CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576 - 6600 • Fax (213) 576 - 6640
http://www.waterboards.ca.gov

ORDER NO. R4-2011-0191
NPDES NO. CA0057649

WASTE DISCHARGE REQUIREMENTS FOR LOS ANGELES DEPARTMENT OF WATER AND POWER, HAYNES TANK FARM TANKS A-J

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	Los Angeles Department of Water and Power
Name of Facility	Haynes Tank Farm Tanks A-J
Facility Address	6801 East Second Street
	Long Beach, California 90803
	Los Angeles County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a minor discharge.	

The discharge by the Los Angeles Department of Water and Power from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Storm water runoff from tank farm areas	33° 45' 42" N	118° 05' 31" W	Los Alamitos Channel, tributary to the San Gabriel River Estuary
002		33 °45' 50" N	118° 05' 32" W	
003		33 °46' 02" N	118° 05' 35" W	
004		33° 46' 10" N	118° 05' 39" W	

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	**December 8, 2011**
This Order shall become effective on:	**January 7, 2012**
This Order shall expire on:	**November 10, 2016**
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	**180 days prior to the Order expiration date**

I, Samuel Unger, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on December 8, 2011.

Samuel Unger

Samuel Unger, Executive Officer

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I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	Los Angeles Department of Water and Power
Name of Facility	Haynes Tank Farm Tanks A-J
Facility Address	6801 East Second Street
	Long Beach, CA 90803
	Los Angeles County
Facility Contact, Title, and Phone	Katherine Rubin, Manager of Wastewater Quality Compliance (213) 367-0436
Mailing Address	111 North Hope Street, Rm 1213 Los Angeles, CA 90012
Type of Facility	Petroleum Bulk Station and Terminal (SIC 5171)
Facility Design Flow	420,000 gallons per day (gpd)-Discharge Point No. 001[1] 220,000 gpd-Discharge Point No. 002[1] 590,000 gpd Discharge Point No. 003[1] 715,000 gpd Discharge Point No. 004[1]

[1] Average flows calculated as runoff based on a 10-year/24-hour storm.

II. FINDINGS

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

A. **Background.** Los Angeles Department of Water and Power (LADWP) (hereinafter Discharger) is currently discharging pursuant to Order No. R4-2006-0054 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0057649. The Regional Water Board issued Time Schedule Order No. R4-2006-0055 which established interim effluent limitations and a time schedule for the Discharger to comply with final effluent limitations for several CTR constituents by May 10, 2010. The Discharger submitted a Report of Waste Discharge, dated November 8, 2010, and applied for an NPDES permit renewal to discharge up to 420,000 gallons per day (gpd) (Discharge Point No. 001), 220,000 gpd (Discharge Point No. 002), 590,000 gpd (Discharge Point No. 003), 715,000 gpd (Discharge Point No. 004) from the Haynes Tank Farm Tanks A-J, hereinafter, Facility. The application was deemed complete on November 8, 2010**.**

For the purposes of this Order, references to the "Discharger" or "Permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. **Facility Description**. LADWP owns and operates the Haynes Tank Farm Tanks A-J, located at 6801 East Second Street, Long Beach, California. Tank A is currently being used for the storage of No. 2 diesel fuel. Tanks D and E are empty and clean. Tanks A-D are enclosed by a compacted earthen berm. The berm was constructed when Tanks A-D were used to store diesel fuel, to provide secondary containment in the event of an oil spill. Tank E is enclosed by a compacted earthen berm. The berm was constructed when Tank E was used to store diesel fuel, to provide secondary containment in the event of a spill.

Tank B is being used as a settling tank that stores storm water that has collected in the bermed containment areas around Tanks A-D and Tank E, respectively. The storm water settles and is then released to percolate/evaporate in the containment area for Tanks A-D. Tank C is being repaired. Upon completion of the repairs, Tank C will also be used as a settling tank for storm water that collects in the bermed containment areas around Tanks A-D and Tank E.

Tanks F through J and their containment berms have been demolished and the entire area graded. All soil remediation took place in July and August of 2011. All stormwater-related equipment that was used for Tanks F through J remains in place. Storwater from the area formerly occupied by Tanks F through J was directed to one of four oil/water separators that directly precede each discharge point. The oil/water separators consists of four stages and are used to recover oil and grease that is vacuumed out and disposed of at a legal disposal site. Discharges from oil/water separators flow by gravity to the Los Alamitos Channel, also referred to as the Orange

County Flood Control Channel. The four discharge points and permitted flow rates are identified in Table 5.

Stormwater that collects in the bermed containment areas around Tanks A-D and Tank E is directed to Tank B, where it settles. After settling, the stormwater is discharged into the bermed containment area for Tanks A-D, where it is left to percolate and /or evaporate.

Table 5. Storm Water Flows at Facility Tank Farms

Tank Area	Discharge Point No.	Storm Water Runoff Discharge Flow Rate (gpd)
Tanks A,B,C, and D	001	420,000
Tank E	002	220,000
Former Tanks F and G	003	590,000
Former Tanks H and J	004	715,000

The Haynes Tank Farm freshwater storm water discharge commingles with other freshwater storm water discharges, from point and non-point local sources, within the Los Alamitos Channel (also called the "Orange County Flood Control Channel, or OCFCC"), a freshwater environment, which enters the Los Alamitos Retarding Basin (LARB), operated by the Orange County Flood Control District (OCFCD). Here the discharge again commingles with other storm water discharges from local sources. The LARB is located less than 1 mile south of the Haynes Tank Farm discharge points. The OCFCD operates multiple pumps, including the Los Alamitos Pump Station, to pump storm water from the LARB to the San Gabriel River Estuary, a water of the United States. One sump pump accommodates low flow into the LARB and operates 24 hours a day, 7 days per week to produce a continuous discharge to the SGRE. Preset water levels within the basin activate additional pumps to accommodate higher inflows. This Order covers only storm water discharges from the tank farm areas as described. LADWP tests the Tank Farm fire protection system annually; however, due to the small volume, the fire system test water is left to evaporate or percolate into the soil in the tank containment area. Storm water discharges and the fire protection system tests do not occur at the same time.

Attachment B depicts a topographic map of the area around the Facility. Attachment C depicts the schematic diagram of the wastewater flow.

This Order covers only storm water discharges from the tank farm areas as described.

C. **Legal Authorities.** This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

D. **Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E and G through I are also incorporated into this Order.

E. **California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100-21177.

F. **Technology-based Effluent Limitations.** Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations[1], require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with Part 125, section 125.3. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

G. **Water Quality-Based Effluent Limitations.** Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

H. **Watershed Management Approach and Total Maximum Daily Loads (TMDLs)**

The Regional Water 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 Water Board's

[1] All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

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.

Certain receiving waters in the Los Angeles watershed do not fully support beneficial uses and therefore have been classified as impaired on the 2010 303(d) list and have been scheduled for TMDL development. The USEPA partially approved the State's 2010 303(d) list of impaired water bodies on November 12, 2010. The approved portion of the 2010 State Water Resources Control Board (State Water Board) California 303(d) List includes the classification of the San Gabriel River Estuary, to which Los Alamitos Channel is tributary, as impaired due to copper, dioxin, nickel, and dissolved oxygen. For dioxin, nickel, and dissolved oxygen, TMDL development is scheduled for 2021.

The USEPA developed the *TMDL for Metals and Selenium, San Gabriel River and Impaired Tributaries, March 26, 2007* (March, 2007), hereinafter referred to as the Metals TMDL. On July 13, 2006, the Regional Water Board approved the Metals TMDL, incorporating it into the *Water Quality Control Plan for the Los Angeles Region* (hereinafter Basin Plan). The Metals TMDL does not include WLAs applicable to individual industrial permittees that discharge to the Los Alamitos Channel; therefore no effluent limitations based on the Metals TMDL are included in this Order.

I. **Water Quality Control Plans.** The Regional Water Board adopted the Basin Plan on June 13, 1994, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which established State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply.

The Basin Plan does not currently assign beneficial uses specific to the Los Alamitos Channel. Federal regulations that address state water quality standards are contained in 40 CFR 131.2 and 131.10 and constitute a rebuttable presumption that beneficial uses supporting the "*fishable, swimmable*" goals of the federal CWA are attainable. Therefore, without evidence to disprove attainability, recreation and aquatic life beneficial uses apply to the Los Alamitos Channel. The Basin Plan states that "*waters not specifically listed (generally, smaller tributaries), are designated with the same beneficial uses as the streams, lakes, or reservoirs to which they are tributary.*" Because the discharge flows a relatively short distance (less than 1 mile) to the San Gabriel River Estuary, the Regional Water Board finds that the beneficial uses identified in the Basin Plan for the San Gabriel River Estuary are applicable to the Los Alamitos

Channel. Furthermore, these beneficial uses support the "*fishable, swimmable*" goals of the CWA. Beneficial uses identified in the Basin Plan for the San Gabriel River Estuary, are as follows:

Table 6. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001, 002, 003, and 004	Los Alamitos Channel tributary to the San Gabriel River Estuary	Existing: Industrial service supply (IND); navigation (NAV); water contact recreation (REC1); non-contact water recreation (REC2); commercial and sport fishing (COMM); estuarine habitat, (EST); marine habitat (MAR); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); migration of aquatic organisms (MIGR); spawning, reproduction, and/or early development (SPWN) Potential: Shellfish harvesting (SHELL)

Requirements of this Order implement the Basin Plan.

Enclosed Bays and Estuaries Policy. The Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Enclosed Bay and Estuaries Policy), adopted by the State Water Resources Control Board (State Board) as Resolution No. 95-84 on November 16, 1995, states that:

> "It is the policy of the State Board that the discharge of municipal wastewaters and industrial process waters (exclusive of cooling water discharges) to enclosed bays and estuaries, other than the San Francisco Bay-Delta system, shall be phased out at the earliest practicable date. Exceptions to this provision may be granted by a Regional Board only when the Regional Board finds that the wastewater in question would consistently be treated and discharged in such a manner that it would enhance the quality of receiving waters above that which would occur in the absence of the discharge."

While the Facility discharges to the Los Alamitos Channel, to the Los Alamitos Retarding Basin, and subsequently to the San Gabriel River Estuary, the wastewater is comprised primarily of storm water runoff and therefore is not considered to be industrial process wastewater. Nonetheless, this Order contains provisions necessary to protect all beneficial uses of the receiving water.

J. **Thermal Plan.** The State Water Board adopted the *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 and coastal surface waters. Requirements of this Order implement the Thermal Plan.

K. **Ammonia Basin Plan Amendment.** The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Table 3-1 through Table 3-4. However, those ammonia objectives were revised on March 4, 2004, by the Regional Water Board with the adoption of Resolution No. 2004-022, *Amendment to the Water Quality Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (including enclosed bays, estuaries and wetlands)* with the Beneficial Use designations for protection of "Aquatic Life". The ammonia Basin Plan amendment was approved by the Office of Administrative Law on September 14, 2004, and by USEPA on May 19, 2005. The amendment revised the Basin Plan by updating the ammonia objectives for inland surface waters not characteristic of freshwater such that they are consistent with the USEPA "Ambient Water Quality Criteria for Ammonia (Saltwater) – 1989." The amendment revised the regulatory provisions of the Basin Plan by adding language to Chapter 3, "Water Quality Objectives."

The amendment contains objectives for a 4-day average concentration of un-ionized ammonia of 0.035 mg/L, and a 1-hour average concentration of un-ionized ammonia of 0.233 mg/L. These objectives are fixed concentrations of un-ionized ammonia, independent of pH, temperature, or salinity. The amendment also contains an implementation procedure to convert un-ionized ammonia objectives to total ammonia effluent limitations.

L. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

M. **State Implementation Policy.** On March 2, 2000, the State Water 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 became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

N. **Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a Discharger's request and demonstration that it is infeasible for an existing Discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. The SIP further stipulates that unless an exception has been granted under section 5.3 of

the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. The SIP provision has expired, thus no compliance schedules are included in this Order.

O. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 CFR. § 131.21; 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

P. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions total petroleum hydrocarbons (TPH), turbidity, total suspended solids (TSS), oil and grease, biochemical oxygen demand (5-day @ 20 deg. C) (BOD), settleable solids, and phenol. Restrictions on these constituents are discussed in IV.B of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

The WQBELs consist of restrictions on arsenic, chromium (VI), copper, lead, nickel, zinc, cyanide, beta-BHC, chlordane, 4,4'-DDT, and polychlorinated biphenyls (PCBs). WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). The remaining water quality objectives and beneficial uses implemented by this Order (specifically ammonia) were approved by USEPA on September 25, 2002, and March 30, 2009, respectively. Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Q. **Antidegradation Policy**. Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16

requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

R. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. With the exception of effluent limitations for metals identified in Table F-10 of the Fact Sheet, all effluent limitations are as stringent as in the previous Order. The less stringent limitations for metals resulted from recalculations based on new information pertaining to receiving water salinity. Under 40 CFR 122.4(l)(2)(i)(B)(1), less stringent limitations are allowed if based on new information that was not available at the time of permit issuance that would have justified a less stringent limitation.

Under 40 CFR 122.44(l)(2)(i)(B)(2) less stringent limitations are allowable when correcting technical mistakes or mistaken interpretations of law. Effluent limitations for beta-BHC are less stringent as a result of rounding the previously calculated limitations to the correct number of significant figures.

S. **Endangered Species Act.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

T. **Monitoring and Reporting.** Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

U. **Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.

V. **Provisions and Requirements Implementing State Law.** The provisions/requirements in subsection VI.C of this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

W. **Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.

X. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

THEREFORE, IT IS HEREBY ORDERED, that this Order supercedes Order No. R4-2006-054 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

A. Wastes discharged shall be limited to a maximum of 420,000 gpd of treated storm water from Discharge Point No. 001; 220,000 gpd of treated storm water from Discharge Point No. 002; 590,000 gpd. of treated storm water from Discharge Point No. 003; and 715,000 gpd of treated storm water from Discharge Point No. 004, as described in the findings. The discharge of wastes from accidental spills or other sources is prohibited.

B. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to the Los Alamitos Channel and subsequently to the San Gabriel River Estuary, or other waters of the State, are prohibited.

C. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or a nuisance as defined by Section 13050 of the Water Code.

D. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.

E. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or the State Water Board as required by the Federal CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Federal CWA, and amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.

F. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

G. Any discharge of wastes at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations-Discharge Point Nos. 001, 002, 003, and 004

1. Final Effluent Limitations-Discharge Point No. 001

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001, as described in the attached MRP (Attachment E):

Table 7. Effluent Limitations for Discharge Point No. 001

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
pH	s.u.	--	--	6.5	8.5
Biochemical Oxygen Demand (5-day @ 20 deg. C) (BOD)	mg/L	--	30	--	--
	lbs/day[1]	--	105.1	--	--
Oil and Grease	mg/L	--	15	--	--
	lbs/day[1]	--	52.5	--	--
Total Suspended Solids (TSS)	mg/L	--	75	--	--
	lbs/day[1]	--	263	--	--
Non-Conventional Pollutants					
Temperature	°F	--	--	--	86
Phenol	µg/L	--	1,000	--	--
	lbs/day[1]	--	3.5	--	--
Settleable Solids	ml/L	--	0.3	--	--
Total Petroleum Hydrocarbons (TPH)[2]	µg/L	--	100	--	--
	lbs/day[1]	--	0.35	--	--
Turbidity	NTU	--	75	--	--
Priority Pollutants					
Copper, Total Recoverable	µg/L	--	50	--	--
	lbs/day[1]	--	0.18	--	--
Lead, Total Recoverable	µg/L	--	31	--	--
	lbs/day[1]	--	0.11	--	--

[1] The mass limitations are based on a maximum flow of 420,000 gpd (0.420 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

[2] TPH equals the sum of TPH(C_4-C_{12}), TPH(C_{13}-C_{22}), and TPH(C_{23+}).

b. **Acute Toxicity.** There shall be no acute toxicity in the discharge. 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 test shall be at least 90%, and

ii. No single test producing less than 70% survival.

Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E)

2. Final Effluent Limitations-Discharge Point No. 002

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 002, with compliance measured at Monitoring Location EFF-002 as described in the attached MRP (Attachment E):

Table 8. Effluent Limitations for Discharge Point No. 002

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
pH	s.u.	--	--	6.5	8.5
BOD	mg/L	--	30	--	--
	lbs/day[1]	--	55	--	--
Oil and Grease	mg/L	--	15	--	--
	lbs/day[1]	--	28	--	--
TSS	mg/L	--	75	--	--
	lbs/day[1]	--	138	--	--
Non-Conventional Pollutants					
Temperature	°F	--	--	--	86
Phenol	µg/L	--	1,000	--	--
	lbs/day[1]	--	1.83	--	--
Settleable Solids	ml/L	--	0.3	--	--
TPH[2]	µg/L	--	100	--	--
	lbs/day[1]	--	0.183	--	--
Turbidity	NTU	--	75	--	--
Priority Pollutants					
Chromium (VI), Total Recoverable	µg/L	--	16	--	--
	lbs/day[1]	--	0.029	--	--
Copper, Total Recoverable	µg/L	--	50	--	--
	lbs/day[1]	--	0.092	--	--

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Lead, Total Recoverable	µg/L	--	31	--	--
	lbs/day[1]	--	0.057	--	--
Nickel, Total Recoverable	µg/L	--	277	--	--
	lbs/day[1]	--	0.51	--	--
Zinc, Total Recoverable	µg/L	--	388	--	--
	lbs/day[1]	--	0.71	--	--
Cyanide	µg/L	--	8.5	--	--
	lbs/day[1]	--	0.016	--	--
Beta-BHC	µg/L	--	0.092	--	--
	lbs/day[1]	--	0.00017	--	--
Chlordane	µg/L	--	0.0011	--	--
	lbs/day[1]	--	0.0000020	--	--
4,4'-DDT	µg/L	--	0.0012	--	--
	lbs/day[1]	--	0.0000022	--	--
Polychlorinated Biphenyls (PCBs)[3]	µg/L	--	0.00034	--	--
	lbs/day[1]	--	0.00000062	--	--

[1] The mass limitations are based on a maximum flow of 220,000 gpd (0.220 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

[2] TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH oil (C_{23+})

[3] PCBs shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

b. **Acute Toxicity.** There shall be no acute toxicity in the effluent. 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 test shall be at least 90%, and

ii. No single test shall produce less than 70% survival.

Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E).

3. Final Effluent Limitations – Discharge Point No. 003

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 003, with compliance measured at Monitoring Location EFF-003 as described in the attached MRP (Attachment E)

Table 9. Effluent Limitations for Discharge Point No. 003

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
pH	s.u.	--	--	6.5	8.5
BOD	mg/L	--	30	--	--
	lbs/day[1]	--	148	--	--
Oil and Grease	mg/L	--	15	--	--
	lbs/day[1]	--	74	--	--
TSS	mg/L	--	75	--	--
	lbs/day[1]	--	369	--	--
Non-Conventional Pollutants					
Temperature	°F	--	--	--	86
Phenol	µg/L	--	1,000	--	--
	lbs/day[1]	--	4.92	--	--
Settleable Solids	ml/L	--	0.3	--	--
TPH[2]	µg/L	--	100	--	--
	lbs/day[1]	--	0.492	--	--
Turbidity	NTU	--	75	--	--
Priority Pollutants					
Copper, Total Recoverable	µg/L	--	50	--	--
	lbs/day[1]	--	0.25	--	--
Cyanide, Total (as CN)	µg/L	--	8.5	--	--
	lbs/day[1]	--	0.042	--	--

1. The mass limitations are based on a maximum flow of 590,000 gpd (0.590 MGD) and is calculated as Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
2. TPH equals the sum of TPH gasoline (C4-C12), TPH diesel (C13-C22), and TPH oil (C23+).

b. **Acute Toxicity.** There shall be no acute toxicity in the effluent. 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 test shall be at least 90%, and

ii. No single test shall produce less than 70% survival.

Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E).

4. Final Effluent Limitations – Discharge Point No. 004

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 004, with compliance measured at Monitoring Location EFF-004 as described in the attached MRP (Attachment E)

Table 10. Effluent Limitations for Discharge Point No. 004

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
pH	s.u.	--	--	6.5	8.5
BOD	mg/L	--	30	--	--
	lbs/day[1]	--	179	--	--
Oil and Grease	mg/L	--	15	--	--
	lbs/day[1]	--	89.4	--	--
TSS	mg/L	--	75	--	--
	lbs/day[1]	--	447	--	--
Non-Conventional Pollutants					
Temperature	°F	--	--	--	86
Phenol	µg/L	--	1,000	--	--
	lbs/day[1]	--	6.0	--	--
Settleable Solids	ml/L	--	0.3	--	--
TPH[2]	µg/L	--	100	--	--
	lbs/day[1]	--	0.60	--	--
Turbidity	NTU	--	75	--	--
Acute Toxicity	% Survival	[3]			
Priority Pollutants					
Copper, Total Recoverable	µg/L	--	50	--	--
	lbs/day[1]	--	0.30	--	--
Lead, Total Recoverable	µg/L	--	31	--	--
	lbs/day[1]	--	0.18	--	--
Selenium, Total Recoverable	µg/L	--	8.2	--	--
	lbs/day[1]	--	0.049	--	--
Zinc, Total Recoverable	µg/L	--	388	--	--
	lbs/day[1]	--	2.3	--	--

1. The mass limitations are based on a maximum flow of 715,000 gpd (0.715 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
2. TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH oil (C_{23+}).

b. **Acute Toxicity.** There shall be no acute toxicity in the effluent. 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 test shall be at least 90%, and

ii. No single test producing less than 70% survival.

Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E).

5. Interim Effluent Limitations

Not Applicable

B. **Land Discharge Specifications**

Not Applicable

C. **Reclamation Specifications**

Not Applicable

V. RECEIVING WATER LIMITATIONS

A. **Surface Water Limitation**

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in the Los Alamitos Channel.

1. The normal ambient pH to fall below 6.5 nor exceed 8.5 units nor vary from normal ambient pH levels by more than 0.5 units.

2. Surface water temperature to rise greater than 5^{o}F above the natural temperature of the receiving waters at any time or place. At no time the temperature be raised above 80^{0} F as a result of waste discharged.

3. State/Regional Water Board Water Contact Standards

In marine water designated for Water Contact Recreation (REC-1), the waste discharged shall not cause the following bacterial standards to be exceeded in the receiving water:

a. Geometric Means Limits

i. E. Coli density shall not exceed 126/100 ml.

ii. Fecal coliform density shall not exceed 200/100 ml.

b. Single Sample Maximum (SSM)

i. E. Coli density shall not exceed 235/100 ml.

ii. Fecal coliform density shall not exceed 400/100 ml.

4. Depress the concentration of dissolved oxygen to fall below 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.

5. Exceed total ammonia (as N) concentrations specified in the Regional Water Board Resolution No. 2002-011. Resolution No. 2002-011 revised the ammonia water quality objectives for inland surface waters to be consistent with USEPA's *"Ambient Water Quality Criteria for Ammonia",* December 1999. Adopted on April 25, 2002, Resolution No. 2002-011 was approved by State Water Board, Office of Administrative Law (OAL) and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively and is now in effect.

6. The presence of visible, floating, suspended or deposited macroscopic particulate matter or foam.

7. 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.

8. Suspended or settleable materials, chemical substances or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use.

9. Toxic or other deleterious substances 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.

10. Accumulation of bottom deposits or aquatic growths.

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

12. The presence of substances that result in increases of BOD that adversely affect beneficial uses.

13. 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.

14. Alteration of turbidity, or apparent color beyond present natural background levels.

15. Damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload the design capacity.

16. Degrade surface water communities and populations including vertebrate, invertebrate, and plant species.

17. Problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.

18. Create nuisance, or adversely affect beneficial uses of the receiving water.

19. Violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or State Water Board. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, the Regional Water Board will revise or modify this Order in accordance with such standards.

B. **Groundwater Limitations**

Not Applicable

VI. PROVISIONS

A. **Standard Provisions**

1. Federal Standard Provisions. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order**.**

2. Regional Water Board Standard Provisions. The Discharger shall comply with the following provisions**:**

a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 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.

b. 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 Water Board to local agencies.

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

d. 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, 318, 405, and 423 of the Federal CWA and amendments thereto.

e. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

f. Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.

g. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.

h. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

   i. Violation of any term or condition contained in this Order;

   ii. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;

   iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

i. If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

j. The Discharger shall notify the Regional Water Board not later than 120 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge appropriate filing fee.

k. The Discharger shall file with the Regional Water Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.

l. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Water Board as soon as they know or have reason to believe that they have begun or expect to begin to use or manufacture intermediate or

final product or byproduct of any toxic pollutant that was not reported on their application.

m. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify this Regional Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Regional Water Board.

n. The Water Code provides that any person who violates a waste discharge requirement or a provision of the Water Code is subject to civil penalties of up to $5,000 per day, $10,000 per day, or $25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to $10 per gallon per day or $25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

   Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

o. 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.

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

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

   i. Name and general composition of the chemical,

   ii. Frequency of use,

   iii. Quantities to be used,

   iv. Proposed discharge concentrations, and

   v. USEPA registration number, if applicable.

r. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties,

and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

s. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, AMEL, MDEL, instantaneous, or receiving water limitation of this Order, the Discharger shall notify the Regional Water Board by telephone (216)-576-6600 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

t. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. (Wat. Code § 1211.)

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order.

C. Special Provisions

1. Reopener Provisions

a. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, and amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.

b. 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 reasonable potential analysis.

c. 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 or 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 Gabriel River Estuary or tributaries thereto.

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

f. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data

2. **Special Studies, Technical Reports and Additional Monitoring Requirements**

a. **Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.** The Discharger shall submit to the Regional Water Board an Initial Investigation TRE workplan (1-2 pages) **within 90 days** of the effective date of this permit. This plan shall describe the steps the permittee intends to follow in the event that toxicity is detected, and should include at a minimum:

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

ii. A description of the facility's method of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility;

iii. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor) (section V of the MRP, Attachment E) provides references for the guidance manuals that should be used for performing TIEs).

3. **Storm Water Pollution Prevention Plan, Best Management Practices, and Spill Prevention Control and Countermeasures Plan**

The Discharger shall submit to the Regional Water Board, within **90 days** of the effective date of this Order:

a. An updated Storm Water Pollution Prevention Plan (SWPPP) that describes site specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State. The SWPPP shall address the following specific areas of concern: petroleum storage tanks, equipment washing, vehicle traffic, chemical storage, or other industrial activity with the potential to impact water quality. The SWPPP shall be developed in accordance with the requirements in Attachment G

The SWPPP shall also specify Best Management Practices (BMPs) that will be implemented to reduce the discharge of pollutants in storm water. In particular, the Discharger shall focus on improving secondary containment and good housekeeping practices. Further, the Discharger shall assure that the storm water discharges from the facility would neither cause, nor contribute to the exceedance of water quality standards and objectives, nor create conditions of nuisance in the receiving water, and that the unauthorized discharges (i.e., spills, dry weather discharge) to the receiving water have been effectively prohibited

b. An updated Spill Prevention Control and Countermeasure (SPCC) Plan that shall be site-specific and shall cover all areas of the Facility including the tank farm. The SPCC shall describe the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events.

Plans shall cover all areas of the Facility 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 (e.g., petroleum storage tanks); describe the activities in each area and the potential for contamination of storm water runoff and the discharge of hazardous waste/material.

The Discharger shall implement the SWPPP and SPCC Plan within 10 days of the approval by the Executive Officer or no later than 90 days after submission to the Regional Water Board, whichever comes first. The SWPPP shall be reviewed annually and the SPCC shall be reviewed once every five years. Updated information shall be submitted to the Regional Water Board within 30 days of revision.

4. **Construction, Operation and Maintenance Specifications**

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

5. **Special Provisions for Municipal Facilities (POTWs Only)**

   Not Applicable

6. **Other Special Provisions**

   Not Applicable

7. **Compliance Schedules**

   Not Applicable

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. 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 I.G. of the MRP), then the Discharger is out of compliance.

B. **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.

C. **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

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

2. 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.

D. **Mass-based Effluent Limitations.**

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 Limitations and Discharge Requirements, Section VII.B, 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.

E. **Multiple Sample Data.**

When determining compliance with an AMEL or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an

even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

F. **Average Monthly Effluent Limitation (AMEL).**

If the average (or when applicable, the median determined by subsection E above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

In determining compliance with the AMEL, the following provisions shall also apply to all constituents:

1. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for that constituent, the Discharger has demonstrated compliance with the AMEL for that month;

2. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL 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 I.G. of the 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 I.G. of the 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.

3. In the event of noncompliance with an AMEL, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the AMEL has been demonstrated.

4. If only one sample was obtained for the month or more than a monthly period and the result exceeds the AMEL, then the Discharger is in violation of the AMEL.

G. **Maximum Daily Effluent Limitations (MDEL).**

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

H. **Instantaneous Minimum Effluent Limitation.**

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

I. **Instantaneous Maximum Effluent Limitation.**

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ)
Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL)
The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Best Management Practices (BMPs)
BMPs are methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and nonpoint source discharges including storm water. BMPs include structural and non-structural control, and operation maintenance procedures, which can be applied before, during, and/or after pollution-producing activities.

Bioaccumulative
Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic
Pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV)
CV is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Daily Discharge
Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ)
DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Dilution Credit
Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Effluent Concentration Allowance (ECA)
ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays
Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration
The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries
Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Existing Discharger
Any discharger that is not a new discharger. An existing discharger includes an "increasing discharger" (i.e., any existing facility with treatment systems in place for its current discharge that is or will be expanding, upgrading, or modifying its permitted discharge after the effective date of this Order).

