water (background) concentration is not available. Therefore, the dilution ratios are not applicable. Once the Discharger collects monthly data of receiving water for a year, which are submitted to the Regional Board. The final effluent concentration and mass emission may be modified.

- [7]. The concentrations of MBAS in the last permit cycle are between 0.090 mg/L to 0.368 mg/L, which do not exceed the Basin Plan's MBAS WQO (0.5 mg/L). Therefore, interim limit for MBAS is unnecessary, even though the Reasonable Potential Analysis projects MBAS that may exceed the Basin Plan's MBAS WQO.
- [8]. This is the salt water total ammonia Water Quality Objective during summer, the lowest monthly average (see Table F8A) of total ammonia projected among water quality monitoring stations (HWs 20, 40-44, 50-54, and 62-64) in the receiving water, based on the Bight monitoring data collected between May and October of 2000 and 2002, according to the methodology listed in the Resolution No. 2004-022, "Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life", adopted by the Regional Board on March 4, 2004. The Water Quality Objective will ultimately serve as the effluent limitation for the discharge. This limit becomes effective after the USEPA approves the Resolution No. 2004-022. If U.S. EPA does not approve the Resolution No. 2004-022, this effluent limitation including mass will not apply.
- [9]. This is the salt water total ammonia Water Quality Objective during summer, the lowest daily maximum (see Table F8B) of total ammonia projected among water quality monitoring stations (HWs 20, 40-44, 50-54, and 62-64) in the receiving water, based on the Bight monitoring data collected between May and October of 2000 and 2002, according to the methodology listed in the Resolution No. 2004-022, "Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life", adopted by the Regional Board on March 4, 2004. The Water Quality Objective will ultimately serve as the effluent limitation for the discharge. This limit becomes effective after the USEPA approves the Resolution No. 2004-022. If U.S. EPA does not approve the Resolution No. 2004-022, this effluent limitation including mass will not apply.
- [10]. This is the salt water total ammonia Water Quality Objective during winter, resulting from the lowest monthly average (see Table F8A) of total ammonia projected among water quality monitoring stations (HWs 20, 40-44, 50-54, and 62-64) in the receiving water, based on the Bight monitoring data collected between January and April and between November and December of 2000 and 2002, according to the methodology listed in the Resolution No. 2004-022, "Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life", adopted by the Regional Board on March 4, 2004. The Water Quality Objective will ultimately serve as the effluent limitation for the discharge. This limit becomes effective after the USEPA approves the Resolution No. 2004-022. If U.S. EPA does not approve the Resolution No. 2004-022, this effluent limitation including mass will not apply.
- [11]. This is the salt water total ammonia Water Quality Objective during winter, resulting from the lowest daily maximum (see Table F8B) of total ammonia projected among water quality monitoring stations (HWs 20, 40-44, 50-54, and 62-64) in the receiving water, based on the Bight monitoring data collected

between January to April and between November and December of 2000 and 2002, according to the methodology listed in the Resolution No. 2004-022, "Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life", adopted by the Regional Board on March 4, 2004. The Water Quality Objective will ultimately serve as the effluent limitation for the discharge. This limit becomes effective after the USEPA approves the Resolution No. 2004-022. If U.S. EPA does not approve the Resolution No. 2004-022, this effluent limitation including mass will not apply.

- [12]. Effluent limits for radioactivity are based on Maximum Contaminant Levels (MCLs) specified in Title 22, Chapter 15, Article 5, Section 64443, California Code of Regulations.

b. Toxic pollutants:

CTR # ^[1]	Constituent	Units	Discharge Limitations	
			Monthly Average ^[2]	Daily Maximum
6	Copper ^[3, 4, 5]	ì g/L	2.1	5.8
		lbs/day ^[6]	0.53	1.46
7	Lead ^[3, 4, 5]	ì g/L	6.6	15
		lbs/day ^[6]	1.7	3.8
8	Mercury ^[3, 4, 5]	ì g/L	0.051	0.094
		lbs/day ^[6]	0.013	0.024
9	Nickel ^[3, 4, 7]	ì g/L ^[8]	120	250
		lbs/day ^[6]	30	63
11	Silver ^[3, 4, 5]	ì g/L	0.81	2.2
		lbs/day ^[6]	0.20	0.55
14	Cyanide ^[4, 9]	ì g/L	0.50	1.0
		lbs/day ^[6]	0.13	0.25
68	Bis(2-ethylhexyl)phthalate ^[3, 4, 7]	ì g/L ^[8]	190	560
		lbs/day ^[6]	48	140
111	Dieldrin ^[4, 9]	ì g/L	0.00014	0.00028
		lbs/day ^[6]	0.000035	0.000070

Footnotes to discharge limitations:

- [1]. This number corresponds to the compound number found in Table 1 of CTR. It is simply the order in which the 126 priority pollutants were listed 40 CFR section 131.38 (b)(1).
- [2]. The daily maximum effluent concentration limit shall apply to flow weighted 24-hour composite samples and grab samples. It may apply to grab samples if the collection of composite samples for those constituents is not appropriate because of instability of the constituents.

- [3]. Concentration expressed as total recoverable.
 - [4]. This constituent shows reasonable potential.
 - [5]. This constituent concentration in receiving water is higher than water quality criteria of this constituent. Therefore, dilution credit is not applicable for this constituent.
 - [6]. The mass emission rates are calculated as follows: $30 \text{ (mgd)} \times \text{Concentration } (\mu\text{g/L}) \times 0.008366 \text{ (conversion factor)} = \text{lbs/day}$. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.
 - [7]. This constituent concentration in receiving water is lower than water quality criteria of this constituent. Therefore, dilution credit is applicable for this constituent.
 - [8]. The effluent concentration is based on a dilution ratio of 61.
 - [9]. Minimal detection limit used for analyzing this constituent in receiving water is higher than water quality criteria of this constituent. Dilution credit is not applicable for this constituent, even though the all results showed non-detected. The Discharger shall collect monthly receiving water data for one year. Once the data are available, the permit will be reopened and the dilution ratio for these constituents will be granted, if the City demonstrates that the concentrations of these constituents in the receiving water are less than the relevant WQOs.
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- C. The pH of wastes discharged shall at all times be within the range of 6.5 to 8.5.
- D. The temperature of wastes discharged shall not exceed 100°F.
- E. Pursuant to 40 CFR sections 133.102(a)(3) and 133.102(b)(3), the 30-day average percent removal by weight for BOD and total suspended solids shall not be less than 85 percent. Percent removal is defined as a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent pollutant concentrations to the facility and the 30-day average values of the effluent pollutant concentrations.
- F. For the protection of the water contact recreation beneficial use, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the wastewater does not exceed: (a) a daily average of 2 Nephelometric turbidity units (NTUs); and (b) 5 NTUs more than 5 percent of the time (72 minutes) during any 24 hour period.
- G. Interim Effluent Limitations
 - a. The City, as operator of the TITP, shall comply immediately with the following interim effluent limits until March 10, 2010. Thereafter, the

Discharger shall comply with the limitations specified in Sections I.2.B.a. and I.2.B.b. of this Order:

Constituent	Units	Monthly Average	Daily Maximum
Total Ammonia ^[1]	mg/L	7.4	20
Copper ^[2]	µg/L	74	---
Lead ^[2]	µg/L	8.6	---
Mercury ^[2]	µg/L	0.30	---
Silver ^[2]	µg/L	3.8	---
Cyanide ^[2]	µg/L	11	---
Dieldrin ^[2]	µg/L	0.004	---

Footnote:

[1]. Interim effluent limit was derived statistically at 95 percentile for monthly average and at the 99 percentile for the daily maximum interim limits. Effluent performance data, provided by the City, from July 1997 through June 2004 and the *Minitab* program, which is based on lognormal base e, were used to calculate the interim limits.

[2]. The maximum effluent concentration is the interim limit.

