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

ORDER NO. R4-2002-0020

WASTE DISCHARGE REQUIREMENTS
FOR
TRW INC.
(TRW Space Park Facility)
(NPDES NO. CA0063924)

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

1. TRW Incorporated (hereinafter TRW or Discharger) discharges waste from its TRW Space Park Facility under waste discharge requirements, which serve as a National Pollutant Discharge Elimination System (NPDES) permit, contained in Order No. 96-059 adopted by this Regional Board on August 19, 1996 (NPDES Permit No. CA0063924). Order No. 96-059 expired on June 10, 2001.

2. TRW 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

3. The TRW Space Park Facility (Facility) is located at One Space Park, Redondo Beach, California (Figure 1). The Facility manufactures semiconductors, various electronic devices, satellites and satellite components. The Facility also develops computer software and performs research and development for lasers and optical systems. The Facility has been in operation since the early 1960's. Operations involve plating, anodizing, machining, etching, assembly and testing. Solvents have been used for cleaning of electric parts and metal structures during the manufacturing processes.

4. Clean and spent solvents have been stored in underground tanks at the Facility. It was discovered that the groundwater beneath the Facility has been contaminated with these solvents, thus requiring the installation of a groundwater cleanup facility at the site. TRW is currently working with Regional Board staff to perform the necessary remediation at this site.

Description of Waste Discharge

5. Wastes that might be discharged to surface waters from the Facility include:

   A. **Treated groundwater** generated from the remediation of solvent contamination in the groundwater. TRW proposes to discharge up to 130,000 gallons per day of treated groundwater produced from the cleanup of solvents contamination into a storm drain located at Latitude 33º 53' 40" North and Longitude 118º 22' 40" West

(Serial Discharge No. 001). The treated groundwater flows to the Dominguez Channel, a water of the United States, above the estuary (Figure 2) near the intersection of Manhattan Beach and Yukon.

The groundwater underneath the Facility is contaminated with volatiles and other organic compounds. The effluent characteristics for the treated groundwater as reported in the permit application are as follows:

Contaminant	Units	30-Day Average	Daily Maximum
Flow	Mgd	0.016	0.025
Temperature Winter (Oct. – April) Summer (May – Sept.)	 ºF ºF	 67.9 70.8	 68.1 71.2
pH	pH units	7.16	7.4
$BOD_5$20ºC	mg/L	<1	<1
Total suspended solids	mg/L	<75	<75
Total residual chlorine	mg/L	<0.1	<0.1
Oil and grease	mg/L	<15	<15
Ammonia (as N)	mg/L	<0.1	<0.1

TRW Space Park management contacted the Sanitation Districts of Los Angeles regarding the potential discharge of the treated groundwater to the sanitary sewer. Facility management was informed that Section 305 of the Wastewater Ordinance prohibits the discharge of groundwater to the county sanitation system. Only in instances where the facility receives a variance from the Sanitation Districts of Los Angeles with approval from the Chief Engineer will groundwater discharges to the sanitary sewer be allowed.

B. **Storm water runoff** from the Facility is subject to requirements under the general NPDES permit to regulate Discharge of Storm Water Associated with Industrial Activity (State Board Order No. 97-03-DWQ, NPDES Permit No. CAS000001, adopted on April 17, 1997). The Discharger has enrolled in the General Storm Water Permit for Industrial Activities and has implemented a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the general NPDES permit for storm water discharges. Storm water discharges from the Facility are not commingled with the treated wastewater discharge addressed in this permit.

Applicable Plans, Policies, and Regulations

6. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) as amended on January 27, 1997, by Regional Board Resolution No. 97-02. The Basin Plan (i) designates beneficial uses for surface and groundwaters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state antidegradation policy (*Statement of Policy with Respect to*

Maintaining High Quality Waters in California, State Board Resolution No. 68-16, October 28, 1968), and (iii) describes implementation programs to protect all waters in the Region. In addition, the Basin Plan incorporates all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. The Regional Board prepared the 1994 update of the Basin Plan to be consistent with all previously adopted State and Regional Board plans and policies. This Order implements the plans, policies and provisions of the Regional Board's Basin Plan.

7. The Basin Plan contains water quality objectives for, and lists the following beneficial uses for the Dominguez Channel.