Inland Surface Waters
All surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation
The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation
The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Maximum Daily Effluent Limitation (MDEL)
The highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median
The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Method Detection Limit (MDL)
MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML)
ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Mixing Zone
Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Not Detected (ND)
Sample results which are less than the laboratory's MDL.

Ocean Waters
The territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

Persistent Pollutants
Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program (PMP)
PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be 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 water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention
Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Board.

Reporting Level (RL)
RL is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Satellite Collection System
The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Source of Drinking Water
Any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

Standard Deviation (σ)
Standard Deviation is a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:
x is the observed value;
μ is the arithmetic mean of the observed values; and
n is the number of samples.

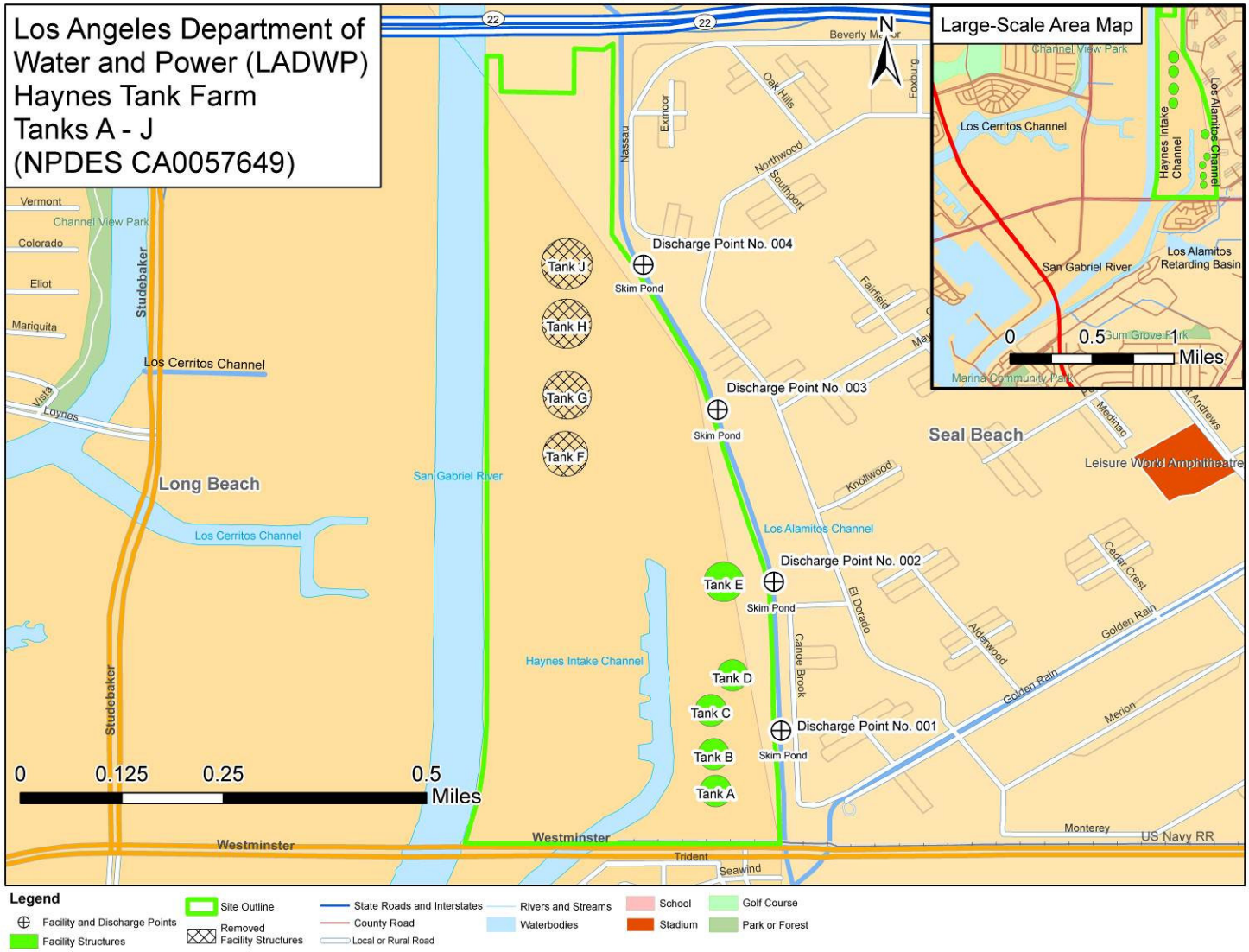
Toxicity Reduction Evaluation (TRE)
TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

ACRONYMS AND ABBREVIATIONS

AMEL	Average Monthly Effluent Limitation
B	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	*Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-day @ 20 ℃
BPT	Best Practicable Treatment Control Technology
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
Discharger	Los Angeles Department of Water and Power
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Health Services Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Facility	Haynes Tank Farm, Tanks A-J
gpd	gallons per day
IC	Inhibition Coefficient
IC_{15}	Concentration at which the organism is 15% inhibited
IC_{25}	Concentration at which the organism is 25% inhibited
IC_{40}	Concentration at which the organism is 40% inhibited
IC_{50}	Concentration at which the organism is 50% inhibited
LA	Load Allocations
LOEC	Lowest Observed Effect Concentration
µg/L	micrograms per Liter
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MEC	Maximum Effluent Concentration
MGD	Million Gallons Per Day
ML	Minimum Level
MRP	Monitoring and Reporting Program
ND	Not Detected
NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards

NTR	National Toxics Rule
OAL	Office of Administrative Law
PMEL	Proposed Maximum Daily Effluent Limitation
PMP	Pollutant Minimization Plan
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
Ocean Plan	*Water Quality Control Plan for Ocean Waters of California*
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
RPA	Reasonable Potential Analysis
SIP	State Implementation Policy (*Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California)*
SMR	Self Monitoring Reports
SPCC	Spill Prevention Control and Countermeasure
State Water Board	California State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	Test Acceptability Criteria
Thermal Plan	*Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California*
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TRE	Toxicity Reduction Evaluation
TSD	Technical Support Document
TSS	Total Suspended Solid
TU_c	Chronic Toxicity Unit
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WLA	Waste Load Allocations
WQBELs	Water Quality-Based Effluent Limitations
WQS	Water Quality Standards
%	Percent

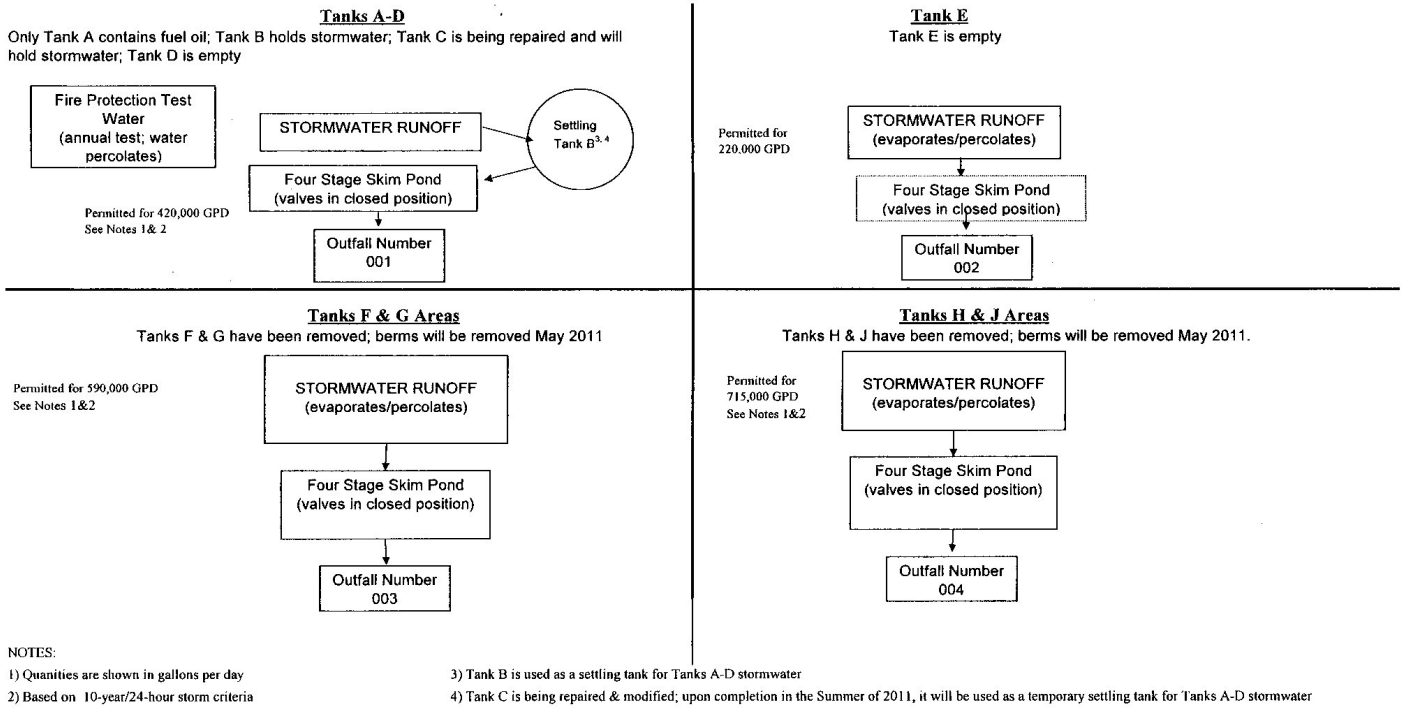
ATTACHMENT B – MAP



ATTACHMENT C – FLOW SCHEMATIC

Attachment 1

Haynes Tank Farm
Tank Farm Wastewater Flow Schematic
Tanks A-D, E, F-G, H-J



NOTES:

1) Quanities are shown in gallons per day
2) Based on 10-year/24-hour storm criteria
3) Tank B is used as a settling tank for Tanks A-D stormwater
4) Tank C is being repaired & modified; upon completion in the Summer of 2011, it will be used as a temporary settling tank for Tanks A-D stormwater

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application [section 122.41(a)].

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement [section 122.41(a)(1)].

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order [section 122.41(c)].

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment [section 122.41(d)].

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order [section 122.41(e)].

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges [section 122.41(g)].

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations [section 122.5(c)].

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [section 122.41(i)] [Water Code section 13383]:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [section 122.41(i)(1)];

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [section 122.41(i)(2)];

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [section 122.41(i)(3)]; and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location [section 122.41(i)(4)].

G. Bypass

1. Definitions

   a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility [section 122.41(m)(1)(i)].

   b. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production [section 122.41(m)(1)(ii)].

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below [section 122.41(m)(2)].

3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless [section 122.41(m)(4)(i)]:

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [section 122.41(m)(4)(i)(A)];

   c. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [section 122.41(m)(4)(i)(B)]; and

   d. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below [section 122.41(m)(4)(i)(C)].

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above [section 122.41(m)(4)(ii)].

5. Notice

   a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass [section 122.41(m)(3)(i)].

   b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice) [section 122.41(m)(3)(ii)].

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [section 122.41(n)(1)].

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [section 122.41(n)(2)].

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [section 122.41(n)(3)]:

   a. An upset occurred and that the Discharger can identify the cause(s) of the upset [section 122.41(n)(3)(i)];

   b. The permitted facility was, at the time, being properly operated [section 122.41(n)(3)(ii)];

   c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) [section 122.41(n)(3)(iii)]; and

   d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above [section 122.41(n)(3)(iv)].

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [section 122.41(n)(4)].

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition [section 122.41(f)].

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit [section 122.41(b)].

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code [section 122.41(l)(3) and section 122.61].

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [section 122.41(j)(1)].

B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order [section 122.41(j)(4) and section 122.44(i)(1)(iv)].

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time [section 122.41(j)(2)].

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements [section 122.41(j)(3)(i)];
2. The individual(s) who performed the sampling or measurements [section 122.41(j)(3)(ii)];
3. The date(s) analyses were performed [section 122.41(j)(3)(iii)];
4. The individual(s) who performed the analyses [section 122.41(j)(3)(iv)];
5. The analytical techniques or methods used [section 122.41(j)(3)(v)]; and
6. The results of such analyses [section 122.41(j)(3)(vi)].

C. **Claims of confidentiality for the following information will be denied [section 122.7(b)]:**

1. The name and address of any permit applicant or Discharger [section 122.7(b)(1)]; and
2. Permit applications and attachments, permits and effluent data [section 122.7(b)(2)].

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance

with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order [section 122.41(h)] [Water Code section 13267].

B. **Signatory and Certification Requirement**s

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below [section 122.41(k)].

2. All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. [section 122.22(a)(1)].

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above [section 122.22(b)(1)];

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) [section 122.22(b)(2)]; and

c. The written authorization is submitted to the Regional Water Board and State Water Board [section 122.22(b)(3)].

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall

operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative [section 122.22(c)].

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." [section 122.22(d)].

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order [section 122.22(l)(4)].

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices [section 122.41(l)(4)(i)].

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board [section 122.41(l)(4)(ii)].

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order [section 122.41(l)(4)(iii)].

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date [section 122.41(l)(5)].

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time

the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [section 122.41(l)(6)(i)].

2. The following shall be included as information that must be reported within 24 hours under this paragraph [section 122.41(l)(6)(ii)]:

   a. Any unanticipated bypass that exceeds any effluent limitation in this Order [section 122.41(l)(6)(ii)(A)].

   b. Any upset that exceeds any effluent limitation in this Order [section 122.41(l)(6)(ii)(B)].

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [section 122.41(l)(6)(iii)].

F. **Planned Changes**

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [section 122.41(l)(1)]:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) [section 122.41(l)(1)(i)]; or.

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order [section 122.41(l)(1)(ii)].

   The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1) [section 122.41(l)(1)(ii)].

G. **Anticipated Noncompliance**

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements [section 122.41(l)(2)].

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above [section 122.41(l)(7)].

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information [section 122.41(l)(8)].

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

B. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to

$2,000,000 for second or subsequent convictions [*section 122.41(a)(2)*] [*Water Code sections 13385 and 13387*].

C. Any person may be assessed an administrative penalty by the Regional Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000 [*section 122.41(a)(3)*].

D. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both [*section 122.41(j)(5)*].

E. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both [*section 122.41(k)(2)*].

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Water Board as soon as they know or have reason to believe [section 122.42(a)]:

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [section 122.42(a)(1)]:

   a. 100 micrograms per liter (µg/L) [section 122.42(a)(1)(i)];

   b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [section 122.42(a)(1)(ii)];

   c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [section 122.42(a)(1)(iii)]; or

d. The level established by the Regional Water Board in accordance with section 122.44(f) [section 122.42(a)(1)(iv)].