- b. The Discharger shall submit reports to describe the progress of studies and/or actions undertaken to reduce these compounds in the effluent, and to achieve compliance with the limits in this Order by the above mentioned deadline in accordance with Monitoring and Reporting Program (MRP) CI No. 2171.

H. Acute Toxicity Limitation:

- a. The acute toxicity of the effluent shall be expressed and reported as percent survival.
- b. The acute toxicity of the effluent shall be such that: (i) the average survival in the undiluted effluent for any three (3) consecutive 96-hour static, static-renewal*, or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70% survival.

* Static-renewal bioassay tests may be used, as allowed by the most current USEPA test method, for measuring acute toxicity.

- c. If either of the above requirements (I.2.H.b.i or I.2.H.b.ii) is not met, the Discharger shall conduct six additional tests over a 12-week period. The Discharger shall ensure that results of a failing acute toxicity test is received by the Regional Board within 24 hours of completion of the test

and the additional tests shall begin within 5 business days of receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the Discharger may resume regular testing. However, if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the limitation.

- d. If the initial test and any of the additional six acute toxicity bioassay tests results are less than 70% survival, the Discharger shall immediately implement Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.
- e. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program (MRP) No. 2171.

I. Chronic Toxicity Limitation and Requirements:

- a. The chronic toxicity of the effluent shall be expressed and reported in toxic units, where:

$$TU_c = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

- b. There shall be no chronic toxicity in the effluent discharge.
- c. Red abalone, *Haliotis rufescens*, giant kelp, *Macrocystis pyrifera*, and topsmelt, *Atherinops affinis*, can be chosen for chronic toxicity screening tests. During the chronic toxicity screening tests, they are all subject to a maximum effluent concentration of 60%*. If topsmelt is selected as the most sensitive species, then the chronic toxicity tests shall be conducted at 100% effluent.

*. The freshwater whole effluent sample will be diluted by **hypersaline brine** (prepared from natural seawater, in accordance with the test methods manual) prior to conducting the marine chronic toxicity test, a hypersaline brine control shall also be used.

There are two possible screening test results:

- i. Either red abalone or giant kelp is selected as the most sensitive species: If the chronic toxicity of the **60%*** effluent exceeds the

monthly median of 1.67 TU_c, the Discharger shall immediately implement accelerated chronic toxicity testing according to MRP No. 2171, Section VI.4.B.d. If any three out of the initial test and the six accelerated tests results exceed 1.67 TU_c (60% effluent), the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan, as specified in the following section of this Order (Section I.2.J.).

- ii Topsmelt is selected as the most sensitive species: The 100% effluent shall be used in the chronic toxicity test procedures. Then, the chronic toxicity shall not exceed the monthly median of 1.0 TU_c trigger in the 100% effluent tests. If the chronic toxicity of the 100% effluent exceeds the monthly median of 1.0 TU_c, the Discharger shall immediately implement accelerated chronic toxicity testing according to MRP No. 2171, Section VI.4.B.d. If any three out of the initial test and the six accelerated tests results exceed 1.0 TU_c, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan, as specified in the following section of this Order (Section I.2.J.).

In lieu of conducting the standard acute toxicity testing with topsmelt, the Discharger may elect to report the results or endpoint from the first 48 hours of the chronic toxicity test as the results of the acute toxicity test, but only if the Discharger uses USEPA's August 1993 protocol (EPA/600/4-90/027F) to conduct the chronic toxicity test.

- d. The Discharger shall conduct chronic toxicity monitoring as specified in MRP No. 2171.
- e. This permit may be reopened to include effluent limitations for pollutants found to be causing chronic toxicity and to include numeric chronic toxicity effluent limitations based on direction from the State Board or failure of the Discharger to comply fully with the TRE/TIE requirements.

J. Preparation of an Initial Investigation TRE Workplan

The Discharger shall submit a detailed copy of the Discharger's initial investigation TRE workplan to the Executive Officer of the Regional Board for approval within 90 days of the effective date of this permit. The Discharger shall use EPA/833B-99/002 (municipal) as guidance, or most current version. At a minimum, the TRE Work Plan must contain the provisions in Attachment C. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

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

- b. A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility; and,
- c. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor). See MRP Section VI.4.D.b. for guidance manuals.

