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

ORDER NO. R4-2004-0169
NPDES PERMIT NO. CA0064114

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT AND WASTE DISCHARGE REQUIREMENTS FOR NORTHROP GRUMMAN SPACE AND MISSION SYSTEMS CORP. (FORMERLY TRW INC.) (BENCHMARK FACILITY)

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

Background

1. Northrop Grumman Space and Mission Systems Corp. (hereinafter Northrop or Discharger) discharges treated groundwater from their Benchmark Facility (Facility) to a storm drain, which then conveys wastewater to San Jose Creek, a water of the United States. Wastes discharged from Northrop are regulated by Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit contained in Board Order No. 97-057 (NPDES Permit No. CA0064114). Order No. 97-057 expired on April 10, 2002.

2. Northrop is the owner and operator of a site located at 200 S. Turnbull Canyon Road in the City of Industry, California. The Discharger formerly operated a manufacturing facility for printed circuit boards at the location from 1955 until its closure in 1989. Northrop owned and operated the Facility from 1968 to 1983. During this time, various industrial solvents were used, stored, and regenerated at the site. Chlorinated solvents and other chemicals were used as part of the manufacturing process. During the routine handling of these chemicals, accidental spills and leaks occurred. In 1990 and 1991, the buildings on the site were demolished and soil impacted by high levels of volatile organic compounds (VOCs) and metals was excavated. Pursuant to Cleanup and Abatement Order No. 89-034, Northrop is currently conducting groundwater remediation at the site for VOCs and 1,4-Dioxane. In 1995 the groundwater treatment facility was installed. The site is currently used as a warehousing facility for a furniture wholesaler. Figure 1 provides a site location map.

3. Effective December 18, 2002, the name of “TRW, Inc.” was changed to Northrop Grumman Space and Mission Systems Corporation.

July 28, 2004
Revised: September 30, 2004
Revised: October 13, 2004

Purpose of Order

4. The Discharger has applied for renewal of its WDRs and NPDES permit for discharge of up to 216, 000 gallons per day (gpd) of treated groundwater produced from the cleanup of VOCs and 1,4-Dioxane contamination into a storm drain, Discharge Serial No. 001, Latitude 34° 01' 15" and Longitude 117° 58' 20". The wastewater (treated groundwater) flows to the San Jose Creek, a water of the United States. The purpose of this NPDES permit is to renew the WDRs for Northrop.

Facility Description

5. The groundwater treatment system includes ten groundwater extraction wells. Also, purge water from all sampled wells is treated during the process. A permit compliance inspection conducted on March 26, 2004, revealed that the facility operates on an alternate monthly (one month on/one month off) schedule. Each extraction well is connected to a pipe manifold in the treatment area. The extracted groundwater from the wells is pumped through an oxidation system that utilizes ozone and hydrogen peroxide for the treatment of 1,4-dioxane and VOCs and is then routed through an air stripper. The treated water can be pumped through a liquid-phase carbon adsorption vessel and ion exchange unit as tertiary treatment for VOC removal if additional treatment is required. This additional treatment step is not a common practice and has not occurred within the last five years of operation. The treated groundwater is discharged to a storm drain that discharges to San Jose Creek.

Discharge Description

6. Northrop proposes to discharge up to 216,000 gpd of treated groundwater from the cleanup of VOCs and 1,4-dioxane, to a storm drain (Discharge Serial No. 001) that flows into the San Jose Creek. Figure 2 depicts the wastewater flow diagram of the Facility.

7. Regional Board Order No. 97-057 permitted discharge of up to 72,000 gpd treated groundwater. The discharge is projected to increase to 216,000 gpd. The Facility is a component of the Puente Valley Operable Unit (PVOU), within the San Gabriel Valley Groundwater Regional Cleanup.

8. Discharge Monitoring Reports submitted to the Regional Board by the Discharger indicate that the Facility did not discharge effluent from the 2nd reporting period of 2000 through the 4th quarter of 2000 due to the addition of the advanced oxidation system to treat the groundwater for 1,4-dioxane.

