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

ORDER NO. 01-074

WASTE DISCHARGE REQUIREMENTS for TOSCO REFINING COMPANY (Los Angeles Refinery, Carson Plant) (NPDES NO. CA0063185)

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

1. Tosco Refining Company (hereinafter Tosco or Discharger) discharges waste from its Los Angeles Refinery, Carson Plant, under waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) permit contained in Order No. 94-001 (NPDES Permit No. CA0063185) issued to Unocal Corporation on January 31, 1994.

2. Tosco purchased the Los Angeles Refinery, a fully integrated petroleum refinery (SIC Code 2911), consisting of the Wilmington Plant and the Carson Plant, from Unocal Corporation. The transfer of ownership was effective on April 1, 1997.

3. Tosco has filed a report of waste discharge and has applied for renewal of its waste discharge requirements and NPDES permit for discharge of wastes to surface waters.

Description of Facility

4. The Carson Plant is located at 1520 East Sepulveda Boulevard, Carson, California. Figure 1 shows the map of the facility. The plant receives a daily average crude oil throughput of 131,000 barrels per day. Crude oil is cracked and piped to the Wilmington Plant for continued processing to produce gasoline, diesel fuel, and jet fuel. Sulfur and petroleum cokes are produced as co-products. The refinery processes at the Carson Plant include crude cracking, flashing, coking, hydrotreating, and sulfur recovery.

5. The Los Angeles Refinery, Carson Plant, is categorized as a cracking refinery as defined in 40 CFR 419.20.

6. The Regional Board and the United States Environmental Protection Agency (USEPA) have classified the Carson Plant as a major discharger.

May 24, 2001

Description of the Waste Discharge and Outfall

7. The Carson Plant discharges up to 11.23 million gallons per day (mgd) (maximum 30-day average 2.88 mgd) of treated wastewater to Dominguez Channel, just west of Alameda Street (**Discharge Serial No. 001**- Latitude 33°48'55", Longitude 118°13'55"), within the estuary. The wastewater consists of approximately 0.288 mgd of dry weather flow (cooling tower blowdown, boiler blowdown, boiler feed treatment rinse water, boiler condensate, and reverse osmosis reject water) and 10.944 mgd of storm water from tank farms, parking lots, roadways, and other non-process areas. The wastes are treated with pH neutralization and dissolved air floatation prior to discharge. Figure 2 shows the schematic diagram of the wastewater flow.

The Report of Waste Discharge dated June 18, 1998, describes the effluent characteristics as follows:

		Concentration	
		Daily	Monthly
Constituent	Units	Maximum	Average
Flow	mgd	11.23	2.88
Chemical oxygen demand (COD)	mg/L	246	27
Biochemical oxygen demand (BOD)	mg/L	10	10
Total organic carbon (TOC)	mg/L	67	---
Total suspended solids (TSS)	mg/L	48	11
Ammonia (as N)	mg/L	ND	---
Temperature - Winter	°C	20.5	18.3
Summer	°C	25	23.8
Oil and grease	mg/L	6	---
pH	Standard Unit	6.5-8.0	---
Priority pollutants	µg/L	ND	---

Note: ND - not detected

8. Process wastewaters, sanitary wastes, and storm water runoff from process areas are discharged to the County Sanitation Districts of Los Angeles County sanitary sewer system. Treated water from the groundwater cleanup operation for removal of petroleum products underlying the facility is also discharged to the sanitary sewer system.

Storm Water Management

9. Tosco currently segregates contaminated storm water runoff from process areas, from uncontaminated runoff from tank farms, parking lots, roadways, and other non-process areas. The contaminated storm water runoff is combined with process wastewater, treated, and then discharged into the sanitary sewer system. Storm water from non-process areas, tank farms, parking lots, and roadways is collected in an 8.4-million gallon retention basin for observation and treatment before discharge to Dominguez

Channel. Since the issuance of the existing permit, there were 20 storm water discharge events, the largest of which occurred in 1995 with a flow of 15.5 mgd. Discharges to Dominguez Channel occurred only when the capacity of the storm water retention basin was exceeded.

10. Tosco has implemented a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the general NPDES permit for storm water discharges associated with industrial activity [State Water Resources Control Board (State Board) Order No. 97-03-DWQ, NPDES Permit No. CAS000001]. The storm water requirements contained in the general storm water permit are incorporated into this Order.