3. **Receiving Water Limitations**

A. Bacterial Characteristics

a. Water Contact Standards

In marine water designated for water contact recreation (REC-1). The waste discharged shall not cause the following bacterial standards to be exceeded in the receiving water outside the initial dilution zone.

i. Geometric Mean Limits

- (a). Total coliform density shall not exceed 1,000/100 ml.
- (b). Fecal coliform density shall not exceed 200/100 ml.
- (c). Enterococcus density shall not exceed 35/100 ml.

ii. Singles Sample Limits

- (a). Total coliform density shall not exceed 10,000/100 ml.
- (b). Fecal coliform density shall not exceed 400/100 ml.
- (c). Enterococcus density shall not exceed 104/100 ml.
- (d). Total coliform density shall not exceed 1,000/100 ml, if the ration of fecal-total coliform exceeds 0.1.

The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

If any of the singles sample limits are exceeded, the Regional Board may require repeat sampling on a daily basis until the sample falls below the single sample limit in order to determine the persistence of the exceedance.

When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period will be used to calculate the geometric mean.

During a wet-weather event, stormwater runoff will impact inshore and offshore stations. The day of rain (0.1 inch and greater) plus three following days worth of bacteriology data should be excluded from Single Sample and Geomean limits.

b. Shellfish Harvesting Standards

At all areas where shellfish may be harvested for human consumption, as determined by the Regional Board, the waste discharged shall not cause the following bacteriological standards to be exceeded:

The median total coliform density for any 6-month period shall not exceed 70 per 100 ml, and not more than 10 percent of the samples during for any 6-month period shall exceed 230 per 100 ml.

- c. If a shore station consistently exceeds a total or fecal coliform objective, the Discharger shall conduct a sanitary survey to determine if the discharge is the source of the contamination. The geometric mean shall be a moving average based on no less than five samples, spaced evenly over the time interval. When a sanitary survey identifies a controllable source of indicator organisms associated with the discharge of sewage, the Discharger shall take action to control the source.

B. Physical Characteristics

The waste discharged shall not:

- a. Cause floating particulates and oil and grease to be visible;
- b. Cause aesthetically undesirable discoloration of the ocean surface;
- c. Significantly reduce the transmittance of natural light at any point outside the initial dilution zone; and,
- d. Change the rate of deposition of inert solids and the characteristics of inert solids in ocean sediments such that benthic communities are degraded.

C. Chemical Characteristics

The waste discharged shall not:

- a. Cause the dissolved oxygen concentration at any time to be depressed more than 10 percent from that which occurs naturally;
- b. Change the pH of the receiving waters at any time more than 0.2 units from that which occurs naturally;

- c. Cause the dissolved sulfide concentration of waters in and near sediments to be significantly increased above that present under natural conditions;
- d. Contain individual pesticides or combinations of pesticides in concentrations that adversely affect beneficial uses;
- e. Cause the concentration of organic materials in marine sediments to be increased to levels that would degrade marine life; and,
- f. Contain nutrients at levels that will cause objectionable aquatic growths or degrade indigenous biota.

D. Biological Characteristics

The waste discharged shall not:

- a. Degrade marine communities, including vertebrate, invertebrate, and plant species;
- b. Alter the natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption; and,
- c. Cause the concentration of organic materials in fish, shellfish or other marine resources used for human consumption to bioaccumulate to levels that are harmful to human health.

E. Radioactivity

Discharge of radioactive waste shall not degrade marine life.

F. Acute Toxicity Characteristics

- a. There shall be no acute toxicity in ambient waters as a result of wastes discharged.
- b. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.
- c. The acute toxicity of the receiving water, at the station(s) located near the Outfall, which are HW23 and HW33, shall be such that: (i) the average survival in the undiluted receiving water for any three (3) consecutive 96-hour static, static-renewal*, or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70% survival.

* Static-renewal bioassay tests may be used, as allowed by the most current USEPA test method, for measuring acute toxicity.