   The Dominguez Channel to Estuary – (Hydrological Unit No. 405.12):

   Existing: non-contact water recreation, and rare, threatened or endangered species;
   Potential: water contact recreation, municipal and domestic supply, warm freshwater habitat, and wildlife habitat

   The Dominguez Channel Estuary:

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

8. Under title 40 Code of Federal Regulations (40 CFR) section 122.44(d), Water Quality *Standards and State Requirements*, "Limitations must control all pollutants or pollutant parameters (either conventional, non-conventional, or toxic pollutants), which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." Where numeric effluent limitations for a pollutant or pollutant parameter have not been established in the applicable state water quality control plan, 40 CFR section 122.44(d)(1)(vi) specifies that water quality-based effluent limitations (WQBELs) may be set based on United States Environmental Protection Agency (USEPA) criteria, and may be supplemented where necessary by other relevant information to attain and maintain narrative water quality criteria, and to fully protect designated beneficial uses.

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

includes specific bases for the effluent limitations.

10. 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 his 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 effluent limits would 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, would discourage the reduction in treatment efficiency during low flow periods and would require proper operation of 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 effluent limits.

11. Effluent limitations established pursuant to Sections 301 (Effluent Limitations), 302 (Water Quality-Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 304 (Information and Guidelines), and 402 (NPDES) of the Federal Clean Water Act and amendments thereto, are applicable to the discharges herein.

12. 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 section 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.

13. The CTR and SIP require dischargers' submittal of data to the Regional Board to: (1) determine if WQBELs for priority pollutants are required; and (2) to calculate effluent limitations, if required. The policy further provides that the time schedule for providing the data shall be as short as practicable but not to exceed three years from the date of the SIP, which was May 22, 2000.

14. The CTR criteria for freshwater or human health for consumption of organisms, whichever is more stringent, were used to prescribe the effluent limitations in this Order to protect the beneficial uses of the Dominguez Channel.

15. Under 40 CFR section 131.38(e)(6), the CTR authorizes the Regional Board to grant a compliance schedule for WQBELs based on CTR criteria for a period 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 (TMDL) and Waste Load Allocations 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.

Watershed Management Approach and Total Maximum Daily Loads (TMDLs)

16. The Regional Board has implemented the Watershed Management Approach to address water quality issues in the region. Watershed management may include diverse issues as defined by stakeholders to identify comprehensive solutions to protect maintain, enhance, and restore water quality and beneficial uses. To achieve this goal, the Watershed Management Approach integrates the Regional Board's many diverse programs, particularly TMDLs, to better assess cumulative impacts of pollutants from all point and nonpoint sources. A TMDL, is a tool for implementing water quality standards and is based on the relationship between pollution sources and in-stream water quality conditions. The TMDL establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby provides the basis to establish water quality-based controls. These controls should provide the pollution reduction necessary for a waterbody to meet water quality standards. This process facilitates the development of watershed-specific solutions that balance the environmental and economic impacts within the watershed. The TMDLs will establish waste load allocations (WLAs) and load allocations (LAs) for point and non-point sources, and will result in achieving water quality standards for the waterbody.

17. 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) and it receives discharges from highly developed and industrialized areas.

18. The Dominguez Channel (above Vermont) is classified as impaired on 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, DDT, and polynuclear aromatic hydrocarbons (PAHs).

- In fish tissue: lead, aldrin, Chem A (refers to the sum of aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, HCH (including lindane), endosulfan, and toxaphene), chlordane, DDT, dieldrin, and polychlorinated biphenyls (PCBs).

- In water column: copper, ammonia, and coliform.

Known and/or suspected sources of pollution include historical deposits of DDT and PCBs in sediment, discharges and/or spills from industrial facilities; leaching of

contaminated ground water, and urban runoff.

19. The TMDL development for Dominguez Channel is scheduled for Fiscal Year 2003 beginning with coliform. The TMDL development for the remaining of 303(d)-listed pollutants is not scheduled within the life of this permit. The TMDLs will include WLAs for the 303(d)-listed pollutants. Upon completion of TMDL, 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. The TMDL development for the toxic pollutants in Dominguez Channel will be scheduled beyond the life of this permit.