Applicable Plans, Policies, and Regulations

11. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains beneficial uses and water quality objectives for the Dominguez Channel Estuary.

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

12. The State Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. The Thermal Plan contains temperature objectives for the Los Angeles Harbor of which Dominguez Channel is a tributary.

13. In May 1974, the State Board adopted a *Water Quality Control Policy for the Enclosed Bays and Estuaries of California* (Policy). The Policy contains narrative and numerical water quality objectives that were designed to prevent water quality degradation and protect beneficial uses in enclosed bays and estuaries.

    The Policy also lists principles of management that include the State Board's goal to phase out all discharges (excluding cooling waters), particularly industrial process water, to enclosed bays and estuaries as soon as practicable. The wastes discharged to Dominguez Channel described above, are not considered industrial process wastewater for purposes of the Policy.

14. Under 40 CFR 122.44, *Establishing Limitations, Standards, and other Permit Conditions*, NPDES permits should include all pollutant limitations including conventional, non-conventional, and toxic pollutants if the Discharger uses or manufactures these pollutants as intermediate or final products or byproducts. Where numeric effluent limitations have not been established in the Basin Plan, 40 CFR Part 122.44 specifies

that water quality-based effluent limitations (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.

15. Effluent limitation guidelines requiring the application of best practicable control technology currently available (BPT), best conventional pollutant control technology (BCT), and best available technology economically achievable (BAT), were promulgated by the USEPA for some pollutants in this discharge. Effluent limitations for pollutants not subject to the USEPA effluent limitation guidelines are based on one of the following: best professional judgment (BPJ) of BPT, BCT or BAT; current plant performance; or water quality-based effluent limitations (WQBELs). The WQBELs are based on the Basin Plan, other State plans and policies, or USEPA water quality criteria taken from the California Toxics Rule (CTR). These requirements, as they are met, will protect and maintain beneficial uses of the receiving water.

16. On May 18, 2000, the USEPA promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR part 131.38]. On March 2, 2000, State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP*).* The SIP was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through National Toxics Rule (NTR) and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP was effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR*.*

    The CTR and SIP require the dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring WQBELs and to calculate the effluent limitations. The CTR criteria for saltwater or human health for consumption of organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of the Dominguez Channel estuary.

17. Under 40 CFR 131.38(e)(6), the CTR authorizes the Regional Board to grant a compliance schedule for WQBELs based on CTR criteria for up to five years from the date of permit issuance, reissuance, or modification. The SIP provides a compliance schedule for WQBELs (up to five years) and for WQBELs based upon Total Maximum Daily Loads (TMDLs) and Waste Load Allocations (WLAs) development (up to 15 years). However, the USEPA has not yet approved the longer of the two compliance schedules nor depromulgated the five year maximum in the CTR to allow for the 15 years in the SIP. Therefore, the more stringent provision, allowing a compliance schedule of five years, is the maximum duration authorized.

18. The Regional Board finds that there is not sufficient information at this time, to justify dilution credits, mixing zones, or TMDL-based compliance schedules. This Order provides reopeners to address this issue.

19. Effluent limitations and toxic effluent standards established pursuant to sections 301, 304, 306, and 307 of the federal Water Pollution Control Act, and amendments thereto, are applicable to the discharges herein.

20. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) in accordance with the California Water Code, Section 13389.

Watershed Management Approach and Total Maximum Daily Loads

21. The Regional Board has implemented the Watershed Management Approach to address water quality issues in the region. Watershed management may include diverse issues as defined by stakeholders to identify comprehensive solutions to protect, enhance, and restore water quality and beneficial uses. To achieve this goal, the watershed management approach integrates the Regional Board's many diverse programs, particularly Total Maximum Daily Loads (TMDLs), to better assess cumulative

    impacts of pollutants from all point and non-point sources to more efficiently develop watershed-specific solutions that balance the environmental and economic impacts within a watershed. The TMDLs will establish waste load allocations (WLAs) and load allocations (LAs) for point and non-point sources, and will result in achieving water quality standards for the waterbody.

22. The Dominguez Channel begins at the border of El Segundo and Los Angeles Airport and flows through portions of Hawthorne, Torrance, Gardena, Carson, and Wilmington to the East Basin of the Los Angeles Harbor. The channel is concrete-lined above the estuary (Vermont Avenue). Dominguez Channel receives discharges from highly developed and industrialized areas.