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels" [section 122.42(a)(2)]:

   a. 500 micrograms per liter (µg/L) [section 122.42(a)(2)(i)];

   b. 1 milligram per liter (mg/L) for antimony [section 122.42(a)(2)(ii)];

   c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [section 122.42(a)(2)(iii)]; or

   d. The level established by the Regional Water Board in accordance with section 122.44(f) [section 122.42(a)(2)(iv)].

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP NO. 6208)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) NO. 6208

The Code of Federal Regulations section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. Water Code Sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. Effluent sampling stations shall be established for Discharge Point No. 001, Discharge Point No. 002, Discharge Point No. 003, and Discharge Point No. 004 and shall be located where representative samples of that effluent can be obtained.

B. Effluent samples shall be taken downstream of any addition to treatment works and prior to mixing with the receiving waters.

C. The Regional Water Board shall be notified in writing of any change in the sampling stations once established or in the methods for determining the quantities of pollutants in the individual waste streams.

D. Pollutants shall be analyzed using the analytical methods described in sections 136.3, 136.4, and 136.5 (revised March 12, 2007); or, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Public Health Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.

E. For any analyses performed for which no procedure is specified in the United States Environmental Protection Agency (USEPA) guidelines or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.

F. Each monitoring report must affirm in writing that “all analyses were conducted at a laboratory certified for such analyses by the Department of Public Health or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this MRP”.

G. The monitoring reports shall specify the analytical method used, the Method Detection Limit (MDL), and the Minimum Level (ML) for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported by one of the following methods, as appropriate:

1. An actual numerical value for sample results greater than or equal to the ML; or

2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML; or,

3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

Analytical data reported as "less than" for the purpose of reporting compliance with permit limitations shall be the same or lower than the permit limit(s) established for the given parameter.

Current MLs (Attachment H) are those published by the State Water Board in the Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, February 24, 2005.

H. Where possible, the MLs employed for effluent analyses shall be lower than the permit limitations established for a given parameter. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

The Regional Water Board, in consultation with the State Water Board Quality Assurance Program, shall establish a ML that is not contained in Attachment H to be included in the Discharger's permit in any of the following situations:

1. When the pollutant under consideration is not included in Attachment H;

2. When the Discharger and Regional Water Board agree to include in the permit a test method that is more sensitive than that specified in 40 CFR Part 136 (revised March 12, 2007);

3. When the Discharger agrees to use an ML that is lower than that listed in Attachment H;

4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment H, and proposes an appropriate ML for their matrix; or,

5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

I. Water/wastewater samples must be analyzed within allowable holding time limits as specified in section 136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Regional Water Board format, when it becomes available, and submitted with the laboratory reports. Proper chain of custody procedures must be followed, and a copy of the chain of custody shall be submitted with the report.

J. All analyses shall be accompanied by the chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.

K. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.

L. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. The annual monitoring report required in section X.D shall also summarize the QA activities for the previous year. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per sampling period, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples.

M. When requested by the Regional Water Board or USEPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study. The Discharger must have a success rate equal to or greater than 80%.

N. For parameters that both average monthly and daily maximum limits are specified and the monitoring frequency is less than four times a month, the following shall apply. If an analytical result is greater than the average monthly limit, the Discharger shall collect four additional samples at approximately equal intervals during the month, until compliance with the average monthly limit has been demonstrated. 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. In the event of noncompliance with an average monthly effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the average monthly effluent limitation has been demonstrated. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the average monthly limit.

O. In the event wastes are transported to a different disposal site during the report period, the following shall be reported in the monitoring report:

1. Types of wastes and quantity of each type;

2. Name and address for each hauler of wastes (or method of transport if other than by hauling); and

3. Location of the final point(s) of disposal for each type of waste.

If no wastes are transported off-site during the reporting period, a statement to that effect shall be submitted.

P. Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.

Q. Laboratories analyzing monitoring samples shall be certified by the Department of Health Services, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	Effluent monitoring for Discharge Point No. 001 shall be conducted where representative treated effluent samples can be obtained prior to discharge.
002	EFF-002	Effluent monitoring for Discharge Point No. 002 shall be conducted where representative treated effluent samples can be obtained prior to discharge.
003	EFF-003	Effluent monitoring for Discharge Point No. 003 shall be conducted where representative treated effluent samples can be obtained prior to discharge.
004	EFF-004	Effluent monitoring for Discharge Point No. 004 shall be conducted where representative treated effluent samples can be obtained prior to discharge.
--	RSW-001	Within the Los Alamitos Channel, approximately 50 feet upstream of Discharge Point No. 004.
--	RSW-002	Within the Los Alamitos Channel, approximately 50 feet downstream of Discharge Point No. 001.

III. INFLUENT MONITORING REQUIREMENTS

Not Applicable

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor storm water at EFF-001 as follows.

Table E-2. Effluent Monitoring at EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gal/day	Meter	1/Day[1]	
Conventional Pollutants				
pH	s.u.	Grab	1/Discharge Event[2]	[3]
Biochemical Oxygen Demand (5-day @ 20 deg. C) (BOD)	mg/L	Grab	1/Discharge Event[2]	[3]
Oil and Grease	mg/L	Grab	1/Discharge Event[2]	[3]
Total Suspended Solids (TSS)	mg/L	Grab	1/Discharge Event[2]	[3]
Non-Conventional Pollutants				
Temperature	°F	Grab	1/Discharge Event[2]	[3]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/Discharge Event[2]	[3]
E. Coli	MPN/100 ml	Grab	1/Discharge Event[2]	[3]
Fecal Coliform	MPN/100 ml	Grab	1/Discharge Event[2]	[3]
Methyl Tertiary Butyl Ether	µg/L	Grab	1/Year[4]	EPA Method 502.2 or 524.3
Settleable Solids	ml/L	Grab	1/Discharge Event[2]	[3]
Sulfides	mg/L	Grab	1/Discharger Event[2]	[3]
Turbidity	NTU	Grab	1/Discharge Event[2]	[3]
Phenol	mg/L	Grab	1/Discharge Event[2]	[3]
Total Petroleum Hydrocarbons (TPH) as Gasoline (C_4-C_{12})	µg/L	Grab	1/Discharge Event[2]	EPA Method 503 or 8015B
TPH as Diesel (C_{13}-C_{22})	µg/L	Grab	1/Discharge Event[2]	EPA Method 503.1, 8015B, or 8270
TPH as Waste Oil (C_{23+})	µg/L	Grab	1/Discharge Event[2]	EPA Method 503.1, 8015B, or 8270
Xylene	µg/L	Grab	1/Discharge Event[2]	[3]
Acute Toxicity	% Survival	Grab	1/Year[4]	[5]
Priority Pollutants				
Copper, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Lead, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Nickel, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Zinc, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Cyanide, Total (as CN)	µg/L	Grab	1/Discharge Event[2]	[3]
Benzene	µg/L	Grab	1/Discharge Event[2]	[3]
Ethylbenzene	µg/L	Grab	1/Discharge Event[2]	[3]
Toluene	µg/L	Grab	1/Discharge Event[2]	[3]
Remaining Priority Pollutants[6]	µg/L	Grab	1/Year[4]	[3]
TCDD Equivalents[7]	µg/L	Grab	1/Year[4]	[3]

[1] Required only during periods of discharge.

[2] During periods of extended or frequent discharge, no more than one sample per month is required. Sampling shall be performed during the first hour of discharge. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report.

[3] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level. For chlordane, 4,4-DDT, and PCBs a non-detect result using a method associated with the lowest minimum level stipulated in the SIP will be used to determine compliance, in accordance with Monitoring and Reporting Program (MRP) Provision G.

[4] Monitoring is only required during years in which a discharge occurs. Annual samples shall be collected during the first discharge of the year.

[5] Refer to section V., Whole Effluent Toxicity Testing Requirements.

[6] Priority Pollutants as defined by the CTR defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment I.

[7] To determine compliance with effluent limitations or to conduct Reasonable Potential Analysis (RPA), this Order requires the Discharger to calculate and report dioxin-toxicity equivalencies (TEQs) using the following formula, where the toxicity equivalency factors (TEFs) are listed in the Table below:

$$\text{Dioxin-TEQ} = \Sigma(C_x \times TEF_x)$$

where:

C_X = concentration of, dioxin or furan congener x

TEF_X = TEF for congener x

Toxicity Equivalency Factors

Congeners	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	1.0
1,2,3,7,8 - penta CDD	1.0
1,2,3,4,7,8 - hexa CDD	0.1
1,2,3,6,7,8 - hexa CDD	0.1
1,2,3,7,8,9 - hexa CDD	0.1
1,2,3,4,6,7,8 - hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8 - tetra CDF	0.1
1,2,3,7,8 - penta CDF	0.05

Congeners	Toxicity Equivalence Factor (TEF)
2,3,4,7,8 - penta CDF	0.5
1,2,3,4,7,8 - hexa CDF	0.1
1,2,3,6,7,8 - hexa CDF	0.1
1,2,3,7,8,9 - hexa CDF	0.1
2,3,4,6,7,8 - hexa CDF	0.1
1,2,3,4,6,7,8 - hepta CDFs	0.01
1,2,3,4,7,8,9 - hepta CDFs	0.01
Octa CDF	0.0001

B. Monitoring Location EFF-002

1. The Discharger shall monitor storm water at EFF-002 as follows.

Table E-3. Effluent Monitoring at EFF-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gal/day	Meter	1/Day[1]	--
Conventional Pollutants				
pH	s.u.	Grab	1/Discharge Event[2]	[3]
BOD	mg/L	Grab	1/Discharge Event[2]	[3]
Oil and Grease	mg/L	Grab	1/Discharge Event[2]	[3]
TSS	mg/L	Grab	1/Discharge Event[2]	[3]
Non-Conventional Pollutants				
Temperature	°F	Grab	1/Discharge Event[2]	[3]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/Discharge Event[2]	[3]
E. Coli	MPN/100 ml	Grab	1/Discharge Event[2]	[3]
Fecal Coliform	MPN/100 ml	Grab	1/Discharge Event[2]	[3]
Methyl Tertiary Butyl Ether	µg/L	Grab	1/Year[4]	EPA Method 502.2 or 524.3
Phenol	mg/L	Grab	1/Discharge Event[2]	[3]
Settleable Solids	ml/L	Grab	1/Discharge Event[2]	[3]
Sulfides	mg/L	Grab	1/Discharger Event[2]	[3]
Turbidity	NTU	Grab	1/Discharge Event[2]	[3]
TPH as Gasoline (C_{4}-C_{12})	µg/L	Grab	1/Discharge Event[2]	EPA Method 503 or 8015B
TPH as Diesel (C_{13}-C_{22})	µg/L	Grab	1/Discharge Event[2]	EPA Method 503.1, 8015B, or 8270
TPH as Waste Oil (C_{23+})	µg/L	Grab	1/Discharge Event[2]	EPA Method 503.1, 8015B, or 8270
Xylene	µg/L	Grab	1/Discharge Event[2]	[3]
Acute Toxicity	% Survival	Grab	1/Year[4]	[5]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Priority Pollutants				
Arsenic, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Chromium VI, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Copper, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Lead, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Nickel, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Zinc, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Cyanide, Total (as CN)	µg/L	Grab	1/Discharge Event[2]	[3]
Benzene	µg/L	Grab	1/Discharge Event[2]	[3]
Beta-BHC	µg/L	Grab	1/Discharge Event[2]	[3]
Chlordane	µg/L	Grab	1/Discharge Event[2]	[3]
4,4'-DDT	µg/L	Grab	1/Discharge Event[2]	[3]
Ethylbenzene	µg/L	Grab	1/Discharge Event[2]	[3]
PCBs[6]	µg/L	Grab	1/Discharge Event[2]	[3]
Toluene	µg/L	Grab	1/Discharge Event[2]	[3]
Remaining Priority Pollutants[7]	µg/L	Grab	1/Year[4]	[3]
TCDD Equivalents[8]	µg/L	Grab	1/Year[4]	[3]

[1] Required only during periods of discharge.

[2] During periods of extended or frequent discharge, no more than one sample per month is required. Sampling shall be performed during the first hour of discharge. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report.

[3] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

[4] Monitoring is only required during years in which a discharge occurs. Annual samples shall be collected during the first discharge of the year.

[5] Refer to section V., Whole Effluent Toxicity Testing Requirements.

[6] PCBs shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

[7] Priority Pollutants as defined by the CTR defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment I.

[8] To determine compliance with effluent limitations or to conduct Reasonable Potential Analysis (RPA), this Order requires the Discharger to calculate and report dioxin-toxicity equivalencies (TEQs) using the following formula, where the toxicity equivalency factors (TEFs) are as listed in Table below:

$$\text{Dioxin-TEQ} = \Sigma(C_x \times TEF_x)$$

where:

C_X = concentration of, dioxin or furan congener x

TEF_X = TEF for congener x

Toxicity Equivalency Factors

Congeners	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	1.0
1,2,3,7,8 - penta CDD	1.0
1,2,3,4,7,8 - hexa CDD	0.1
1,2,3,6,7,8 - hexa CDD	0.1
1,2,3,7,8,9 - hexa CDD	0.1
1,2,3,4,6,7,8 - hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8 - tetra CDF	0.1
1,2,3,7,8 - penta CDF	0.05
2,3,4,7,8 - penta CDF	0.5
1,2,3,4,7,8 - hexa CDF	0.1
1,2,3,6,7,8 - hexa CDF	0.1
1,2,3,7,8,9 - hexa CDF	0.1
2,3,4,6,7,8 - hexa CDF	0.1
1,2,3,4,6,7,8 - hepta CDFs	0.01
1,2,3,4,7,8,9 - hepta CDFs	0.01
Octa CDF	0.0001

C. Monitoring Location EFF-003

1. The Discharger shall monitor storm water at EFF-003 as follows.

Table E-4. Effluent Monitoring at EFF-003

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gal/day	Meter	1/Day[1]	--
Conventional Pollutants				
pH	s.u.	Grab	1/Discharge Event[2]	[3]
BOD	mg/L	Grab	1/Discharge Event[2]	[3]
Oil and Grease	mg/L	Grab	1/Discharge Event[2]	[3]
TSS	mg/L	Grab	1/Discharge Event[2]	[3]
Non-Conventional Pollutants				
Temperature	°F	Grab	1/Discharge Event[2]	[3]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/Discharge Event[2]	[3]
E. Coli	MPN/100 ml	Grab	1/Discharge Event[2]	[3]
Fecal Coliform	MPN/100 ml	Grab	1/Discharge Event[2]	[3]
Methyl Tertiary Butyl Ether	µg/L	Grab	1/Year[4]	EPA Method 502.2 or 524.3

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Phenol	mg/L	Grab	1/Discharge Event[2]	[3]
Settleable Solids	ml/L	Grab	1/Discharge Event[2]	[3]
Turbidity	NTU	Grab	1/Discharge Event[2]	[3]
TPH as Gasoline (C_4-C_{12})	µg/L	Grab	1/Discharge Event[2]	EPA Method 503 or 8015B
TPH as Diesel (C_{13}-C_{22})	µg/L	Grab	1/Discharge Event[2]	EPA Method 503.1, 8015B, or 8270
TPH as Waste Oil (C_{23+})	µg/L	Grab	1/Discharge Event[2]	EPA Method 503.1, 8015B, or 8270
Acute Toxicity	% Survival	Grab	1/Year[4]	[5]
Priority Pollutants				
Copper, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Lead, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Nickel, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Zinc, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Cyanide, Total (as CN)	µg/L	Grab	1/Discharge Event[2]	[3]
Benzene	µg/L	Grab	1/Discharge Event[2]	[3]
Ethylbenzene	µg/L	Grab	1/Discharge Event[2]	[3]
Toluene	µg/L	Grab	1/Discharge Event[2]	[3]
Remaining Priority Pollutants[6]	µg/L	Grab	1/Year[4]	[3]
TCDD Equivalents[7]	µg/L	Grab	1/Year[4]	[3]

[1] Required only during periods of discharge.