9. Northrop in an agreement with United States Environmental Protection Agency (U.S. EPA) has consented to clean up a portion of the shallow groundwater in the City of Industry. Groundwater from up to five additional groundwater wells will be treated for volatile organic compounds and 1,4-dioxane. The new wells that have high background concentration of selenium will begin operating in two years.

10. The Regional Board and the U.S. EPA have classified the Northrop facility as a minor discharge.

11. Northrop is responsible to implement the "intermediate zone" component of the U.S. EPA lead regional PVOU treatment. This treatment is expected to produce treated groundwater to drinking water standards and blend with other potable water. Because of very high concentration of VOCs and 1,4-Dioxane in the influent groundwater, California Department of Health Services (DHS) may not approve potable use for that water.

    Northrop discussed the usage of treated groundwater for irrigation with Suburban Water System, City of Industry, and San Gabriel Valley Water Company (potable water supplier). None of the entities have the capacity to take the treated groundwater for reclamation. Northrop intends to keep pursuing the reuse option.

12. Northrop is actively pursuing the option of discharging the treated groundwater to the municipal sanitary sewer of the County Sanitation Districts of Los Angeles County (CSDLAC). After obtaining the industrial discharge permit from CSDLAC, Northrop plan to request recession of the NPDES permit.

Applicable Plans, Policies, and Regulations

13. 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 (by reference) 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.

14. **Ammonia Basin Plan Amendment.** The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life*. The ammonia Basin Plan amendment was approved by the State Board, the Office of Administrative Law (OAL), and U.S. EPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they

are still protective of aquatic life and are consistent with U.S. EPA's 1999 ammonia criteria update.

15. The Basin Plan contains water quality objectives and beneficial uses for inland surface waters and for the Pacific Ocean. Inland surface waters consist of rivers, streams, lakes, reservoirs, and inland wetlands. Beneficial uses for a surface water can be designated, whether or not they have been attained on a waterbody, in order to implement either federal or state mandates and goals (such as fishable and swimmable for regional waters).

16. The receiving waters for the permitted discharge covered by this permit is San Jose Creek. The beneficial uses listed in the Basin Plan for the San Jose Creek are:

    Existing Uses: wildlife habitat.

    Intermittent Uses: non-contact water recreation, groundwater recharge, and warm freshwater habitat.

    Potential Uses: municipal and domestic supply and water contact recreation.

17. The State Water Resources Control Board (State Board) adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.

18. On May 18, 2000, the U.S. EPA promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR §131.38]. In the CTR, U.S. EPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. The CTR also allows for a schedule of compliance not to exceed five years from the date of permit renewal for an existing discharger if the Discharger demonstrates that it is infeasible to promptly comply with effluent limits derived from the CTR criteria.

19. On March 2, 2000, the 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 U.S. EPA through the 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 U.S. EPA 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 U.S. EPA through the CTR. The SIP requires the dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring water quality-based effluent limits (WQBELs) and to calculate the effluent limitations. The CTR criteria for salt water or human health for consumption of organisms, whichever is

more stringent, are used to develop the effluent limitations in this Order to protect the beneficial uses of the San Jose Creek.

20. Under 40 CFR 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 [permitting authority] 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 WQBELs may be set based on U.S. EPA 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.

21. 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 U.S. EPA for some pollutants in this discharge. Effluent limitations for pollutants not subject to the U.S. EPA 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 U.S. EPA water quality criteria which are taken from the 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.

22. State and Federal antibacksliding and antidegradation policies require that Regional Board actions protect the water quality of a water body and ensure that the waterbody will not be further degraded. The antibacksliding provisions are specified in section 402(o) and 303(d)(4) of the CWA and in the Title 40, Code of Federal Regulations (40 CFR), section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.