23. The Dominguez Channel estuary is classified as impaired in the 1998 State Board's California 303 (d) List. The pollutants of concern, detected in the channel water and sediment, and in the fish tissue, are listed below:

    - In sediment: chromium, lead, zinc, DDT, and PAHs.
    - In fish tissue: lead, aldrin, benthic community effects, Chem A (refers to the sum of aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, HCH (including lindane), endosulfan, and toxaphene), chlordane, DDT, dieldrin, and PCBs.
    - In water column: copper, lead, ammonia, and coliform.

    Known and/or suspected sources of pollution include historical deposits of DDT and PCBs in sediment, discharges and/or spills from refineries and industrial facilities, leaching of contaminated ground water, and urban runoff.

    The TMDL development for the Dominguez Channel watershed is scheduled for fiscal year 2003-2004 beginning with coliform. The TMDL dvelopment for the remaining 303(d)-listed pollutants are not scheduled within the life time of this permit. The TMDL will include WLAs for the 303 (d)-listed pollutants. When each TMDL is complete, the Board will

adopt a WQBEL consistent with the corresponding WLA. If authorized, a time schedule may be included in a revised permit to require compliance with the final WQBEL.

24. To prevent further degradation of the water quality of Dominguez Channel and to protect its beneficial uses, mixing zones and dilution credits are not allowed in this Order. This determination is based on:

- The discharge may contain the 303(d)-listed pollutants that exceed water column criteria. Since the receiving water is impaired, a dilution factor is not appropriate and the final WQBEL should be a numeric objective/criterion applied end-of-pipe.
- The discharge may contain the 303(d)-listed pollutants that are bioaccumulative. These pollutants, when exceeding water criteria within the mixing zone, can potentially result in tissue contamination of organisms directly or indirectly through contamination of bed sediments with subsequent incorporation into the food chain.
- Dilution is not considered in a reasonable potential analysis (RPA) under the SIP.
- According to the SIP, sufficient effluent and receiving water data are needed as specified in the attached Monitoring and Reporting Program in order to further evaluate mixing zones and dilution credits.

Reasonable Potential Analysis

25. 40 CFR 122.44(d)(1)(i) and (ii) require that each pollutant be analyzed with respect to its reasonable potential when determining whether a discharge (1) causes, (2) has the reasonable potential to cause, or (3) contributes to the exceedance of a receiving water quality objective/criterion. This is done by conducting a RPA for each pollutant. In performing the RPA, the permitting authority uses procedures that account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, and the sensitivity of the test species to toxicity testing (when evaluating whole effluent toxicity). Because of effluent variability, there is always some degree of uncertainty in determining an effluent's impact on the receiving water. The SIP addresses this issue by suggesting the use of a statistical approach.

26. Section 1.3 of the SIP requires that a limit be imposed for a toxic pollutant if (1) the maximum effluent concentration (MEC) was greater than the most stringent CTR criteria, (2) the background concentration was greater than the CTR criteria, or (3) other available information. Section 1.4 of the SIP describes step-by-step procedures to calculate the WQBELs.

27. Monitoring data from January 1994 to April 1999 and CTR water quality criteria were used to conduct RPAs for the priority pollutants for which effluent data were sufficient. Since site-specific translators are not available, the CTR water quality criteria for metals were adjusted by the USEPA standard conversion factors in the CTR and used to conduct RPAs. Based on the RPA results, the following pollutants have a reasonable

potential: copper, lead, mercury, nickel, silver, zinc, cyanide, aldrin, chlordane, dieldrin, 4,4'-DDT, 4,4'-DDE, 4,4'-DDD, alpha-endosulfan, beta-endosulfan, heptachlor, endrin, heptachlor epoxide, alpha-BHC, beta-BHC, toxaphene, total PCBs, benzidine, hexachlorobenzene, 3,3'-dichlorobenzidine, 1,2-diphenylhydrazine, bis(2-ethylhexyl)phthalate, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k) fluoranthene, chrysene, 1,2,5,6-dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene. Pollutants that lacked sufficient data to do RPAs are subject to interim monitoring requirements.