[2] During periods of extended or frequent discharge, no more than one sample per month is required. Sampling shall be performed during the first hour of discharge. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report.

[3] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

[4] Monitoring is only required during years in which a discharge occurs. Annual samples shall be collected during the first discharge of the year.

[5] Refer to section V., Whole Effluent Toxicity Testing Requirements.

[6] Priority Pollutants as defined by the CTR defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment I. Annual samples shall be collected during the first hour of discharge from the first storm event of the wet season (October 1 – May 30). If no discharge occurs, no monitoring is required.

[7] To determine compliance with effluent limitations or to conduct Reasonable Potential Analysis (RPA), this Order requires the Discharger to calculate and report dioxin-toxicity equivalencies (TEQs) using the

following formula, where the toxicity equivalency factors (TEFs) as listed in Table below:

Dioxin-TEQ = $\Sigma(C_x \times TEF_x)$

where:

C_X = concentration of, dioxin or furan congener x

TEF_X = TEF for congener x

Toxicity Equivalency Factors

Congeners	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	1.0
1,2,3,7,8 - penta CDD	1.0
1,2,3,4,7,8 - hexa CDD	0.1
1,2,3,6,7,8 - hexa CDD	0.1
1,2,3,7,8,9 - hexa CDD	0.1
1,2,3,4,6,7,8 - hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8 - tetra CDF	0.1
1,2,3,7,8 - penta CDF	0.05
2,3,4,7,8 - penta CDF	0.5
1,2,3,4,7,8 - hexa CDF	0.1
1,2,3,6,7,8 - hexa CDF	0.1
1,2,3,7,8,9 - hexa CDF	0.1
2,3,4,6,7,8 - hexa CDF	0.1
1,2,3,4,6,7,8 - hepta CDFs	0.01
1,2,3,4,7,8,9 - hepta CDFs	0.01
Octa CDF	0.0001

D. Monitoring Location EFF-004

1. The Discharger shall monitor storm water at EFF-004 as follows.

Table E-5. Effluent Monitoring at EFF-004

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gal/day	Meter	1/Day[1]	--
Conventional Pollutants				
pH	s.u.	Grab	1/Discharge Event[2]	[3]
BOD	mg/L	Grab	1/Discharge Event[2]	[3]
Oil and Grease	mg/L	Grab	1/Discharge Event[2]	[3]
TSS	mg/L	Grab	1/Discharge Event[2]	[3]
Non-Conventional Pollutants				
Temperature	°F	Grab	1/Discharge Event[2]	[3]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/Discharge Event[2]	[3]
E. Coli	MPN/100 ml	Grab	1/Discharge Event[2]	[3]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Fecal Coliform	MPN/100 ml	Grab	1/Discharge Event[2]	[3]
Methyl Tertiary Butyl Ether	µg/L	Grab	1/Year[4]	EPA Method 502.2 or 524.3
Settleable Solids	ml/L	Grab	1/Discharge Event[2]	[3]
Turbidity	NTU	Grab	1/Discharge Event[2]	[3]
Phenol	mg/L	Grab	1/Discharge Event[2]	[3]
TPH as Gasoline (C_4-C_{12})	µg/L	Grab	1/Discharge Event[2]	EPA Method 503 or 8015B
TPH as Diesel (C_{13}-C_{22})	µg/L	Grab	1/Discharge Event[2]	EPA Method 503.1, 8015B, or 8270
TPH as Waste Oil (C_{23+})	µg/L	Grab	1/Discharge Event[2]	EPA Method 503.1, 8015B, or 8270
Acute Toxicity	% Survival	Grab	1/Year[4]	[5]
Priority Pollutants				
Copper, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Lead, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Nickel, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Zinc, Total Recoverable	µg/L	Grab	1/Discharge Event[2]	[3]
Benzene	µg/L	Grab	1/Discharge Event[2]	[3]
Ethylbenzene	µg/L	Grab	1/Discharge Event[2]	[3]
Toluene	µg/L	Grab	1/Discharge Event[2]	[3]
Remaining Priority Pollutants[6]	µg/L	Grab	1/Year[4]	[3]
TCDD Equivalents[7]	µg/L	Grab	1/Year[4]	[3]

[1] Required only during periods of discharge.

[2] During periods of extended or frequent discharge, no more than one sample per month is required. Sampling shall be performed during the first hour of discharge. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report.

[3] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

[4] Monitoring is only required during years in which a discharge occurs. Annual samples shall be collected during the first discharge of the year.

[5] Refer to section V., Whole Effluent Toxicity Testing Requirements.

[6] Priority Pollutants as defined by the CTR defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment I.

[7] To determine compliance with effluent limitations or to conduct Reasonable Potential Analysis (RPA), this Order requires the Discharger to calculate and report dioxin-toxicity equivalencies (TEQs) using the following formula, where the toxicity equivalency factors (TEFs) are listed in Table below:

$$\text{Dioxin-TEQ} = \Sigma(C_x \times TEF_x)$$

where:

C_X = concentration of, dioxin or furan congener x
TEF_X = TEF for congener x

Toxicity Equivalency Factors

Congeners	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	1.0
1,2,3,7,8 - penta CDD	1.0
1,2,3,4,7,8 - hexa CDD	0.1
1,2,3,6,7,8 - hexa CDD	0.1
1,2,3,7,8,9 - hexa CDD	0.1
1,2,3,4,6,7,8 - hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8 - tetra CDF	0.1
1,2,3,7,8 - penta CDF	0.05
2,3,4,7,8 - penta CDF	0.5
1,2,3,4,7,8 - hexa CDF	0.1
1,2,3,6,7,8 - hexa CDF	0.1
1,2,3,7,8,9 - hexa CDF	0.1
2,3,4,6,7,8 - hexa CDF	0.1
1,2,3,4,6,7,8 - hepta CDFs	0.01
1,2,3,4,7,8,9 - hepta CDFs	0.01
Octa CDF	0.0001

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

1. Definition of Toxicity

Acute toxicity is a measure of primarily lethal effects that occur over a 96-hour period. Acute toxicity shall be measured in percent survival measured in undiluted (100%) effluent.

a. 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

b. No single test shall produce less than 70% survival.

2. **Acute Toxicity Effluent Monitoring Program**

a. **Method.** The Discharger shall conduct acute toxicity tests (96-hour static renewal toxicity tests) on effluent grab samples, by methods specified in 40 CFR Part 136 which cites USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, USEPA, Office of Water, Washington D.C. (EPA/821/R-02/012) or a more recent edition to ensure compliance. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.

b. **Test Species.** The fathead minnow, *Pimephales promelas* (Acute Toxicity Test Method 2000.0), shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish effluent. However, if the salinity of the receiving water is between 1 to 32 parts per thousand (ppt), the Discharger may have the option of using the inland silverside, *Menidia beryllina* (Acute Toxicity Test Method 2006.0), instead of the topsmelt. The method for topsmelt (Larval Survival and Growth Test Method 1006.0) is found in USEPA's *Short-term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms, First Edition, August 1995* (EPA/600/R-95/136).

c. **Alternate Reporting.** For the acute toxicity testing with topsmelt, the Discharger may elect to report the results or endpoint from the first 96 hours of the chronic toxicity test as the results of the acute toxicity test, using USEPA's August 1995 method (EPA/600/R-95/136) to conduct the chronic toxicity test.

d. **Acute Toxicity Accelerated Monitoring.** If either of the above requirements (sections 1.a and 1.b) is not met, the Discharger shall conduct six additional tests, approximately every 2 weeks, over a 12-week period (or over the next six storm events for storm water monitoring). The Discharger shall ensure that they receive results of a failing toxicity test within 24 hours of the close of the test and the additional tests shall begin within 5 business days of the receipt of the result. If the additional tests indicate compliance with the toxicity limitation, the Discharger may resume regular testing.

e. **Toxicity Identification Evaluation**

i. If the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall immediately begin a Toxicity Identification Evaluation (TIE) and implement the Initial Investigation Toxicity Reduction Evaluation (TRE) workplan. The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the objective.

ii. If the initial test and any of the additional six acute toxicity bioassay tests results are less than 70% survival, the Discharger shall immediately begin a TIE and implement Initial Investigation TRE workplan. Once the sources are identified the Discharger shall take all reasonable steps to reduce toxicity to meet the requirements.

B. Quality Assurance

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).

2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manuals (EPA/600/4-91/002 and EPA/821-R-02-014), then the Discharger must re-sample and re-test at the earliest time possible.

3. Control and dilution water should be receiving water (if non-toxic) or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the water the test species are grown in (culture water), a second control using culture water shall be used.

C. Preparation of an Initial Investigation TRE Workplan

The Discharger shall prepare and submit a copy of the Discharger's initial investigation TRE workplan to the Executive Officer of the Regional Water Board for approval within **90 days** of the effective date of this permit. 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) 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:

1. 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.

2. 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 the operation of the facility; and,

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

D. Steps in TRE and TIE Procedures

1. If results of the implementation of the facility's initial investigation TRE workplan indicate the need to continue the TRE/TIE, the Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 30 days of completion of the initial investigation TRE. The detailed workplan shall include, but not be limited to:

   a. Further actions to investigate and identify the cause of toxicity;

   b. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity;

   c. A schedule for these actions.

2. The following is a stepwise approach in conducting the TRE

a. Step 1 includes basic data collection. Data collected for the accelerated monitoring requirements may be used to conduct the TRE;

b. Step 2 evaluates optimization of the treatment system operation, facility housekeeping, and the selection and use of in-plant process chemicals;

c. If Steps 1 and 2 are unsuccessful, Step 3 implements a TIE and employment of all reasonable efforts using currently available TIE methodologies. The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity;

d. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;

e. Step 5 evaluates in-plant treatment options; and,

f. Step 6 consists of confirmation once a toxicity control method has been implemented.

Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of compliance with those requirements may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the facility's TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there are no longer toxicity (six consecutive chronic toxicity test results are less than or equal to 1.0 TUc or six consecutive acute toxicity test results are greater than 90% survival).

3. The Discharger shall initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the USEPA acute manual, chronic manual, EPA/600/6-91/005F (Phase I)/EPA/600/R-96-054 (for marine), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III), as guidance.

4. If a TRE/TIE is initiated prior to completion of the accelerated testing required in section V.A.2.d required in this program, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

5. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance determination, if appropriate.

6. The Regional Water Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Regional Water Board will be based, in part, on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

E. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia *because of* increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not other toxicants before the Executive Officer would allow for control of pH in the test.

a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.

b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.

c. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.

d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.

2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

F. Reporting

The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month as required by this permit. Test results shall be reported as % survival for acute toxicity test results with the self monitoring reports (SMR) for the month in which the test is conducted. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, pursuant to section V.A.2.d., then those results also shall be submitted with the SMR for the period in which the investigation occurred.

1. The full report shall be submitted on or before the end of the month in which the SMR is submitted.

2. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the acute toxicity average limit or chronic toxicity limit or trigger; and (4) the printout of the ToxCalc or CETIS (Comprehensive Environmental Toxicity Information System) program results.

3. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the SMR. Routine reporting shall include, at a minimum, as applicable, for each test:

   a. Sample date(s);

   b. Test initiation date;

   c. Test species;

   d. End point values for each dilution (e.g., number of young, growth rate, percent survival);

   e. LC_{50} value(s) in percent effluent;

   f. TU_a values $\left(TU_a = \frac{100}{LC_{50}} \right)$;

   g. IC_{15}, IC_{25}, IC_{40} and IC_{50} values in percent effluent;

   h. NOEC value(s) in percent effluent;

   i. TU_c values $\left(TU_c = \frac{100}{NOEC} \right)$;

   j. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable);

   k. NOEC and LOEC values for reference toxicant test(s);

   l. IC_{25} value for reference toxicant test(s);

   m. Any applicable charts; and

   n. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).

4. The Discharger shall provide a compliance summary, which includes a summary table of toxicity data from all samples collected during that year.

5. The Discharger shall notify by telephone or electronically, this Regional Water Board of any toxicity exceedance of the limit or trigger within 24 hours of receipt of the results followed by a written report within 14 calendar days of receipt of the results. The verbal or electronic notification shall include the exceedance and the plan the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

Not Applicable

VII. RECLAMATION MONITORING REQUIREMENTS

Not Applicable

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

A. Monitoring Location RSW-001

1. The Discharger shall monitor the Los Alamitos Channel, approximately 50 feet upstream of Discharge Point No. 004, at RSW-001 as follows:

Table E-6. Receiving Water Monitoring Requirements at Monitoring Location RSW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	standard units	Grab	1/Year[1]	[2]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/Year[1]	[2]
Dissolved Oxygen	mg/L	Grab	1/Year[1]	[2]
Hardness, Total (as $CaCO_3$)	mg/L	Grab	1/Year[1]	[2]
Salinity	mg/L	Grab	1/Year[1]	[2]
Priority Pollutants[3]	µg/L	Grab	1/Year[1]	[2]
TCDD Equivalents[4]	µg/L	Grab	1/Year[1]	[2]

[1] Monitoring is only required during years in which a discharge occurs. Annual samples shall be collected during the first discharge of the year. Receiving water samples should be collected at the same time as effluent samples, if possible, or at the first safe opportunity.

[2] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

[3] Priority Pollutants as defined by the CTR, defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment I.