G. Chronic Toxicity Characteristics

- a. There shall be no chronic toxicity in ambient waters as a result of wastes discharged.
- b. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.
- c. If the chronic toxicity in the receiving water at the monitoring station(s) near the edge of the chronic mixing zone boundary, which are HW24 and HW43, exceeds a monthly median of 1.0 TU_c in a critical life stage test and the toxicity cannot be attributed to ambient toxicity, as assessed by the Discharger, then the Discharger shall immediately implement an accelerated chronic toxicity testing according to Monitoring and Reporting Program CI 2171, Section VI.4.B.d. If two of the six tests exceed 1.0 TU_c, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan.

II. SLUDGE REQUIREMENTS

1. The Discharger shall comply with the requirements of 40 CFR, Part 503, in general, and in particular the requirements in Attachment B of this Order, [*Biosolids Use and Disposal Requirements*]. These requirements are enforceable by the USEPA.
2. The Discharger shall comply, if applicable, with the requirements in State issued statewide general Waste Discharge Requirements (WDRs) Order No. 2004-0012-DWQ, titled, "General waste Discharge Requirements for the Discharge of Biosolids to Land for use as a soil Amendment in Agricultural, Silvicultural and Horticultural and Land Reclamation Activities," adopted in July 2004.
3. The Discharger shall comply, if applicable, with WDRs issued by other Regional Boards to which jurisdiction the TITP's biosolids are transported and applied.
4. The Discharger shall furnish this Regional Board with a copy of any report submitted to USEPA, State Board or other Regional Board with respect to municipal sludge or biosolids.

III. PRETREATMENT REQUIREMENTS

1. This Order includes the Discharger's approved Pretreatment Program as an enforceable condition. The Discharger is required to implement and enforce the Pretreatment Program in its entire service area, including the contributing jurisdictions.
2. The Discharger shall evaluate whether its pretreatment local limits are adequate to meet the requirements of this Order. Within 120 days of the effective date of the Order for TITP, the Discharger shall submit the result of the evaluation, and if an update is necessary; then, the Discharger shall also submit its plan and schedule for updating the local limits, for approval of the Executive Officer. Lack of adequate

local limits shall not be a defense against liability for violations of effluent limitations and overflow prevention requirements contained in this Order.

3. Any substantial modifications to the approved Pretreatment Program, as defined in 40 CFR 403.18(b), shall be submitted in writing to the Regional Board and shall not become effective until Regional Board's approval is obtained.
4. The Discharger shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the Federal Clean Water Act with timely, appropriate, and effective enforcement actions. The Discharger shall require industrial users to comply with Federal Categorical Standards and shall initiate enforcement actions against those users who do not comply with the standards. The Discharger shall require industrial users subject to the Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.
5. The Discharger shall perform the pretreatment functions as required in Federal Regulations 40 CFR, Part 403 including, but not limited to:
 - A. Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);
 - B. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;
 - C. Implement the programmatic functions as provided in 40 CFR 403.8(f)(2); and,
 - D. Provide the requisite funding and personnel to implement the Pretreatment Program as provided in 40 CFR 403.8(f)(3).
6. The Discharger shall submit semiannual and annual reports to the Regional Board, describing the Discharger's pretreatment activities over the period. The annual and semiannual reports (and quarterly reports, if required) shall contain, but not be limited to, the information required in the attached *Pretreatment Reporting Requirements* (Attachment P), or an approved revised version thereof. The semiannual Report covers the periods from January 1 to June 30 and is due by September 1 of each year. A copy of the newspaper notice required under 40 CFR §403.8(f)(2)(vii) should be included in the Semiannual Report. A full scan of the priority pollutants for the influent and effluent should be conducted at least annually in July. If the Discharger is not in compliance with any conditions or requirements of this Order, the Discharger shall include the reasons for noncompliance and shall state how and when the Discharger will comply with such conditions and requirements.
7. The Discharger shall be responsible and liable for the performance of all control authority pretreatment requirements contained in 40 CFR, Part 403, including subsequent regulatory revisions thereof. Where Part 403 or subsequent revision places mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall complete the required actions within six months from the effective date of this Order or the effective date of Part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Discharger shall be subject to enforcement actions, penalties, fines,

and other remedies by the Regional Board, USEPA, or other appropriate parties, as provided in the Federal Clean Water Act. The Regional Board or USEPA may initiate enforcement action against an industrial user for noncompliance with acceptable standards and requirements as provided in the Federal Clean Water Act and/or the California Water Code.