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

- The 303(d) listed pollutants exceed water column criteria. Since there is no assimilative capacity of the receiving water, a dilution factor is not appropriate and the final WQBEL should be a numeric objective 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 an organism directly or indirectly through contamination of bed sediments with subsequent incorporation into the food chain. The SIP, section 1.4.2.2.B. states that the "Regional Board shall deny or significantly limit a mixing zone and dilution credit as necessary to protect beneficial uses…" It continues that "such situations may exist based upon the quality of the discharge… or the overall discharge environment (including … potential for bioaccumulation)."

21. The Discharger may provide the information needed by the Regional Board to make a determination on allowing a mixing zone, including the calculations for deriving the appropriate receiving water and effluent flows, and/or the results of a mixing zone study. Upon receiving such data, the Regional Board will re-evaluate its determination for the need to incorporate dilution credits and will revise the effluent limitations as necessary.

Reasonable Potential Analysis

22. 40 CFR section 122.44(d)(1)(i) and (ii) require that each toxic pollutant be analyzed with respect to its reasonable potential when determining whether a discharge (1) causes, (2) has the reasonable potential to cause, or (3) contributes to the exceedance of a receiving water quality objective. This is done by conducting a reasonable potential analysis (RPA) for each pollutant. In performing the RPA, the permitting authority uses procedures that account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, and the sensitivity of the 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.

23. Section 1.3 of the SIP requires that a limit be imposed for a toxic pollutant if (1) the

maximum effluent concentration (MEC) is greater than the most stringent CTR criteria, (2) the background concentration is greater than the CTR criteria, or (3) other available information. For the pollutants on the 303(d) list, which have been present in the effluent during past monitoring events, effluent limits derived using the CTR criteria will be imposed in the permit.

24. The ambient monitoring data for Dominguez Channel (performed at Vermont Avenue), obtained under the Los Angeles County storm water program and conducted from 1987 through 1994 for Dominguez Channel in storm events and in dry weather conditions, confirmed the elevated concentrations of heavy metals and bacteria that exceed the CTR water quality criteria for saltwater and Basin Plan criterion, respectively.

25. RPAs were performed for each of 126 priority pollutants for which effluent data were available. The input data for the RPA are based on the effluent data provided in the Self-Monitoring Reports submitted by the Discharger. Four of the evaluated analytes yielded an RPA of yes. They are copper, lead, trichloroethylene, and zinc. Effluent limits for these analytes were stipulated in the previous order. The limits for these analytes stipulated in this order are based on the most stringent of the appropriate and applicable limits.

26. For pollutants that lacked effluent data, interim requirements, as described below, were assigned. For these pollutants, the Discharger must submit to this Regional Board effluent concentration data, so that complete reasonable potential analyses can be performed and the need for effluent limitations can be determined. Pollutants that lacked sufficient data to do RPAs are subject to interim monitoring requirements.

27. Interim requirements were developed according to the following:

- Interim requirements in the form of monitoring were prescribed for constituents with no monitoring data or with “non-detectable” (ND) data, where all of the reported detection limits were greater than or equal to the CTR criterion.

- No interim monitoring requirements or limits were prescribed for constituents whose highest monitoring data points or lowest detection limits (in case of ND) were below their respective CTR criterion.

28. For some pollutants, including aldrin, alpha-BHC, chlordane, DDT, dieldrin, heptachlor, heptachlor epoxide, several PAHs, PCBs, and toxaphene, that are on the 303(d) list the applicable water quality objectives are below the levels that current analytical techniques can measure. This is also true for TCDD equivalents, which are not on the 303(d) list for Dominguez Channel. Because the actual presence and loads of these pollutants are unknown, the monitoring program associated with this Order includes requirements to provide the data necessary to perform a RPA for these analytes.

29. Until the TMDL 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. Antibacksliding provisions are contained in Section 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) establishes express statutory language prohibiting the backsliding of effluent limitations.

30. As such, water quality objectives/criteria specified in the Basin Plan, the CTR, or the effluent limits from the existing permit were used to set the limits for pollutants that are believed to be present in the effluent and have reasonable potential of exceeding the water quality criteria. Other pollutants may only be monitored to gather data to be used in RPAs for future permit renewals and updates.

31. 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 for which RPA indicates a reasonable potential, were established for (1) concentration based on the most stringent applicable CTR criterion and/or Basin Plan objective, and (2) mass emission based on the maximum discharge flow rate and concentration limitation.

CEQA and 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 NPDES permit pursuant to Section 402 of the Federal Clean Water Act or amendments thereto, and shall take effect at the end of ten days from the date of its adoption, provided the Regional Administrator, USEPA, has no objections.

35. Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition to 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.

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

IT IS HEREBY ORDERED that TRW Inc. (Space Park Facility), 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. Wastes discharged shall be limited to treated groundwater, as proposed, and storm water.

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

1. The pH of wastes discharged shall at all times be within the range 6.5 to 8.5.

2. The temperature of wastes discharged shall not exceed 100°F.

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

Constituents	Units	Discharge Limitations Monthly Average[1]	Daily Maximum
Total suspended solids	mg/L lbs/day[2]	50 54.2	75 81.3
Constituents	**Units**	**Discharge Limitations Monthly Average[1]**	**Daily Maximum**
$BOD_5$20°C	mg/L lbs/day[2]	20 21.7	30 32.5
Oil and grease	mg/L lbs/day[2]	10 10.8	15 16.3
Sulfides	mg/L lbs/day[2]	---- ----	1.0 1.08
Phenols	mg/L lbs/day[2]	---- ----	1.0 1.08
Turbidity	NTU	50	75
Settleable solids	ml/L	0.1	0.3
Phenolic compounds (Chlorinated)	µg/L lbs/day[2]	---- ----	1.0 0.001
Benzene	µg/L	----	1.0

[1]The monthly average concentration shall be the arithmetic average of all the values of daily concentrations calculated using the results of analyses of all samples collected during the month. If only one sample is taken within that month, compliance shall be based on this sample result.
[2]The mass emission for a pollutant was calculated based on a discharge flow rate of 0.13 mgd for treated groundwater.

	lbs/day[2]	---	0.001
Toluene	µg/L lbs/day[2]	---- ----	10 0.01
Xylenes	µg/L lbs/day[2]	---- ----	10 0.01
Ethylbenzene	µg/L lbs/day[2]	---- ----	10 0.01
Carbon tetrachloride	µg/L lbs/day[2]	---- ----	0.5 0.0005
Tetrachloroethylene	µg/L lbs/day[2]	---- ----	5.0 0.005
Trichloroethylene	µg/L lbs/day[2]	---- ----	5.0 0.005
1,1,1-Trichloroethane	µg/L lbs/day[2]	---- ----	200 0.2
1,4-Dichlorobenzene	µg/L lbs/day[2]	---- ----	5.0 0.005
1,1-Dichloroethane	µg/L lbs/day[2]	---- ----	5.0 0.005
1,2-Dichloroethane	µg/L lbs/day[2]	---- ----	0.5 0.0005
1,1-Dichloroethylene	µg/L lbs/day[2]	---- ----	6.0 0.0065

Constituents	Units	Discharge Limitations Monthly Average[1]	 Daily Maximum
Vinyl chloride	µg/L lbs/day[2]	---- ----	0.5 0.0005
Acetone	µg/L lbs/day[2]	---- ----	700 0.759
Lead[3]	µg/L lbs/day[2]	2.6 0.003	5.2 0.006
Arsenic [3]	µg/L lbs/day[2]	---- ----	50 0.054
Chromium[3]	µg/L lbs/day[2]	---- ----	50 0.054
Silver[3]	µg/L lbs/day[2]	2.0 0.002	4.0 0.004
Cadmium[3]	µg/L lbs/day[2]	2.0 0.002	4.0 0.004
Selenium[3]	µg/L lbs/day[2]	4.1 0.0045	8.2 0.009
Mercury[3]	µg/L lbs/day[2]	0.05 0.00005	0.1 0.0001
Copper[3]	µg/L lbs/day[2]	6.9 0.008	14 0.015
Zinc[3]	µg/L lbs/day[2]	59.7 0.064	119.8 0.13

[1] The monthly average concentration shall be the arithmetic average of all the values of daily concentrations calculated using the results of analyses of all samples collected during the month. If only one sample is taken within that month, compliance shall be based on this sample result.
[2] The mass emission for a pollutant was calculated based on a discharge flow rate of 0.13 mgd for treated groundwater.
[3] Metals limits are for total recoverable concentrations.

4. Toxicity limitations:

a. Acute Toxicity Limitation and Requirements

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

2. If any acute toxicity bioassay test result is less than 90% survival, the Discharger shall conduct six additional tests over a six-week period. The discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the close of the test and the additional tests shall begin within 3 business days of the receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the discharger may resume regular testing. However, if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet objective.