23. On October 8, 1997, the State of California then Governor, Pete Wilson, signed Assembly Bill 592. Assembly Bill 592 requires the State of California, Department of Health Services (DHS) to adopt primary and secondary drinking water standards for MTBE. In January 1999, the DHS adopted 5 µg/L as the secondary standard for MTBE based on taste and odor threshold. In April 2000, the DHS adopted 13 µg/L as the primary Maximum Contaminant Level (MCL) for MTBE. This order includes a revise effluent limitation for MTBE of 13 µg/L.

24. Tertiary Butyl Alcohol (TBA) is a gasoline constituent, an impurity in commercial-grade MTBE, and/or a breakdown product of MTBE. In 1999, California's Office of Environmental Health Hazard Assessment (OEHHA) conducted an interim assessment based on preliminary calculations of the carcinogenicity of TBA, concluding that exposures to TBA via the oral route represent a one in a million excess cancer risk or 12 µg/L. Based on this assessment, OEHHA has set an Action Level for TBA at 12 µg/L.

25. The DHS establishes Action Levels (AL), or health-based advisory levels for chemicals in drinking water that lack maximum contaminant levels (MCLs). The Public Health Goal (PHG) for perchlorate was developed by Office of Environmental Health Hazard Assessment based on contemporary health risk assessment. This new information was provided to DHS and on March 11, 2004, the AL for perchlorate was set at 6 µg/L. The effluent limit for perchlorate (6 µg/L) is given in this WDR based on the AL value selected by DHS.

26. Effluent limitations are established in accordance with sections 301, 304, 306, and 307 of the federal CWA, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of the San Jose Creek.

27. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986. Superfund is the Federal government' s program to clean up the nation' s uncontrolled hazardous waste sites. Under the Superfund program, abandoned, accidentally spilled, or illegally dumped hazardous waste that pose a current or future threat to human health or the environment are cleaned up. One of EPA' s top priorities is to get those that are Potentially Responsible Parties (the PRPs) to clean up the site.

    The San Gabriel Valley (Area 4) site is an area of contaminated groundwater that runs along San Jose Creek in La Puente. This site is one of four Superfund sites located in the 170-square-mile San Gabriel Valley. Over 30 square miles of groundwater under the Valley may be contaminated. The sites include four large areas of groundwater contamination that underlie significant portions of the Cities of Alhambra, Arcadia, Azusa, Baldwin Park, Industry, El Monte, La Puente, Monrovia, Rosemead, South El Monte, West Covina, and other areas of the San Gabriel Valley. Groundwater and soil are contaminated with various VOCs. To date, nearly 400 individual facilities have been confirmed as having soil contamination.

    US E.P.A. will be operating the PVOU to treat the VOCs which are the primary hazardous substances of concern. The selected remedy for the PVOU includes extraction, containment and treatment of contaminated groundwater in the shallow and intermediate zones at the mouth of Puente Valley. The selected treatment technology in the Record of Decision (ROD) is air stripping and adsorption of VOCs in the off-gas. Total Dissolved Solids (TDS) and nitrates at some contaminated wells are little higher the Basin Plan requirements. U.S EPA has obtained a waiver for the constituents for discharge from PVOU. The Northrop Benchmark Facility is located in the San Gabriel Valley (Area 4) superfund area. Northrop has installed the same treatment technology to clean-up the contaminated groundwater as specified in ROD. No limits for TDS and nitrates are given for the Benchmark Facility.

28. 1,4-Dioxane is one of the primary contaminated hazardous substance in the groundwater. The DHS established AL value of 3 µg/L for 1,4-Dioxane The effluent limit for 1,4-Dioxane is given in this WDR based on the AL value selected by DHS.

Watershed Management Approach and Total Maximum Daily Loads (TMDLs)

29. 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 non-point 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 allocation (WLAs) and load allocations (LAs) for point and non-point sources, and will result in achieving water quality standards for the waterbody.

30. The San Jose Creek receives discharges from industrial areas. The 2002 State Board's California 303(d) List classifies San Jose Creek as impaired. The pollutants of concern include ammonia, algae, and high coliform count.