28. RPA indicates a reasonable potential for some 303(d)-listed pollutants that were not detected in the effluent. Effluent limitations are not specified for these pollutants; however, monitoring is required for future evaluation. These chemicals include aldrin, chlordane, dieldrin, 4,4'-DDT, 4,4'-DDE, 4,4'-DDD, alpha-endosulfan, beta-endosulfan, heptachlor, endrin, heptachlor epoxide, alpha-BHC, beta-BHC, toxaphene, total PCBs, benzidine, 3,3'-dichlorobenzidine, 1,2-diphenylhydrazine, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k) fluoranthene, 1,2,5,6-dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene.

29. Until the TMDLs and the corresponding WQBELs are adopted, State and Federal antibacksliding and antidegradation policies require that Regional Board actions ensure that the waterbody will not be further degraded. The antibacksliding provisions are specified in Sections 303(d)(4) and 402(o) of the Clean Water Act (CWA) and in 40 CFR Part 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed. Section 402(o)(2) outlines six exceptions where effluent limitations may be relaxed. The antidegradation provisions are contained in the Statement of Policy with Respect to Maintaining High Quality Water in California (State Board Resolution No. 68-16) on October 28, 1968, and in the federal Antidegradation Policy (40 CFR 131.12) developed under the CWA. Therefore, water quality objectives/criteria specified in the Basin Plan, the CTR, or the effluent limits from the existing permit were used to set the limitations for pollutants that are believed to be present in the effluent and have reasonable potential. Other pollutants may only be monitored to gather data to be used in RPAs for future permit renewals/updates.

30. For 303(d) listed pollutants, the Regional Board plans to develop and adopt TMDLs which will specify WLAs for point sources and LAs for non-point sources, as appropriate. Following the adoption of TMDLs by the Regional Board, NPDES permits will be issued with effluent limits for water quality based on applicable WLAs. In the absence of a TMDL, effluent limits for 303(d)-listed pollutants will be addressed in the following manner:

    a. If the impairment is due to water column exceedances of effective numeric water quality objectives/criteria, then the only WQBEL which will not allow the discharge to cause or contribute to a violation of the numeric water quality objectives/criteria protecting the beneficial use(s) are end-of-pipe effluent limits based on these objectives/criteria.

b. For pollutants listed due to elevated fish tissue and sediment concentrations and for which there are numeric water quality objectives/criteria protective of the beneficial use(s), WQBELs were established for (1) concentration based on the most stringent applicable CTR criterion and/or Basin Plan, and (2) mass emission based on the maximum daily discharge flow rate and concentration limitation.

c. For 303(d)-listed non-priority pollutants (coliform and ammonia), water quality objectives specified in the Basin Plan that are applicable to the receiving water were prescribed.

31. Monitoring data indicated that the concentrations of copper, mercury, silver, and zinc are exceeding the CTR water quality criteria. The Discharger had investigated and identified that the source of these pollutants was from the dry weather stream. To comply with the stringent CTR water quality criteria for these metals, the Discharger proposed to eliminate the dry weather flow by diverting this stream to the sanitary sewer. On November 22, 2000, the Discharger submitted a time schedule for compliance. Subsequent to the design and approval, the piping system will be constructed and/or installed, and full compliance with the new effluent limits for copper, mercury, silver, and zinc will be achieved within one year from the issuance date of this Order. During the compliance period, the plant performance or the existing effluent limitations whichever is more stringent are imposed as the interim effluent limitations for these metals.

Notifications

32. The Regional Board has notified the Discharger and interested agencies and persons of its intent to issue waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

33. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.

34. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Clean Water Act or amendments thereto, and shall take effect at the end of 50 days from the date of its adoption provided the Regional Administrator, USEPA, has no objections.

35. Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, P. O. Box 100, Sacramento, California, 95812, within 30 days of adoption of the Order.

IT IS HEREBY ORDERED that Tosco Refining Company, 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 and guidelines adopted thereunder, shall comply with the following:

I. DISCHARGE REQUIREMENTS

A. Discharge Prohibition

1. Waste discharge shall be limited to storm water runoff, cooling tower blowdown, boiler blowdown, boiler feed treatment rinse water, boiler condensate, and reverse osmosis reject water only, as proposed.

2. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to a storm drain system, tributaries to Dominguez Channel, or waters of the State are prohibited.

B. Effluent Limitations

The discharge of an effluent from Discharge Serial No. 001 containing constituents in excess of the following limits is prohibited:

1. A pH value less than 6.5 or greater than 8.5.

2. A temperature value greater than 100^{o}F.

3. The fecal coliform concentration shall not exceed a log mean of 200 MPN/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of total samples during any 30-day period exceed 400 MPN/100ml.