[4] To conduct Reasonable Potential Analysis (RPA), this Order requires the Discharger to calculate and report dioxin-toxicity equivalencies (TEQs) using the following formula, where the toxicity equivalency factors (TEFs) are as listed in Table below:

$$\text{Dioxin-TEQ} = \Sigma(C_x \times TEF_x)$$

where:

C_X = concentration of, dioxin or furan congener x

TEF_X = TEF for congener x

Toxicity Equivalency Factors

Congeners	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	1.0

Congeners	Toxicity Equivalence Factor (TEF)
1,2,3,7,8 - penta CDD	1.0
1,2,3,4,7,8 - hexa CDD	0.1
1,2,3,6,7,8 - hexa CDD	0.1
1,2,3,7,8,9 - hexa CDD	0.1
1,2,3,4,6,7,8 - hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8 - tetra CDF	0.1
1,2,3,7,8 - penta CDF	0.05
2,3,4,7,8 - penta CDF	0.5
1,2,3,4,7,8 - hexa CDF	0.1
1,2,3,6,7,8 - hexa CDF	0.1
1,2,3,7,8,9 - hexa CDF	0.1
2,3,4,6,7,8 - hexa CDF	0.1
1,2,3,4,6,7,8 - hepta CDFs	0.01
1,2,3,4,7,8,9 - hepta CDFs	0.01
Octa CDF	0.0001

B. Monitoring Location RSW-002

1. The Discharger shall monitor the Los Alamitos Channel, approximately 50 feet downstream of Discharge Point No. 001 at RSW-002 as follows:

Table E-7. Receiving Water Monitoring Requirements at Monitoring Location RSW-002[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	standard units	Grab	1/Year	[2]
Hardness, Total (as $CaCO_3$)	mg/L	Grab	1/Year[1]	[2]
Temperature	ºF	Grab	1/Year	[2]

[1] Monitoring is only required during years in which a discharge occurs. Annual samples shall be collected during the first discharge of the year. Receiving water samples should be collected at the same time as effluent samples, if possible, or at the first safe opportunity.

[2] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

IX. OTHER MONITORING REQUIREMENTS

A. Storm Water Monitoring

1. Rainfall Monitoring. The Discharger shall measure and record the rainfall on each day of the month. This information shall be included in the monitoring report for that month.

2. **Visual Observation.** The Discharger shall make visual observations of all storm water discharge locations on at least one storm event per month that produces a significant storm water discharge to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor. A "significant storm water discharge" is a continuous discharge of storm water for a minimum of one hour, or the intermittent discharge of storm water for a minimum of 3 hours in a 12-hour period. Visual observations shall be performed during daylight and under conditions where it is safe for employees to view the discharge.

B. Storm Water Pollution Prevention Plan (SWPPP), Best Management Practices (BMP), and Spill Prevention Control and Countermeasures (SPCC) Plan Effectiveness Report

1. As required under Special Provision VI.C.3 of this Order, the Discharger shall submit an updated SWPPP and SPCC Plan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit.

2. Annually the Discharger shall report the status of the implementation and the effectiveness of the SWPPP and SPCC Plan as required under Special Provision VI.C.3 of this Order. The SWPPP shall be reviewed annually and the SPCC Plan shall be reviewed once every five years and both shall be updated as needed to ensure all actual or potential sources of pollutants in wastewater and storm water discharged from the facility are addressed in the SWPPP and SPCC Plan. All changes or revisions to the SWPPP, and SPCC Plan will be summarized in the annual report required under Attachment E, Monitoring and Reporting, section X.D.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

2. If there is no discharge during any reporting period, the report shall so state.

3. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

4. The Discharger shall inform the Regional Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

5. The Discharger shall report the results of acute and chronic toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, Section V.F.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit quarterly SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-8. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
1/Day	July 5, 2011	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	May 1 August 1 November 1 February 1
1/Discharge Event	July 5, 2011	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 December 1 February 1
1/Year	July 5, 2011	January 1 through December 31	February 1
Annual Report	July 5, 2011	January 1 through December 31	March 15

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in Part 136.

5. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The

estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

6. Compliance Determination. Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

7. Multiple Sample Data. When determining compliance with an AMEL or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

8. The Discharger shall submit SMRs in accordance with the following requirements:

a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

California Regional Water Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

C. Discharge Monitoring Reports (DMRs)

Not Applicable

D. Other Reports

1. Within 90 days of the effective date of this permit, the Discharger is required to submit the following to the Regional Water Board:

   a. Initial Investigation TRE workplan

   b. Updated SWPPP

   c. Updated BMPP

   d. SPCC Plan

2. By March 15 of each year, the Discharger shall submit an annual report to the Regional Water Board and USEPA. The report shall contain the following:

   a. Both tabular and graphical summaries of the monitoring data obtained during the previous year.

   b. A discussion on the compliance record and the corrective actions taken or planned to bring the discharge into full compliance with the waste discharge requirements.

c. A report discussing the following: 1) operation/maintenance problems; 2) changes to the facility operations and activities; 3) potential discharge of the pollutants associated with the changes and how these changes are addressed in the BMP portion of the SWPPP; 3) calibration of flow meters or other equipment/device used to demonstrate compliance with effluent limitations of this Order.

d. A report on the status of the implementation and the effectiveness of the SWPPP and BMPs.

e. A report summarizing all changes or revisions to the SWPPP, BMPs, and the SPCC

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	4B192238002
Discharger	Los Angeles Department of Water and Power
Name of Facility	Haynes Tank Farm Tanks A-J
Facility Address	6801 East Second Street. Long Beach, California 90803 Los Angeles County
Facility Contact, Title and Phone	Katherine Rubin, Manager of Wastewater Quality Compliance (213) 367-0436
Authorized Person to Sign and Submit Reports	Aram Benyamin, Senior Assistant General Manager (213) 367-4435
Mailing Address	111 North Hope Street, Rm 1213 Los Angeles, CA 90012
Billing Address	SAME
Type of Facility	Petroleum Bulk Station and Terminal (SIC 5171)
Major or Minor Facility	Minor
Threat to Water Quality	Category 3
Complexity	Category C
Pretreatment Program	Not Applicable
Reclamation Requirements	Not Applicable
Facility Permitted Flow	420,000 gallons per day (gpd) (Discharge Point No. 001) 220,000 gpd (Discharge Point No. 002) 590,000 gpd (Discharge Point No. 003) 715,000 gpd (Discharge Point No. 004)
Facility Design Flow	Not Applicable
Watershed	San Gabriel River Watershed
Receiving Water	Los Alamitos Channel tributary to San Gabriel River Estuary
Receiving Water Type	Inland Surface Water

A. Los Angeles Department of Water and Power (hereinafter Discharger) is the owner and operator of Haynes Tank Farm Tanks A-J (hereinafter Facility), a bulk petroleum storage, loading, and distribution facility.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The Facility discharges storm water from four tank farm areas to the Los Alamitos Channel, thence to the San Gabriel River Estuary, both waters of the United States and is currently regulated by Order No. R4-2006-0054 which was effective on June 8, 2006, and expires on May 10, 2011. The Regional Water Board issued Time Schedule Order (TSO) No. R4-2006-0055 which established interim effluent limitations and a time schedule for the Discharger to comply with final effluent limitations for several CTR constituents (arsenic, chromium VI, copper, lead, nickel, zinc, cyanide, beta-BHC, chlordane, 4'4'-DDT, and polychlorinated biphenyls (PCBs)). The TSO expired on May 10, 2010. The terms and conditions of the current Order (R4-2006-0054) have been continued as per 40CFR part 122.6, which stipulates that if the Discharger submits a timely report of waste discharge (ROWD) and the permit is not renewed prior to the expiration date, the permit may be administratively extended. The current Order remains in effect until new Waste Discharge Requirements (WDRs) and National Discharge Elimination System (NPDES) permit are adopted pursuant to this Order.

C. The Regional Water Board conducted salinity monitoring of the Los Alamitos Channel on March 28, 2011. The salinity results indicate that the Los Alamitos Channel is a freshwater body.

D. The Discharger filed a ROWD and submitted an application for renewal of its WDRs and NPDES permit dated November 8, 2010. The application was determined to be complete on November 22, 2010.

II. FACILITY DESCRIPTION

The Discharger owns and operates the Haynes Tank Farm Tanks A-J located at 6801 East Second Street, Long Beach, California. All Tank Farm areas are used, or have been used in the past, for fuel storage. Tank A contains No. 2 diesel fuel. Tank B is being used to store storm water from bermed and graded areas and Tank C is being repaired and will also be used to store storm water. Tanks D and E are currently empty. Tanks F through J have been demolished and the soil remediation was completed in July and August of 2011.

A. Description of Wastewater and Biosolids Treatment or Controls

Q. Storm water within the tank farm areas is collected within berms or through grading and catch basins. The berms were designed as secondary containment in the event of an oil spill; they were never designed specifically to retain storm water. Storm water retention is merely a by-product of the oil spill safeguards. Tank A is currently being used for the storage of No. 2 diesel fuel. Tanks D and E are empty and clean. Tanks A-D are enclosed by a compacted earthen berm. The berm was constructed when Tanks A-D

were used to store diesel fuel, to provide secondary containment in the event of an oil spill. Tank E is enclosed by a compacted earthen berm. The berm was constructed when Tank E was used to store diesel fuel, to provide secondary containment in the event of a spill.

Tank B is being used as a settling tank that stores storm water that has collected in the bermed containment areas around Tanks A-D and Tank E, respectively. The storm water settles and is then released to percolate/evaporate in the containment area for Tanks A-D. Tank C is being repaired. Upon completion of the repairs, Tank C will also be used as a settling tank for storm water that collects in the bermed containment areas around Tanks A-D and Tank E.

Tanks F through J and their containment berms have been demolished and the entire area graded. All soil remediation took place in July and August of 2011. All stormwater-related equipment that was used for Tanks F through J remains in place. Stormwater from the area formerly occupied by Tanks F through J was directed to one of four oil/water separators that directly precede each discharge point. The oil/water separators consists of four stages and are used to recover oil and grease that is vacuumed out and disposed of at a legal disposal site. Discharges from oil/water separators flow by gravity to the Los Alamitos Channel, also referred to as the Orange County Flood Control Channel. The four discharge points and permitted flow rates are identified in Table F-2.

Stormwater that collects in the bermed containment areas around Tanks A-D and Tank E is directed to Tank B, where it settles. After settling, the stormwater is discharged into the bermed containment area for Tanks A-D, where it is left to percolate and /or evaporate. The Facility has not discharged during the term of Order No. R4-2006-0054.

B. Discharge Points and Receiving Waters

Effluent from each of the four oil/water separators flows by gravity through Discharge Point Nos. 001 through 004 to the Los Alamitos Channel (Orange County Flood Control Channel). The Discharger reported that no discharges from the Facility have occurred since 2005. As indicated in the ROWD, expected flow rates, based on calculated runoff from a 10-year/24-hour storm for each Tank Farm Area are outlined in Table F-2 below:

Table F-2. Storm Water Flows at Facility Tank Farm Areas

Tank Farm Area	Discharge Point No.	Discharge Point Latitude	Discharge Point Latitude	Discharge Flow Rate (gpd)
Tanks A,B,C, and D	001	33º 45’ 42”	118º 05’ 31”	420,000
Tank E	002	33º 45’ 50”	118º 05’ 32”	220,000
Area of Former Tanks F and G	003	33º 46 02”	118º 05’ 35”	590,000
Area of Former Tanks H and J	004	33º 46’ 10”	118º 05’ 39”	715,000

The Facilities' discharge commingles with other storm waters within the Los Alamitos Channel and flows to the Los Alamitos Retarding Basin (LARB) below East Second Street. The LARB is operated by the Orange County Flood Control District (OCFCD) and occupies approximately 30 acres, which serves a drainage tributary area of approximately 3,584 acres and provides approximately 242 acre-feet of storage volume for a 100-year storm event. The LARB consists of a depressed basin bordered by an unpaved road that is level with the surrounding topography. Storm water that accumulates in the LARB is pumped through discharge pipes to the San Gabriel River Estuary, a water of the United States. The OCFCD operates multiple pumps to deliver water from the LARB to the San Gabriel River Estuary. One sump pump accommodates low flow into the LARB and operates 24 hours a day, 7 days per week to produce a continuous discharge to the San Gabriel River Estuary. Preset water levels within the basin activate additional pumps to accommodate higher inflows.

Attachment B depicts a topographic map of the area around the Facility. Attachment C depicts the schematic diagram of the wastewater flow.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

No discharges of storm water occurred during the term of the permit from November 2006 through November 2010. Therefore, there were no samples collected representing recent storm water discharges.

D. Compliance Summary

The Regional Water Board issued TSO No. R4-2006-0055 on June 8, 2006, which established interim effluent limitations as listed in Table F-3. The TSO required the Discharger to comply with final effluent limitations contained in Order No. R4-2006-0054 by May 17, 2010. To reduce the presence of pollutants in the discharge, the Discharger currently routes storm water to Tank B for additional settling and subsequently releases the storm water to the Tank B containment area. Storm water within the Tank B containment area evaporates and percolates to the extent that there has not been a discharge from the Facility since issuance of TSO No. R4-2006-0055.

Table F-3. Interim Limitations Established Under TSO No. R4-2006-0055

Discharge Point No.	Parameter	Discharge Limitation Daily Maximum	
		µg/L[1]	lbs/day[2]
001	Copper, Total Recoverable	60	0.21
	Lead, Total Recoverable	51	0.179
	Nickel, Total Recoverable	35	0.123
	Zinc, Total Recoverable	274	0.96
	Cyanide	5	0.175
002	Arsenic, Total	54	0.10

Discharge Point No.	Parameter	Discharge Limitation Daily Maximum	
		µg/L[1]	lbs/day[2]
	Recoverable		
	Chromium, Total Recoverable	110	0.202
	Copper, Total Recoverable	360	0.661
	Lead, Total Recoverable	350	0.642
	Nickel, Total Recoverable	240	0.440
	Zinc, Total Recoverable	1,900	3.486
	Cyanide	6	0.011
	beta-BHC	0.05	0.000092
	Chlordane	0.03	0.000055
	4,4'DDT	0.03	0.000055
	PCBs	3	0.0055
003	Copper, Total Recoverable	40	0.197
	Lead, Total Recoverable	14	0.069
	Nickel, Total Recoverable	23	0.113
	Zinc, Total Recoverable	286	1.41
	Cyanide	9	0.044
004	Copper, Total Recoverable	151	0.9
	Lead, Total Recoverable	69	0.411
	Nickel, Total Recoverable	99	0.59
	Zinc, Total Recoverable	1,050	6.26

[1] The interim limits were based on the Facility's maximum effluent concentration (MEC).

[2] The mass limitations were calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. Maximum flow rates for each outfall are as follows: 0.420 MGD at Discharge Point No. 001, 0.220 MGD at Discharge Point No. 002, 0.590 MGD at Discharge Point No. 003, and 0.715 MGD at Discharge Point No. 004.

The interim effluent limitations expired on May 17, 2010, at which time the Facility was required to comply with final effluent limitations contained in Order No. R4-2006-0054.

E. Planned Changes

The Discharger plans to add additional generating units (six, 100-Megawatt, simple cycle gas turbines) in the area where Tanks F through J have been removed. The new

generating units will replace older generating units scheduled to be taken out of service, thus maintaining the same overall generating capacity.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as WDRs pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100 through 21177.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Quality Control Board (Regional Water Board) adopted a *Water Quality Control Plan Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (hereinafter Basin Plan) on June 13, 1994, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply.