Data Availability and Reasonable Potential Monitoring

31. 40 CFR 122.44(d)(1)(ii) requires 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 performing 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 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 U.S. EPA's *Technical Support Document for Water Quality-Based Toxics Control (TSD) of 1991* (USEPA/505/2-90-001), addresses this issue by suggesting the use of a statistical approach.

32. Regional Board staff has determined that pollutants that have effluent limits in the current Order will be included in this Order. Effluent limits have been established for priority pollutants that show reasonable potential to exceed state water quality standards. This

Order also includes requirements for additional monitoring to provide the data needed to complete an RPA on all of the priority pollutants.

33. An RPA was completed using the data collected at the site for the period October 2001 to October 6, 2004 for priority pollutants to determine if any of the constituents sampled at the site showed reasonable potential. Based on the RPA, there was reasonable potential to exceed water quality standards for copper, selenium, silver, and zinc. Thus, effluent limitations and new effluent monitoring requirements have been established in this Order.

Compliance Schedules and Interim Limitations

34. The Northrop Facility may not be able to achieve immediate compliance with the final WQBELs for copper, selenium, silver, and zinc contained in Section I.B.4. of this Order. Data submitted in self-monitoring reports indicate that these constituents have been detected at concentrations greater than the new limits proposed in this Order. Therefore, interim limits for these constituents have been included in this Order.

35. The SIP requires that the Regional Board establish other interim requirements such as requiring the Discharger to develop a pollutant minimization plan and/or source control measures and participate in the activities necessary to achieve the final effluent limitations. These interim limitations shall be effective until November 30, 2007, for copper, silver, and zinc and October 10, 2009, for selenium after which, the Discharger shall demonstrate compliance with the final effluent limitations.

36. The Discharger also will be required to develop and implement a compliance plan that will identify the measures that will be taken to reduce the concentrations of copper, selenium, silver, and zinc in their discharge. This plan should evaluate options to achieve compliance with the interim and final effluent limitations. These options can include, for example, evaluating and updating available treatment unit processes, upgrading the system if necessary, and maintaining proper operation and maintenance of the treatment system.

CEQA and Notifications

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

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

39. 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 30 days (December 4, 2004) from the date of its adoption, in accordance with federal law, provided the Regional Administrator, U.S. EPA, has no objections.

40. 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, Office of Chief Counsel, ATTN: Elizabeth Miller Jennings, Senior Staff Counsel, 1001 I Street, 22nd Floor, Sacramento, California, 95814, within 30 days of adoption of this Order.

41. 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 Northrop Grumman Space and Mission Systems Corp - Benchmark Facility, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted there under, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted there under, shall comply with the following:

I. DISCHARGE REQUIREMENTS

A. Discharge Prohibitions

1. Wastes discharged shall be limited to a maximum of 216,000 gallons per day (gpd) of treated groundwater from Discharge Outfall 001. The discharge of wastes from accidental spills or other sources is strictly prohibited.

2. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to the San Jose Creek, or waters of the State, are prohibited.

B. Effluent Limitations

The discharge of an effluent in excess of the following limitations is prohibited:

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

2. A temperature greater than 86° F.

3. Toxicity limitations:

a. Acute Toxicity Limitation and Requirements

i. 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 (or shorter test duration period with Executive Officer approval) static or continuous flow bioassay tests shall be at least 90%, and (ii) no single test shall produce less than 70% survival.

ii. If either of the above requirements [Section I.B.3.a.(i)] is not met, the Discharger shall conduct six additional tests over a 6-week period, if possible. The Discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the completion 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 source(s) of toxicity. Once the source(s) of toxicity is identified, the Discharger shall take all reasonable steps to reduce the toxicity to meet the objective.

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

iv. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program No. 7531.