4. Toxicity limitations:

    a. Acute Toxicity:

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

        ii. If either of the above requirements (Section 4.a.i) is not met, then the Discharger shall begin a Toxicity Identification Evaluation (TIE) using discharge water kept in reserve for this purpose. If the toxicity is complex, all phases including confirmatory phases of TIE may not be possible with reserve water, however, the TIE shall include all reasonable steps to identify the sources of toxicity. The TIE shall be continued with discharge water from the next discharge event. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the objective.

        iii. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program No. 7352.

b. Chronic Toxicity:

i. 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.

ii. Chronic toxicity of 100% effluent shall not exceed a monthly median of 1.0 TU_c or a daily maximum of 2.0 TU_c in a critical life stage test.

iii. If the chronic toxicity of the effluent exceeds the monthly median of 1.0 TU_c, the Discharger shall immediately initiate a TIE using discharge water kept in reserve for this purpose and implement the Initial Investigation TRE Worplan.

iv. The Discharger shall conduct chronic toxicity monitoring as specified in Monitoring and Reporting Program No. 7352.

5. Conventional and non-conventional pollutants:

		Discharge Limitations	
		Monthly	Daily
Constituent	Units	Average	Maximum
$BOD_5 20^oC$	mg/L	26	48
	lbs/day [1/]	2,435	4,496
Total suspended solids	mg/L	21	33
	lbs/day [1/]	1,967	3,091
Chemical oxygen demand	mg/L	180	360
	lbs/day [1/]	16,858	33,717
Oil and grease	mg/L	8	15
	lbs/day [1/]	749	1,405
Settleable solids	ml/L	0.1	0.3
Sulfide	mg/L	----	1.0
	lbs/day [1/]	----	93.7
Total oxidants	mg/L	----	0.1
(chlorine and/or bromine)	lbs/day [1/]	----	9.37

1/ Based on the maximum daily flow rate of 11.23 mgd.

6. Toxic pollutants:

Constituent	Units	Discharge Limitations Monthly Average	Daily Maximum
Phenolic compounds	µg/L	170	350
	lbs/day [1/]	15.9	32.8
Total chromium [2/]	µg/L	210	600
	lbs/day [1/]	19.7	56.2
Hexavalent chromium [2/]	µg/L	28	62
	lbs/day [1/]	2.62	5.81
Copper [2/]	µg/L	1.9	2.1
	lbs/day [1/]	0.178	0.197
Lead [2/]	µg/L	5.8	7.4
	lbs/day	0.543	0.693
Mercury [2/]	µg/L	0.05	0.1
	lbs/day [1/]	0.00468	0.00937
Nickel [2/]	µg/L	6.8	14
	lbs/day [1/]	0.637	1.31
Silver [2/]	µg/L	1.1	2.2
	lbs/day [1/]	0.103	0.206
Zinc [2/]	µg/L	33	40
	lbs/day	3.09	3.75
Cyanide	µg/L	0.5	1
	lbs/day [1/]	0.0468	0.0936
Bis (2-ethylhexyl) phthalate	µg/L	5.9	12
	lbs/day [1/]	0.553	1.12
Hexachlorobenzene	µg/L	0.00077	0.0015
	lbs/day [1/]	0.000072	0.00014
Chrysene	µg/L	0.049	0.098
	lbs/day [1/]	0.00459	0.00918

1/ Based on the maximum daily flow rate of 11.23 mgd.
2/ Discharge limitations for these metals are expressed as total recoverable.

7. Compliance schedule for copper, mercury, silver, and zinc:

   a. The Discharger shall have until April 1, 2002, to comply with the effluent limitations for copper, mercury, silver, and zinc specified in I.B.6 above.

   b. During the interim period, the Discharger shall comply with the following limitations for copper, mercury, silver, and zinc:

Constituent	Units	Discharge Limitation Daily Maximum
Copper[2/]	µg/L	100
	lbs/day [1/]	9.37
Mercury[2/]	µg/L	2.0
	lbs/day [1/]	0.187
Silver[2/]	µg/L	50
	lbs/day [1/]	4.68
Zinc[2/]	µg/L	500
	lbs/day	46.8

1/ Based on the maximum daily flow rate of 11.23 mgd.
2/ Discharge limitations for these metals are expressed as total recoverable.

c. Progress reports shall be submitted quarterly by the first day of the second month following each reporting quarter. The report should, at the minimum, include the progress of the City re-design and construction of the county sewer line, the design and installation of the Tosco's discharge line, and the timeline for the line testing and startup.