IV. REQUIREMENTS AND PROVISIONS

1. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
2. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and all federal regulations established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, 316, 403 and 405 of the Federal Clean Water Act and amendments thereto.
3. This Order includes the attached *Standard Provisions and General Monitoring and Reporting Requirements (Standard Provisions)* (Attachment N). If there is any conflict between provisions stated herein and the Standard Provisions, those provisions stated herein prevail. Conditions pertaining to bypass are contained in Standard Provisions sections B.13, B.20, and B.23, G.1. The bypass or overflow of untreated or partially treated wastewater to waters of the State is prohibited, except as allowed under conditions stated in 40 CFR section 122.41(m)(2), (m)(4) and (n). Consistent with those provisions, during periods of elevated, wet-weather flows, the operational diversion of secondarily treated wastewater around the tertiary filters is allowable provided that the combined discharge of fully treated and partially treated wastewater complies with the effluent and receiving water limitations in this Order.
4. This Order includes the attached Monitoring and Reporting Program (Attachment T). If there is any conflict between provisions stated in the Monitoring and Reporting Program and the "Standard Provisions" (Attachment N), those provisions stated in the Monitoring and Reporting Program prevail.
5. Compliance Determination
 - A. Compliance with single constituent effluent limitation – If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement III. A. of MRP), then the Discharger is out of compliance.
 - B. Compliance with monthly average limitations - In determining compliance with monthly average limitations, the following provisions shall apply to all constituents:
 - a. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the monthly average limit for that constituent, the Discharger has demonstrated compliance with the monthly average limit for that month.

b. If the analytical result of any single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the monthly average limit for any constituent, the Discharger shall collect up to four additional weekly samples. All analytical results shall be reported in the monitoring report for that month, or the subsequent month. The concentration of pollutant (a numerical average or a median) estimated from the following Section IV.5.C. will be used for compliance determination.

C. When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirements III.1. of MRP), the numerical average of the analytical results of these samples will be used for compliance determination.

When one or more sample results are reported as “Not-Detected (ND)” or “Detected, but Not Quantified (DNQ)” (see Reporting Requirements III.4. of MRP), the median value of these samples collected during the month will be used for compliance determination. If, in an even number of samples, one or both of the middle values is ND or DNQ, the median will be the lower of the two middle values.

D. Compliance with effluent limitations expressed as a sum of several constituents – If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero.

E. Compliance with effluent limitations expressed as a median – in determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and

a. If the number of measurements (n) is odd, then the median will be calculated as $= X_{(n+1)/2}$, or

b. If the number of measurements (n) is even, then the median will be calculated as $= [X_{n/2} + X_{(n/2)+1}]/2$, i.e. the midpoint between the $n/2$ and $n/2+1$ data points.

6. In calculating mass emission rates from the monthly average concentrations, for compliance purpose, consider constituents reported as ND or DNQ to have concentrations equal to zero for the calculation of the monthly average concentration.

7. Pollutant Minimization Program (PMP)

A. The goal of the PMP is to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures, in order to maintain the effluent concentration at or below the effluent limitation.

Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses

are being impacted. The completion of a Pollution Prevention Plan, required in accordance with California Water Code Section 13263.3 (d) shall fulfill the PMP requirements in this section.