4. Final effluent limitations: In addition to the Requirements I.B.1 through I.B.3, the discharge of treated groundwater from Discharge Serial No. 001 (Latitude 34° 01' 15" and Longitude 117° 58' 20") containing constituents in excess of the following limits is prohibited:

Constituent (units)	Maximum Daily Discharge Limitations	Average Monthly Discharge Limitations [1]
Flow (gpd)	216,000	
PH (s.u.)	6.5 – 8.5 [2]	
Total suspended solids (mg/L)	75	50
Oil and grease (mg/L)	15	10
BOD_5 @ 20°C (mg/L)	30	20
Turbidity (NTU)	75	50
Settleable solids (mg/L)	0.3	0.1
Sulfate (mg/L)	300	--

Constituent (units)	Maximum Daily Discharge Limitations	Average Monthly Discharge Limitations [1]
Chloride (mg/L)	150	--
1,4-Dioxane (µg/L)	3	--
Benzene (µg/L)	1.0	--
Toluene (µg/L)	10	--
Total xylene (µg/L)	10	--
Ethylbenzene (µg/L)	10	--
Carbon Tetrachloride (µg/L)	0.5	--
1,1,1-Trichloroethane (µg/L)	200	--
Trichloroethylene (µg/L)	5	--
Tetrachloroethylene (µg/L)	5	--
1,4-Dichlorobenzene (µg/L)	5	--
1,1-Dichloroethane (µg/L)	5	--
1,2-Dichloroethane (µg/L)	0.5	--
1,1-Dichloroethylene (µg/L)	6	--
Vinyl Chloride (µg/L)	0.5	--
Arsenic [3] (µg/L)	50	--
Cadmium [3] (µg/L)	9.18	4.58
Total Chromium [3] (µg/L)	50	--
Copper [3] (µg/L)	37.4	18.6
Lead [3] (µg/L)	19.71	9.82
Mercury [3] (µg/L)	0.102	0.051
Selenium [3] (µg/L)	8.2	4.1
Silver [3] (µg/L)	24.4	12.2
Zinc [3] (µg/L)	290.14	144.64
Total petroleum hydrocarbons (µg/L)	100	--

Constituent (units)	Maximum Daily Discharge Limitations	Average Monthly Discharge Limitations [1]
Perchlorate (µg/L)	6	--
Methyl tertiary butyl ether (MTBE) (µg/L)	13	--
Tertiary butyl alcohol (µg/L)	12	--

.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 in that month, compliance shall be based on this sample result.

2 The pH must remain within this range at all times.

3 Effluent limitations for these metals are expressed as total recoverable.

5. Interim Effluent Limitations.

a. Copper, Silver, and Zinc: From the effective date of this Order until November 30, 2007, the discharge of an effluent in excess of the following limitations is prohibited:

Constituents	Daily Maximum Concentration (µg/L)
Copper [1]	69
Silver [1]	31
Zinc [1]	320

[1] Discharge limitations for these metals are expressed as total recoverable.

From December 1, 2007, the Discharges must comply with the final limits for these constituents stipulated in the Table in section I.B.4.

b. Selenium: From the effective date of this Order until October 10, 2009, the discharge of an effluent in excess of the following limitations is prohibited:

Constituents	Daily Maximum Concentration (µg/L)
Selenium [1]	27

[1] Discharge limitations for these metals are expressed as total recoverable.

From October 11, 2009, the Discharges must comply with the final limits for these constituents stipulated in the Table in section I.B.4.

C. Receiving Water Limitations

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

   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. The discharge shall not 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 limitations to be exceeded in the receiving waters at any place within the waterbody of the receiving waters:

   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. The ammonia in the 1994 Basin Plan were revised by Regional Board Resolution No. 2002-011, adopted on April 28, 2002, to be consistent with the 1999 U.S. EPA update on ammonia criteria. Regional Board

Resolution No. 2002-011 was approved by State Board, OAL and U.S. EPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively and is now in effect. Total ammonia (as N) shall not exceed concentrations specified in the Regional Board Resolution 2002-011.