   The Basin Plan does not currently assign beneficial uses specific to the Los Alamitos Channel. Federal regulations that address state water quality standards are contained in 40 CFR 131.2 and 131.10 and constitute a rebuttable presumption that beneficial uses supporting the "*fishable, swimmable*" goals of the federal CWA are attainable. Therefore, without evidence to disprove attainability, recreation and aquatic life beneficial uses apply to the Los Alamitos Channel. The Basin Plan states that "*waters not specifically listed (generally, smaller tributaries), are designated with the same beneficial uses as the streams, lakes, or reservoirs to which they are tributary.*" Because the discharge flows a relatively short distance (less than 1 mile) to the San Gabriel River Estuary, the Regional Water Board finds that the beneficial uses identified in the Basin Plan for the San Gabriel River Estuary are applicable to the Los Alamitos Channel as they support the "*fishable, swimmable*" goals of the CWA. Beneficial uses identified in the Basin Plan for the San Gabriel River Estuary, are as follows:

Table F-4. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001, 002, 003, and 004	Los Alamitos Channel tributary to the San Gabriel River Estuary	Existing: Industrial service supply (IND); navigation (NAV); water contact recreation (REC1); non-contact water recreation (REC2); commercial and sport fishing (COMM); estuarine habitat, (EST); marine habitat (MAR); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); migration of aquatic organisms (MIGR); spawning, reproduction, and/or early development (SPWN) Potential: Shellfish harvesting (SHELL)

Requirements of this Order implement the Basin Plan.

Enclosed Bays and Estuaries Policy. The Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Enclosed Bay and Estuaries Policy), adopted by the State Water Resources Control Board (State Board) as Resolution No. 95-84 on November 16, 1995, states that:

> "It is the policy of the State Board that the discharge of municipal wastewaters and industrial process waters (exclusive of cooling water discharges) to enclosed bays and estuaries, other than the San Francisco Bay-Delta system, shall be phased out at the earliest practicable date. Exceptions to this provision may be granted by a Regional Board only when the Regional Board finds that the wastewater in question would consistently be treated and discharged in such a manner that it would enhance the quality of receiving waters above that which would occur in the absence of the discharge."

While the Facility discharges to the Los Alamitos Channel, to the Los Alamitos Retarding Basin, and subsequently to the San Gabriel River Estuary, the wastewater is comprised primarily of storm water runoff and therefore is not considered to be industrial process wastewater. Nonetheless, this Order contains provisions necessary to protect all beneficial uses of the receiving water.

2. **Thermal Plan.** The State Water 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 surface waters. Requirements of this Order implement the Thermal Plan. Additionally, a white paper was developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region.* The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. A

maximum effluent temperature limitation of 86°F was determined to be appropriate for protection of aquatic life and is included in this Order.

3. **Ammonia Basin Plan Amendment.** The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Water 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 amendment reflects the revised water quality criteria developed by USEPA in the "1999 Update of Ambient Water Quality Criteria for Ammonia," December 1999. The 1999 Update contains USEPA's most recent freshwater aquatic life criteria for ammonia and supercedes all previous freshwater aquatic life criteria for ammonia. The ammonia Basin Plan amendment was approved by the State Water Board, the Office of Administrative Law (OAL), and USEPA 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 USEPA's 1999 ammonia criteria update.

4. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

5. **State Implementation Policy.** On March 2, 2000, the State Water 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 became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

6. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 CFR § 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect

and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

7. **Antidegradation Policy.** Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

8. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations[1] section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

D. Impaired Water Bodies on CWA 303(d) List

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Regional Water Board plans to develop and adopt total maximum daily loads (TMDLs) that will specify wasteload allocations (WLAs) for point sources and load allocations (LAs) for non-point sources, as appropriate.

The USEPA partially approved the State's 2010 303(d) list of impaired water bodies on November 12, 2010. Certain receiving waters in the Los Angeles watershed do not fully support beneficial uses and therefore have been classified as impaired on the 2010 303(d) list and have been scheduled for TMDL development. The approved portion of the 2010 State Water Board 303(d) List includes the classification of the San Gabriel River Estuary, to which Los Alamitos Channel is tributary, as impaired due to copper, dioxin, nickel, and dissolved oxygen. For dioxin, nickel, and dissolved oxygen, TMDL development is scheduled for a future date.

The USEPA developed the *TMDL for Metals and Selenium, San Gabriel River and Impaired Tributaries, effective March 26, 2007* (March, 2007), hereinafter referred to as the Metals TMDL. On July 13, 2006, the Regional Water Board approved the Metals TMDL, incorporating it into the Basin Plan. The Metals TMDL does not address discharges from individual NPDES permittees to the Los Alamitos Channel, hence no effluent limitations based on the TMDL are included in this Order.

[1] All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

E. Other Plans, Polices and Regulations

Not Applicable

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: section 122.44(a) requires that permits include applicable technology-based limitations and standards; and section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

The list of pollutants of concern was developed based on constituents that were historically found in the effluent or are common pollutants from petroleum storage facilities. Pollutants commonly associated with storm water discharges include ammonia, settleable solids, biochemical oxygen demand (5-day @ 20 deg. C) (BOD), total suspended solids (TSS), sulfides, temperature, turbidity, and bacteria. The storm water may come in contact with the raw materials and the products, which consist of several organic and inorganic compounds. Therefore, the pollutants of concern for this type of discharge include: oil and grease, pH, phenol, and total petroleum hydrocarbons (TPH), benzene, ethylbenzene, toluene, xylene, and methyl tertiary butyl ether (MTBE). Historical monitoring for priority pollutants includes elevated concentrations of chromium, copper, lead, nickel, zinc, cyanide, beta-BHC, chlordane, PCBs, and 4,4'DDT, thus these are considered pollutants of concern as well.

Generally, mass-based effluent limitations ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limitations. Section 122.45(f)(1) requires that all permit limitations, standards or prohibitions be expressed in terms of mass units except under the following conditions: (1) for pH, temperature, radiation or other pollutants that cannot appropriately be expressed by mass limitations; (2) when applicable standards or limitations are expressed in terms of other units of measure; or (3) if in establishing technology-based permit limitation on a case-by-case basis, limitations based on mass are infeasible because the mass or pollutant cannot be related to a measure of production. The limitations, however, must ensure that dilution will not be used as a substitute for treatment. This Order includes mass-based limitations where appropriate.

The discharge of storm water from the Facility is infrequent and of short duration. For this reason, maximum daily limitations are sufficient to ensure protection of the beneficial uses in the Los Alamitos Channel and the San Gabriel River Estuary. Therefore, this Order does not include average monthly effluent limitations.

A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan, State Water Board's plans and policies, the Water Code, and previous permit provisions, and

are consistent with the requirements set for other discharges regulated by NPDES permits to the San Gabriel River Watershed.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with Part 125, section 125.3.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

a. Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the “cost reasonableness” of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and section 125.3 of the Code of Federal Regulations authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in section 125.3.

2. **Applicable Technology-Based Effluent Limitations**

Currently, no technology-based ELGs exist for bulk petroleum storage, loading, and transfer facilities. The maximum daily effluent limitations (MDELs) for oil and grease, biochemical oxygen demand (5-day @ 20 deg. C) (BOD), TSS, phenol, settleable solids, turbidity, and TPH contained in Order No. R4-2006-0054 are BPJ-based limits. These technology-based effluent limitations have been carried over in the proposed Order for Discharge Point Nos. 001, 002, 003, and 004. These limitations are consistent with similar dischargers in the Los Angeles region. Tables F-5a through F-5d summarize the technology-based effluent limitations for Discharge Point Nos. 001 through 004.

Order No. R4-2006-0054 required the Discharger to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). This Order requires the Discharger to update and continue to implement the SWPPP. The revised SWPPP will reflect current operations, treatment activities, and staff responsible for implementing and supporting the SWPPP. The SWPPP will outline site-specific management processes for minimizing storm water contamination and for preventing contaminated storm water from being discharged directly into the storm drain. At a minimum, the management practices should ensure that raw materials and chemicals do not come into contact with storm water. This Order requires the Discharger to update and continue to implement the SWPPP consistent with requirements in Attachment G.

This Order requires the Discharger, as part of the SWPPP, identify Best Management Practices that address specific areas that are considered sources of pollutants. The BMPs shall include measures to minimize the amount of pollutants entering the discharge.

The Order requires the Discharger to update the Spill Prevention Control and Countermeasure (SPCC) Plan. The SPCC Plan is required in order to report on preventive and contingency (cleanup) procedures for controlling accidental discharges and for minimizing the adverse effects of such events.

The combination of the SWPPP, BMPs, and SPCC Plan and existing Order limitations reflecting BPJ will serve as the equivalent of technology-based effluent limitations, in the absence of established ELGs, in order to carry out the purposes and intent of the CWA.

Table F-5a. Summary of Technology-based Effluent Limitations for Discharge Point No. 001.

Parameter	Units	Average Monthly	Maximum Daily
BOD	mg/L	--	30
	lbs/day[1]	--	105.1
Oil and Grease	mg/L	--	15
	lbs/day[1]	--	52.5

Parameter	Units	Average Monthly	Maximum Daily
Phenol	µg/L	--	1,000
	lbs/day[1]	--	3.54
Settleable Solids	ml/L	--	0.3
Total Petroleum Hydrocarbons (TPH)[2]	µg/L	--	100
	lbs/day[1]	--	0.35
Turbidity	NTU	--	75
TSS	mg/L	--	75
	lbs/day[1]	--	263

[1] The mass limitations are based on a maximum flow of 420,000 gpd (0.42 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
[2] TPH equals the sum of TPH(C4-C12), TPH(C13-C23), and TPH(C23+)

Table F-5b. Summary of Technology-based Effluent Limitations for Discharge Point No. 002.

Parameter	Units	Average Monthly	Maximum Daily
BOD	mg/L	--	30
	lbs/day[1]	--	55
Oil and Grease	mg/L	--	15
	lbs/day[1]	--	28
Phenol	µg/L	--	1,000
	lbs/day[1]	--	1.83
Settleable Solids	ml/L	--	0.3
TPH[2]	µg/L	--	100
	lbs/day[1]	--	0.183
Turbidity	NTU	--	75
TSS	mg/L	--	75
	lbs/day[1]	--	138

[1] The mass limitations are based on a maximum flow of 220,000 gpd (0.22 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
[2] TPH equals the sum of TPH(C_4-C_{12}), TPH(C_{13}-C_{23}), and TPH(C_{23+})

Table F-5c. Summary of Technology-based Effluent Limitations for Discharge Point Nos. 003.

Parameter	Units	Average Monthly	Maximum Daily
BOD	mg/L	--	30
	lbs/day[1]	--	148
Oil and Grease	mg/L	--	15

Parameter	Units	Average Monthly	Maximum Daily
	lbs/day[1]	--	74
Phenol	µg/L	--	1,000
	lbs/day[1]	--	4.92
Settleable Solids	ml/L	--	0.3
TPH[2]	µg/L	--	100
	lbs/day[1]	--	0.492
Turbidity	NTU	--	75
TSS	mg/L	--	75
	lbs/day[1]	--	369

1. The mass limitations are based on a maximum flow of 590,000 gpd (0.59 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
2. TPH equals the sum of TPH(C_4-C_{12}), TPH(C_{13}-C_{23}), and TPH(C_{23+})

Table F-5d. Summary of Technology-based Effluent Limitations for Discharge Point No. 004.

Parameter	Units	Average Monthly	Maximum Daily
BOD	mg/L	--	30
	lbs/day[1]	--	178.9
Oil and Grease	mg/L	--	15
	lbs/day[1]	--	89.4
Phenol	µg/L	--	1,000
	lbs/day[1]	--	6.0
Settleable Solids	ml/L	--	0.3
Total Petroleum-Based Hydrocarbons (TPH)[2]	µg/L	--	100
	lbs/day[1]	--	0.60
Turbidity	NTU	--	75
TSS	mg/L	--	75
	lbs/day[1]	--	447

1. The mass limitations are based on a maximum flow of 715,000 gpd (0.715 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
2. TPH equals the sum of TPH(C_4-C_{12}), TPH(C_{13}-C_{23}), and TPH(C_{23+})

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

The specific procedures for determining reasonable potential and, if necessary, for calculating WQBELs are contained in the Technical Support Document (TSD) for storm water discharges and in the SIP for non-storm water discharges. However, the TSD states that "an analogous approach developed by a regulatory authority can be used to determine the reasonable potential" (for storm water discharges). The Regional Water Board has determined that the procedures for determining reasonable potential and calculating WQBELs contained in the SIP for non-storm water discharges may also be used to evaluate reasonable potential and calculate WQBELs for storm water discharges as well. Hence, in this Order, the SIP methodology is used to evaluate reasonable potential for storm water discharges through Discharge Point Nos. 001, 002, 003, and 004.

The specific procedures for determining reasonable potential for discharges from the Facility, and if necessary for calculating WQBELs, are contained in the SIP.

2. **Applicable Beneficial Uses and Water Quality Criteria and Objectives**

As noted in section II of the Limitations and Discharge Requirements, the Regional Water Board adopted a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to the Los Alamitos Channel and the San Gabriel River Estuary are summarized in section III.C.1 of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

Priority pollutant water quality criteria in the CTR are applicable to the Los Alamitos Channel. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply, in accordance with section 131.38(c)(3),

freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time. In this Order, freshwater criteria are used to protect the beneficial uses of the Los Alamitos Channel. Salinity data were collected within the Los Alamitos Channel on March 28, 2011. The results indicated salinity was below 1 ppt in all samples. The Los Alamitos Channel is engineered to discharge via pumps unidirectionally to the San Gabriel River such that estuary water does not enter the Los Alamitos Channel. Based on this information, the Regional Water Board has determined it is appropriate to reevaluate the discharge based on CTR freshwater aquatic life criteria.

Table F-6 summarizes freshwater criteria that are used to reevaluate the reasonable potential for the discharge to exceed applicable freshwater aquatic life criteria. Note that Table F-6 does not include criteria for several organic pollutants for which a re-evaluation was not necessary based on the fact that the criteria evaluated in Order No. R4-2006-0054 were human health-based and therefore independent of salinity.

Table F-6. Applicable Water Quality Criteria – Discharge Point Nos. 001, 002, 003, and 004.

CTR No.	Constituent	Selected Criteria	CTR/NTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
2	Arsenic	36	340	150				--
4	Cadmium	7.3	22	7.3				Narrative
5b	Chromium (VI)	11	16	11				--
6	Copper	31	52	31				--
7	Lead	19	477	19				Narrative
9	Nickel	169	1516	169				4,600
10	Selenium	5.0	20	5.0				Narrative
11	Silver	44	44	--				--
12	Thallium	6.3	--	--				6.3
13	Zinc	388	388	388				--
14	Cyanide	5.2	22	5.2				--

[1] "N/A" indicates the receiving water body is not characterized as saltwater, nor are the water quality criteria for the protection of human health for the consumption of water and organisms applicable.