3. If any two out of the initial test and the additional six acute toxicity bioassay test result in less than 70% survival, including the initial test, the Discharger shall immediately begin a TIE.

4. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program No. 7697.

b. Chronic Toxicity Limitation and Requirements:

1. This Order includes a chronic testing toxicity trigger defined as an exceedance of 1.0 TU_c in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed 1.0 TU_c in a critical life stage test.)

2. If the chronic toxicity of the effluent exceeds 1.0 TU_c, the Discharger shall immediately implement an accelerated chronic toxicity testing according to MRP No. 7697, Section IV.D. If the results of two of the six accelerated tests exceed 1.0 TU_c, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan. (see I.B.4.b.5.iv, below).

3. The Discharger shall conduct chronic toxicity monitoring as specified in MRP No. 7697.

4. 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.

5. Preparation of an Initial Investigation TRE Workplan

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

   ii. 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;

   iii. 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,

   iv. If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor) (See MRP Section IV.E.3. for guidance manuals).

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 growth; 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. 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.

3. 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 (June 13, 1994, Attachment H), subject to the following conditions:

The Discharger will have until June 13, 2002, to (1) make the necessary adjustment and/or improvements to met 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 objective in Attachment H shall apply, and the timing of compliance will be determined on a case-by-case basis by the Executive Officer; and

4. 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. In the determination of compliance with the monthly average limitations, the following provisions shall apply to all constituents:

a. If the analytical result of a single sample, monitored monthly or at a lesser frequency, does not exceed the monthly average limit for that constituent, the Discharger will have demonstrated compliance with the monthly average limit for that month.

b. If the analytical result of a single sample, monitored monthly or at a lesser frequency, exceeds the monthly average limit for any constituent, the Discharger shall collect three additional samples at approximately equal intervals during the month. All four analytical results shall be reported in the monitoring report for that month, or 45 days after the sample was obtained, whichever is later.

   If the numerical average of the analytical result of these four samples does not exceed the monthly average limit for that constituent, compliance with the monthly average limit has been demonstrated for that month. Otherwise, the monthly average limit has been violated.

c. If Item II.1.b. has not been implemented, and the result of one sample (Item II.1.a) exceeds the monthly average, then the Discharger is in violation of the monthly average limit.

d. In the event of noncompliance with a monthly average effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the monthly average effluent limitation has been demonstrated.

2. The Discharger shall comply with all applicable requirements, such as the Storm Water Pollution Prevention Plan (SWPPP) updates and Monitoring and Reporting Program, of State Board's general permit for *Discharges of Storm Water Associated with Industrial Activities* (State Board Order No. 97-03-DWQ adopted on April 17, 1997).

3. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States is prohibited unless specifically authorized elsewhere in this permit. This requirement is not applicable to products used for lawn and agricultural purposes. Discharge of chlorine for disinfection in plant potable and service water systems and in sewage treatment is authorized.

4. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream which ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.

5. There shall be no discharge of PCB compounds such as those once commonly used for transformer fluid.

6. The Discharger shall notify the Executive Officer in writing no later than six months prior to planned discharge of any chemical, other than chlorine or other product previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:

   a. Name and general composition of the chemical,
   b. Frequency of use,
   c. Quantities to be used,
   d. Proposed discharge concentrations, and
   e. USEPA registration number, if applicable.

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

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

III. Provisions

1. 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 hereinbefore and the attached Standard Provisions, those provisions attached herein prevail.

2. 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, those provisions stated in the Monitoring and Reporting Program prevail.

3. This Order may be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62, 122.63, 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this order and permit, 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.

4. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Board to local agencies.

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 effluent standards, and all federal regulations established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, and 423 of the Federal Clean Water Act and amendments thereto.

IV. Reopeners

1. 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.

2. 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.

3. 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.

4. 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 objective, or the adoption of a TMDL for Dominguez Channel Watershed.

5. 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.

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

7. This Order may also be reopened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this order and permit, endangerment to human health or the environment resulting from the permitted activity.

V. Expiration Date

This Order expires on December 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 the expiration date

as application for issuance of new waste discharge requirements.

VI. Rescission

Order No. 96-059, adopted by this Board on August 19, 1996, 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 January 24, 2002.

Dennis A. Dickerson
Executive Officer