- B. The Discharger shall develop a PMP if all of the following conditions are true, and shall submit the PMP to the Regional Board within 120 days of determining the conditions are true:
 - a. The calculated effluent limitation is less than the reported minimum level;
 - b. The concentration of the pollutant is reported as “Detected, but Not Quantified”, DNQ;
 - c. There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.
- C. The Discharger shall also develop a PMP if all of the following conditions are true, and shall submit the PMP to the Regional Board within 120 days of determining the conditions are true:
 - a. The calculated effluent limitation is less than the method detection limit;
 - b. The concentration of the pollutant is reported as “Not-Detected”, ND;
 - c. There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.
- D. The Discharger shall consider the following in determining whether the pollutant is present in the effluent at levels above the calculated effluent limitation:
 - a. health advisories for fish consumption;
 - b. presence of whole effluent toxicity;
 - c. results of benthic or aquatic organism tissue sampling;
 - d. sample results from analytical methods more sensitive than methods included in the permit;
 - e. the concentration of the pollutant is reported as DNQ and the effluent limitation is less than the method detection limit.
- E. Elements of a PMP. The PMP shall include actions and submittals acceptable to the Regional Board including, but not limited to, the following:

- a. An annual review and semi-annual monitoring of potential sources of the reportable pollutant, which may include fish tissue monitoring and other bio-uptake sampling;
 - b. Quarterly monitoring for the reportable pollutant in the influent to the wastewater treatment system;
 - c. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant in the effluent at or below the calculated effluent limitation;
 - d. Appropriate cost-effective control measures for the pollutant, consistent with the control strategy; and,
 - e. An annual status report that shall be sent to the Regional Board including:
 - i. All PMP monitoring results for the previous year;
 - ii. A list of potential sources of the reportable pollutant;
 - iii. A summary of all action taken in accordance with control strategy; and,
 - iv. A description of actions to be taken in the following year.
8. The Discharger shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately treated sewage does not occur.
9. The Discharger shall protect the facility from inundation for a 24-hour-duration, 100-year return storm.
10. The Discharger may plan to conduct studies to obtain data in support of developing site-specific objectives for mercury and dieldrin for the protection of human health from the consumption of fish and shellfish taken from the receiving waters; and, for copper, lead, silver, and cyanide for protection of aquatic life. The Discharger shall submit to Regional Board staff a detailed work plan for these studies within one year of adoption of this permit, if the Discharger chooses to conduct such studies. The work plan shall provide a schedule consistent with Effluent Limitation I.2.G.a for development and adoption of site-specific objectives for these constituents.
11. The Discharger shall submit a summary report to this Regional Board by June 30, 2006, on the management and maintenance of the Discharger collection system. This report shall describe plans to upgrade the collection system, include a schedule and timeline of the major milestones of the upgrade, include maps of the Discharger collection system, and include both current and future programs in relation to

maintenance of the collection system. The Discharger may submit other reports mandated by other regulatory requirements to comply and satisfy this requirement.

V. REOPENERS AND MODIFICATIONS

1. This Order may be reopened and modified, in accordance with SIP section 2.2.2.A to incorporate the results of revised reasonable potential analyses to be conducted upon receipt of additional data.
2. This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122 and 124 to include requirements for the implementation of the watershed protection management approach.
3. The Board may modify, or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.
4. This Order may also be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR Parts 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
5. This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122 to 124, to include new MLs.
6. This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of a water quality objective, or the adoption of a TMDL for the Dominguez Channel Watershed.
7. This Order may be reopened and modified to revise the acute and chronic toxicity effluent limitation, to the extent necessary, to be consistent with State Board precedential decisions, new policies, new laws, or new regulations.
8. This Order may be reopened and modified if there is a legal opinion by staff council that final limits removed pursuant to a reasonable potential analysis may nonetheless be restored or retained. Such reopener shall be brought to the Regional Board at the earliest opportunity thereafter.
9. This Order can be reopened, if the SIP is revised to include longer compliance schedules in NPDES permits, and if EPA approves such a revision.

VI. EXPIRATION DATE

This Order expires on March 10, 2010. The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

VII. RESCISSION

Order No. 93-014, adopted by this Regional Board on March 1, 1993, is hereby rescinded, except for enforcement purposes.

I, Jonathan S. Bishop, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on April 7, 2005.