5. The discharge shall not cause a violation of any applicable water quality standards 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 or modify this Order in accordance with such standards.

6. The discharge shall not cause the following to be present in receiving waters:

   a. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses;

   b. Chemical substances in amounts that adversely affect any designated beneficial use;

   c. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water;

   d. Suspended or settleable materials in concentrations that cause nuisance or adversely affect beneficial uses;

   e. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses;

   f. Substances that result in increases of $BOD_5$20°C that adversely affect beneficial uses;

7. The discharge shall not alter the color, create a visual contrast with the natural appearance, nor cause aesthetically undesirable discoloration of the receiving waters.

8. The discharge shall not degrade surface water communities and populations including vertebrate, invertebrate, and plant species.

9. The discharge shall not damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload their design capacity.

10. The discharge shall not cause problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.

II. REQUIREMENTS

A. Compliance Plan

1. The Discharger shall develop and implement a compliance plan that will identify the measures that will be taken to reduce the concentrations of copper, selenium, silver, and zinc in their discharge. This plan must evaluate options to achieve compliance with the permit limitations specified in provision I.B.4.

2. The Discharger shall submit annual reports to describe the progress of studies and or actions undertaken to reduce copper, silver, and zinc in the effluent, and to achieve compliance with the limits in this Order by the deadline specified in provision I.B.5. The Regional Board shall receive the first annual progress report at the same time the annual summary report is due, as required in Section I.B of *MRP* No. CI-7531.

3. The interim limits stipulated in Section I.B.5 shall be in effect for a period not to extend beyond November 30, 2008. Thereafter, the Discharger shall comply with the final limitations specified in Section I.B.4 of this Order.

B. 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, to 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).

C. The Discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this Order.

D. The Discharger shall comply with the waste load allocations that will be developed from the TMDL process for the 303(d)-listed pollutants.

E. 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 or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.

F. 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.

G. The Discharger shall notify the Executive Officer in writing no later than six months prior to the 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.

H. The Regional Board and U.S. EPA shall be notified immediately, by telephone, of the presence of adverse conditions in the receiving waters 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

A. 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 attached Standard Provisions, those provisions stated herein shall prevail.

B. This Order includes the attached *MRP* No. CI-7531. If there is any conflict between provisions stated in the *MRP* and the Standard Provisions, those provisions stated in the former shall prevail.

C. This Order may be modified, revoked, 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; 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.

D. 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.

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

F. 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.

G. Compliance Determination

1. 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 II.C. of *MRP)*, then the Discharger is out of compliance.

2. 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 a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the monthly average limit for any constituent, the Discharger shall collect four additional samples at approximately equal intervals during the month. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement II.C. of *MRP*), the numerical average of the analytical results of these five 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 Requirement III. D. of *MRP*), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

c. 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.

d. If only one sample was obtained for the month or more than a monthly period and the result exceed the monthly average, then the Discharger is in violation of the monthly average limit.

3. 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, provided that the applicable ML is used.

4. 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 = $[X_{n/2} + X_{(n/2)+1}]$, i.e. the midpoint between the n/2 and n/2+1 data points.

H. In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for "Not Detected" (ND) and the estimated concentration for "Detected, but Not Quantified" (DNQ) for the calculation of the monthly average concentration. To be consistent with section II.G.3., if all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant concentrations should be considered as zero for the calculation of the monthly average concentration.

IV. REOPENERS

A. This Order may be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the RPA.

B. 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.

C. 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.

D. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective or the adoption of a TMDL for the San Jose Creek.

E. This Order may be reopened upon 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.

F. 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, and endangerment to human health or the environment resulting from the permitted activity.

V. EXPIRATION DATE

This Order expires on October 10, 2009.

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. 97-057, adopted by this Regional Board on May 12, 1997, is hereby rescinded except for enforcement purposes.

I, Jonathan 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 December 13, 2004.

_____
Jonathan Bishop
Executive Officer