C. Receiving Water Limitations

1. The discharge shall not cause any of the following conditions to exist in the receiving waters at any time:

   a. Floating, suspended or deposited macroscopic particulate matter or foam;

   b. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   c. Visible, floating, suspended or deposited oil or other products of petroleum origin;

   d. Bottom deposits or aquatic growths; or,

   e. Toxic or other deleterious substances to be present in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge shall not cause nuisance, or adversely effect beneficial uses of the receiving water.

3. No discharge shall cause a surface water temperature rise greater than $5^{o}F$ above the natural temperature of the receiving waters at any time or place.

4. The discharge shall not cause the following limits to be exceeded in the receiving waters at

any place within one foot of the water surface:

a. The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units;

b. Dissolved oxygen shall not be less than 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation;

c. Dissolved sulfide shall not be greater than 0.1 mg/L;

d. Total ammonia (as N) shall not exceed concentrations specified in the Basin Plan (attachment H), subject to the following conditions:

The Discharger will have until June 13, 2002, to (1) make the necessary adjustments and/or improvements to meet these objectives, or (2) conduct studies leading to an approved less-restrictive site-specific objective for ammonia. If it is determined that there is an immediate threat or impairment of beneficial uses due to ammonia, the objectives in Attachment H shall apply, and the timing of compliance will be determined on a case-by-case basis by the Executive Officer;

e. Chronic Toxicity Requirements:

i. There shall be no chronic toxicity in ambient waters as a result of wastes discharged.

ii. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.

iii. If the chronic toxicity in the receiving water downstream of the discharge, at a monitoring station specified in MRP No. 7352, exceeds 1.0 TU_c in a critical life stage test and the toxicity cannot be attributed to upstream toxicity assessed by the Discharger, then the Discharger shall immediately implement the Initial Investigation TRE Workplan as specified in Section II.2 of this Order.

iv. If the results of chronic toxicity testing upstream is greater than the results of the testing downstream, and the TU_c of the effluent chronic toxicity test is less than 1.0 TU_c, then the Initial Investigation TRE Workplan does not need to be implemented.

5. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or State Board. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Regional Board will revise and modify this Order in accordance with such standards.

II. REQUIREMENTS

1. Pollution Minimization Program (PMP):

   The goal of the PMP is to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the WQBEL(s). The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Board:

   a. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

   b. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;

   c. Submittal of a control strategy designed to maintain concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;

   d. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and

   e. An annual status report that shall be sent to the Regional Board including:

      - All PMP monitoring results for the previous year;
      - A list of potential sources of the reportable priority pollutant(s);
      - A summary of all actions undertaken pursuant to the control strategy; and
      - A description of corrective and preventive actions to be taken in the following year to maintain/achieve compliance.

   The Discharger shall develop the PMP as soon as a priority pollutant is detected above its effluent limitation. However, the PMP is not required if the Discharger takes additional samples or has conducted an accelerated monitoring program during the period of discharge and the analytical results disputed the initial excursion and showed full compliance with the effluent limitation.

2. Initial Investigation TRE Workplan:

   The Discharger shall submit within 90 days of the effective date of this permit a copy of the initial investigation Toxicity Reduction Evaluation (TRE) workplan to the Executive Officer of the Regional Board for approval. If the Executive Officer does not disapprove the workplan within 60 days, the workplan shall become effective. The Discharger shall use USEPA manual EPA/600/2-88/070 (industrial) as guidance. 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 will 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 toxicity identification evaluation (TIE) is necessary, an indication of who would conduct the TIE (i.e., an in-house expert or an outside contractor).

3. The Discharger shall submit within 90 days of the effective date of this Order for the Executive Officer's approval:

   a. An updated Storm Water Pollution Prevention Plan (SWPPP) that describes site-specific management practices for minimizing storm water runoff from being contaminated, and for preventing contaminated storm water runoff from being discharged directly to waters of the State.

   b. A Best Management Practices Plan (BMPP) that entails site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the State. The updated BMPP shall be consistent with the requirements of 40 CFR 125, Subpart K, and the general guidance contained in the "NPDES Best Management Guidance Document", USEPA Report No. 600/9-79-045, December 1979 (revised June 1981). In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential of hazardous waste/material discharge to surface waters.