Jonathan S. Bishop
Executive Officer

/DTSAl/

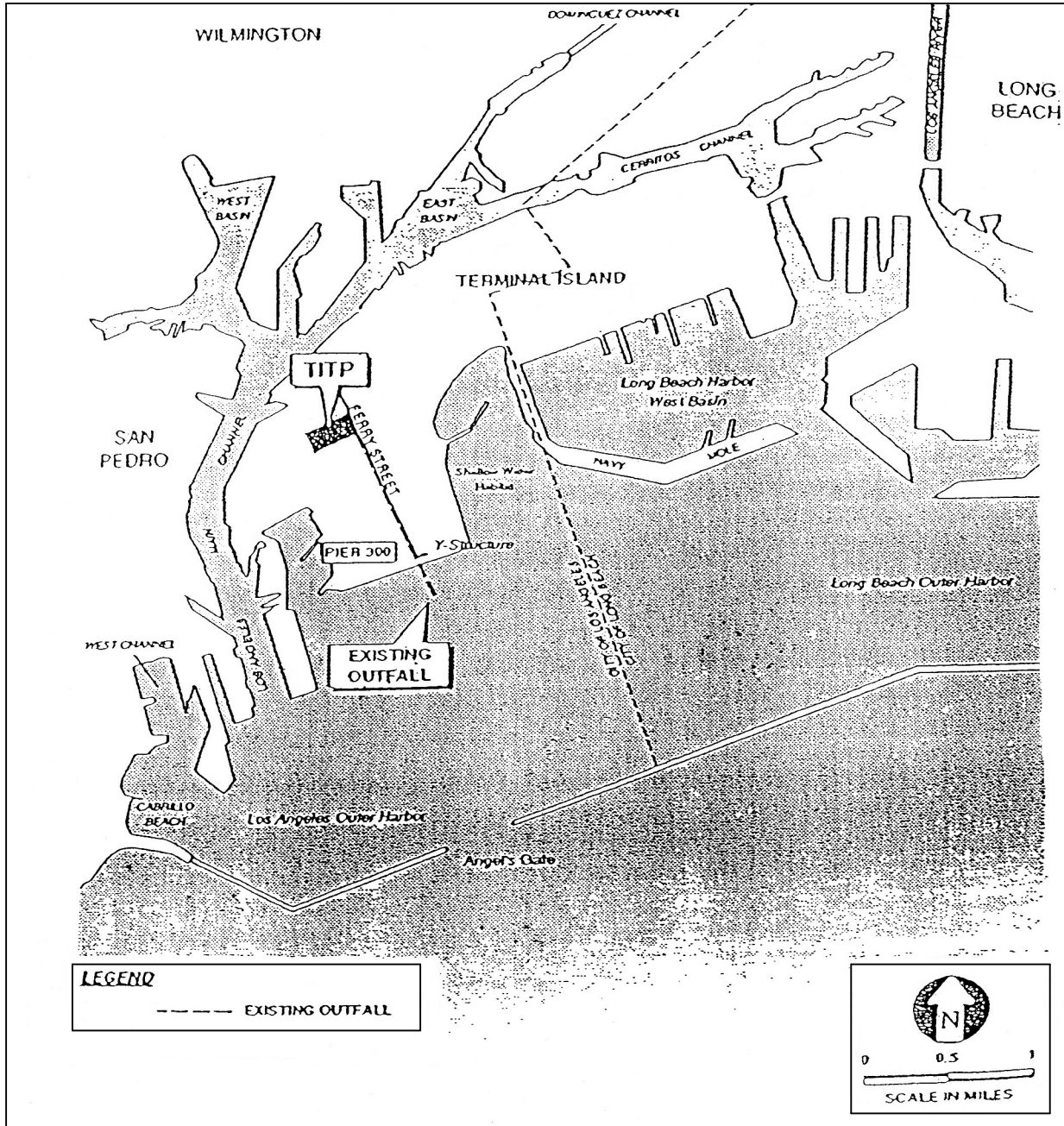


Figure P1 – The Vicinity Map for the Terminal Island Treatment Plant