   Both plans shall cover all areas of the refinery and shall include an updated drainage map for the facility. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge points; describe the activities in each area and the potential for contamination of storm water runoff and the discharge of hazardous waste/material; and address the feasibility for containment and/or treatment of the storm water. The Discharger shall begin implementing both plans within 10 days of approval by the Executive Officer. The plans shall be reviewed annually and at the same time. Updated information shall be submitted within 30 days of revision.

4. The Discharger shall submit within 180 days of the effective date of this Order an updated contingency plan for the Executive Officer's approval. The Contingency Plan shall be site-specific and shall cover all areas of the refinery including the tank farm. The Discharger shall begin to implement the Contingency Plan within 10 days of approval. The Contingency Plan shall be reviewed at the same time as the SWPPP and BMPP. Updated information shall be submitted within 30 days of revision.

5. Pursuant to the requirements of 40 CFR 122.42(a), the Discharger must notify the Board

as soon as it knows or has reason to believe (1) that it has begun or expected to begin, use or manufacture a toxic pollutant not reported in the permit application, or (2) a discharge of toxic pollutant not limited by this Order has occurred, or will occur, in concentrations that exceed the specified limits in 40 CFR 122.42(a).

6. If the Discharger chooses to pursue a mass offset program, a mass offset plan for reducing the 303(d)-listed pollutants to the Dominguez Channel must be submitted for Board approval. This Order may be modified by the Board to allow an acceptable mass offset program.

III. PROVISIONS

1. This Order includes the attached "Standard Provisions and General Monitoring and Reporting Requirements" (Attachment N) dated March 1, 1999. If there is any conflict between provisions stated hereinbefore and the attached "Standard Provisions"; those provisions stated hereinbefore prevail.

2. This Order includes the attached Monitoring and Reporting Program. If there is any conflict between provisions stated in the Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the former prevail.

3. This Order includes the attached “Storm Water Pollution Prevention Plan Requirements” (Attachment A).

4. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to their storm drain systems.

5. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.

6. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic, 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.

IV. REOPENERS

1. This Order may be reopened upon the submission by the Discharger, of adequate information, as determined by the Regional Board, to provide for dilution credits or a mixing zone, as may be appropriate.

2. This Order may be reopened to modify the compliance schedule set forth herein. To qualify for this reopener, pursuant to the SIP and the State Board Order WQ 2001-06 (“Tosco decision”) the Discharger must provide, within one year following completion of the low (dry weather) flow diversion project, information as follows:

a. With respect to copper and zinc, information adequately demonstrating to the satisfaction of the Regional Board that the Tosco's Los Angeles Refinery, Carson Plant cannot feasibly comply with the CTR criterion or an effluent limitation based on the criterion within the time provided in this Order and that the Discharger has made appropriate commitment to support and expedite TMDL development in the Dominguez Channel.

b. With respect to mercury and silver, information adequately demonstrating to the satisfaction of the Regional Board that the Discharger qualifies under SIP, Section 2.1 for an extended compliance schedule.

3. This Order may be reopened and modified, in accordance with SIP Section 2.2.2.A, to incorporate new limits based on future reasonable potential analysis to be conducted, upon completion of the collection of additional data by the Discharger.

4. This Order may be reopened and modified, to incorporate in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach.

5. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include new MLs.

6. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR Parts 122.44(d)(1)(vi)(C)(4), if the limits on the indicator parameter (total nitrogen) no longer attain and maintain applicable water quality standards.

7. This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of the ammonia, nickel, and mercury objectives, or the adoption of a TMDL for Dominguez Channel.

8. This Order may be reopened and modified, to revise the toxicity language once that language becomes standardized.

9. This Order may also be reopened and 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 and permit, endangerment to human health or the environment resulting from the permitted activity.

V. EXPIRATION DATE

This Order expires on April 10, 2006.

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

application for issuance of new waste discharge requirements.

VI. RESCISSION

Order No. 94-001, adopted by this Regional Board on January 31, 1994, is hereby rescinded except for enforcement purposes.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on May 24, 2001.

Dennis A. Dickerson
Executive Officer