On March 26, 2007, USEPA approved the TMDL for Metals and Selenium in the San Gabriel River and Impaired Tributaries. The Metals TMDL is not applicable to the Discharger, as it does not provide WLAs for discharges from individual industrial permittees in the Los Alamitos Channel. This order does not include effluent limitations based on the TMDL.

3. **Determining the Need for WQBELs**

In accordance with Section 1.3 of the SIP, the Regional Water Board conducts an RPA for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Water Board analyzes effluent and receiving water data and identifies the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent. To determine reasonable potential, the MEC and the B are then compared with the applicable water quality objectives (C) outlined in the CTR, NTR, as well as the Basin Plan. For all pollutants that have a reasonable potential to cause or contribute to an excursion above a state water quality standard, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water quality objectives specified in the Basin Plan. To conduct the RPA, the Regional Water Board identifies the MEC and maximum background concentration in the receiving water for each constituent, based on data provided by the Discharger.

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

1) Trigger 1 – If the MEC ≥ C, a limit is needed.

2) Trigger 2 – If the background concentration (B) > C and the pollutant is detected in the effluent, a limit is needed.

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

Sufficient effluent and receiving water data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification. There were no storm water discharges from November 2006 through November 2010. For this Order, data used to conduct an RPA for Order No. R4-2006-0054 were used to rerun the RPA based on use of the freshwater criteria in the CTR.

Table F-6a. Summary Reasonable Potential Analysis – Discharge Point No. 001.

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
2	Arsenic	150	10	Not Available	No	MEC<C
4	Cadmium	7.3	1.2	Not Available	No	MEC<C
5b	Chromium (VI)	11	9.7	Not Available	No	MEC<C
6	Copper	31	60.3	Not Available	Yes	MEC>C
7	Lead	19	51	Not Available	Yes	MEC>C
9	Nickel	169	35.4	Not Available	No	MEC<C
13	Zinc	388	274	Not Available	No	MEC<C
14	Cyanide	5.2	5.0	Not Available	No	MEC<C

Table F-6b. Summary Reasonable Potential Analysis – Discharge Point No. 002.

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
2	Arsenic	150	54	Not Available	No	MEC<C
4	Cadmium	7.3	2	Not Available	No	MEC<C
5b	Chromium (VI)	11	110	Not Available	Yes	MEC>C
6	Copper	31	360	Not Available	Yes	MEC>C
7	Lead	19	350	Not Available	Yes	MEC>C
9	Nickel	169	240	Not Available	Yes	MEC>C
13	Zinc	388	1,900	Not Available	Yes	MEC>C
14	Cyanide	5.2	6	Not Available	Yes	MEC<C

Table F-6c. Summary Reasonable Potential Analysis – Discharge Point No. 003.

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
5b	Chromium (VI)	11	1.7	Not Available	No	MEC<C
6	Copper	31	40	Not Available	Yes	MEC>C
7	Lead	19	13.2	Not Available	No	MEC<C
9	Nickel	169	23	Not Available	No	MEC<C
10	Selenium	5.0	4.5	Not Available	No	MEC<C
13	Zinc	388	290	Not Available	No	MEC<C
14	Cyanide	5.2	9	Not Available	Yes	MEC>C

Table F-6d. Summary Reasonable Potential Analysis – Discharge Point No. 004.

CTR No.	Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
2	Arsenic	150	12	Not Available	No	MEC<C
4	Cadmium	7.3	2.3	Not Available	No	MEC<C
5b	Chromium (VI)	11	0.15	Not Available	No	MEC<C
6	Copper	31	151	Not Available	Yes	MEC>C
7	Lead	19	69.1	Not Available	Yes	MEC>C
9	Nickel	169	98.7	Not Available	No	MEC<C
10	Selenium	5.0	6.8	Not Available	Yes	MEC>C
11	Silver	44	2.1	Not Available	No	MEC<C
12	Thallium	6.3	2.2	Not Available	No	MEC<C
13	Zinc	388	1,050	Not Available	Yes	MEC>C

4. **WQBEL Calculations**

a. If a reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one or more of the three procedures contained in Section 1.4 of the SIP. These procedures include:

i. If applicable and available, use of the WLA established as part of a TMDL.

ii. Use of a steady-state model to derive MDELs and AMELs.

iii. Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Regional Water Board.

b. Since no discharges have occurred during the previous permit term, an RPA was performed using SIP procedures and effluent data included in the Fact Sheet of Order No. R4-2006-0054. The RPA was not rerun for WQBELs established in Order No. R4-2005-0054, which were based only on human health criteria (i.e., no aquatic life criteria are available), rather these limitations are being carried over to this Order.

c. Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. Therefore, in this Order, no dilution credit is included. However, in accordance with the reopener provision in Section VI.C.1.e, this Order may be reopened upon the submission by the Discharger of adequate information to establish appropriate dilution credits or a mixing zone, as determined by the Regional Water Board.

d. WQBELs Calculation Example

Using total recoverable nickel (applicable to Discharge Point No. 002) as an example, the following demonstrates how WQBELs were established for this Order.

Calculation of aquatic life AMEL and MDEL:

Step 1: For each constituent requiring an effluent limit, identify the applicable water quality criteria or objective. For each criteria, determine the effluent concentration allowance (ECA) using the following steady state equation:

$ECA = C + D(C-B)$ when $C > B$, and
$ECA = C$ when $C \# B$,

Where C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators.
D = The dilution credit, and
B = The ambient background concentration

As discussed above, for this Order, dilution was not allowed; therefore:

$ECA = C$

For total recoverable nickel, the applicable water quality criteria are:

WLA_{acute}= 1516 µg/L
$WLA_{chronic}$= 169 µg/L

Step 2: For each ECA based on aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

$$LTA_{acute} = ECA_{acute} \times Multiplier_{acute\ 99}$$

$$LTA_{chronic} = ECA_{chronic} \times Multiplier_{chronic\ 99}$$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6. The default CV of 0.6 was used to calculate effluent limitations in Order No. R4-2006-0054 and will also be used for this Order.

For total recoverable nickel, the following data were used to develop the chronic LTA using equations provided in Section 1.4, Step 3 of the SIP (Table 1 of the SIP also provides this data up to three decimals):

CV	ECA Multiplier$_{chronic}$	ECA Multiplier$_{acute}$
0.60	0.527	0.321

$$LTA_{acute} = \quad 1516\ \mu g/L \times 0.321 = 487\ \mu g/L$$

$$LTA_{chronic} = \quad 169\ \mu g/L \times 0.527 = 89\ \mu g/L$$

Step 3: Select the most limiting (lowest) of the LTA.

$$LTA = \text{most limiting of } LTA_{acute} \text{ or } LTA_{chronic}$$

For nickel, the most limiting LTA was the $LTA_{chronic}$

$$LTA_{nickel} = LTA_{chronic} = 89\ \mu g/L$$

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as AMEL and MDEL. The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations. The value of the multiplier varies depending on the probability basis, the coefficient of variation (CV) of the data set, the number of samples (for AMEL) and whether it is a monthly or daily limit. Table 2

of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

$$AMEL_{aquatic\ life} = LTA \times AMEL_{multiplier\ 95}$$

$$MDEL_{aquatic\ life} = LTA \times MDEL_{multiplier\ 99}$$

AMEL multipliers are based on a 95th percentile occurrence probability, and the MDEL multipliers are based on the 99th percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

For total recoverable nickel, the following data were used to develop the AMEL and MDEL for effluent limitations using equations provided in Section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$
4	0.6	3.11	1.55

Nickel

$$AMEL = 89\ \mu g/L \times 1.55 = 138\ \mu g/L$$

$$MDEL = 89\ \mu g/L \times 3.11 = 277\ \mu g/L$$

Step 5: For the ECA based on human health, set the AMEL equal to the $ECA_{human\ health}$

$$AMEL_{human\ health} = ECA_{human\ health}$$

For nickel,

$$AMEL_{human\ health} = 4{,}600\ \mu g/L$$

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of the $Multiplier_{MDEL}$ to the $Multiplier_{AMEL}$. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

$$MDEL_{human\ health} = AMEL_{human\ health} \times (Multiplier_{MDEL} / Multiplier_{AMEL})$$

For nickel, the following data were used to develop the $MDEL_{human\ health}$:

No. of Samples Per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$	Ratio
4	0.53	3.11	1.55	2.0

For nickel:

$MDEL_{human\ health}$= 4,600 µg/L x 2.0 = 9,200 µg/L

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health as the water-quality based effluent limit for the Order.

The discharge is infrequent and of short duration, therefore AMELs are not included in this Order.

5. **WQBELS based on Basin Plan Objectives**

The Basin Plan Objectives applicable to the Discharger are identified in Table F-7. These objectives were evaluated with respect to effluent monitoring data and Facility operations when considering effluent limitations to be included in this Order.

Table F-7. Applicable Basin Plan Numeric Water Quality Objectives

Constituent	Units	Water Quality Objectives
pH	s.u.	The pH of inland surface waters must be between 6.5 and 8.5 at all times and ambient pH shall not be changed more than 0.5 units from natural conditions.[1]
Ammonia	mg/L	1-hour avg. concentration (mg/L) $= 0.275/(1+10^{7.204-pH}) + 39.4/(1+10^{pH-7.204})$ 30-day avg. concentration (mg/L) $= [0.0577/(1+10^{7.688-pH}) + 2.487/(1+10^{pH-7.688})]$ $x\ MIN\ [2.85, 1.45 \times 10^{0.028 \times (25-T)}]$ 4-hr avg. concentration (mg/L) = 2.5 x 30-day average
Bacteria	MPN/100 ml	*Fresh Waters Designated for Water Contact Recreation (REC-1)* Geometric Means Limits i. E. Coli density shall not exceed 126/100 ml. ii. Fecal coliform density shall not exceed 200/100 ml. Single Sample Limits iii. E. Coli density shall not exceed 235/100 ml iv. Fecal coliform density shall not exceed 400/100 ml
Dissolved Oxygen	mg/L	For all waters, the mean annual dissolved oxygen concentration shall be greater than 7 mg/L, and no single determination shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations.
Turbidity	NTU	Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU increases shall not exceed 10%.

a. **pH.** This Order includes effluent and receiving water limitations for pH to ensure compliance with Basin Plan Objectives for pH applicable to inland surface waters. The objective and limitations are protective of the beneficial use of the receiving water.

b. **Ammonia.** The 1-hour objective for ammonia is based on 2003 Basin Plan Amendment (described in Fact Sheet section II.K) and is dependent on pH and the designation of MIGR. The 30-day average concentration is based on temperature and pH and the presumption that Early Life Stages are present, as determined from the Basin Plan amendment *Revision of Early Life Stage Provision of Freshwater Ammonia Objectives*, effective April 5, 2005. The 4-day average objective is 2.5 times the 30-day objective. No receiving water data were available to calculate objectives and determine reasonable potential. This Order includes effluent and receiving water monitoring requirements to enable future evaluation.

c. **Bacteria**. The Basin Plan Objectives for bacteria in fresh waters designated for REC-1 are identified previously in Table F-6. Because the discharge is composed of storm water and activities at the site are unlikely to contribute bacteria to the discharge, this Order does not include effluent limitations for bacteria. This Order includes receiving water limitations for bacteria in order to protect the contact (REC-1) and non-contact water recreation (REC-2) beneficial use of the receiving water.

d. **Dissolved Oxygen.** This Order applies the water quality objective for dissolved oxygen as a receiving water limitation.

e. **Turbidity**. The Basin Plan requirements for turbidity are as follows:

   i. Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%.

   ii. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

   This Order applies the water quality objective for turbidity as a receiving water limitation in addition to the technology-based effluent limitation.

f. **Temperature.** The Basin Plan lists temperature requirements for the receiving waters and references the Thermal Plan. Based on the requirements of the Thermal Plan and a white paper developed by Regional Water Board staff entitled Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region, a maximum effluent temperature limitation of 86 °F is included in the permit. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel.

6. **Whole Effluent Toxicity (WET)**

WET protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses by aquatic organisms. Detrimental response includes, but is not limited to, decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. This proposed Order contains acute toxicity limitations and monitoring requirements in accordance with the Basin Plan, in which the acute toxicity objective for discharges dictates that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. In addition, the Order establishes thresholds that when exceeded requires the Discharger to conduct accelerated toxicity testing and/or conduct toxicity reduction evaluation (TRE) and toxicity identification evaluation (TIE) studies.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. The discharges from the Facility are infrequent and typically short-term. The discharges at the Facility are not expected to contribute to long-term effects, therefore no chronic toxicity limitations or monitoring requirements are included in this Order. Intermittent discharges are likely to have short-term effects; therefore the Discharger will be required to comply with acute toxicity effluent limitations in accordance with the Basin Plan.

7. **Numeric criterion for TCDD equivalents:**

The CTR establishes a numeric water quality objectives for 2,3,7,8-tetrachlorinated dibenzo-p-dioxin (2,3,7,8-TCDD) for the protection of human health for the consumption of aquatic organisms only, and the consumption of water and aquatic organisms, respectively. When the CTR was promulgated, USEPA stated its support of the regulation of other dioxin and dioxin-like compounds through the use of toxicity equivalencies (TEQs) in NPDES permits. For California waters, USEPA stated specifically, "if the discharge of dioxin or dioxin-like compounds has reasonable potential to cause or contribute to a violation of a narrative criterion, numeric water quality-based effluent limitations for dioxin or dioxin-like compounds should be included in NPDES permits and should be expressed using a TEQ scheme" [65 Fed. Reg. 31682, 31695 (2000)]. This procedure, developed by the

World Health Organization (WHO) in 1988, uses a set of toxicity equivalency factors (TEFs) to convert the concentration of any congener of dioxin or furan into an equivalent concentration of 2,3,7,8-TCDD. When the CTR was promulgated, USEPA also stated that the Agency will continue to assess the risks posed by dioxin to public health and the water quality criteria for dioxin that it had promulgated. To determine if the discharge of dioxin or dioxin-like compounds from the Facility has reasonable potential to cause or contribute to a violation of the Basin Plan's narrative water quality objective regarding bioaccumulation, Regional Water Board staff have therefore used TEFs to express the measured concentrations of 17 dioxin congeners in effluent and background samples as 2,3,7,8-TCDD. These "equivalent" concentrations are then compared to the numeric criterion, established by the CTR for 2,3,7,8-TCDD of 1.4×10^{-8} µg/L.

Dioxin-TEQ (TCDD-equivalent) values reflect the combined effect of numerous dioxin and furan compounds (congeners). The effluent limits implement the *Los Angeles Region (Region 4) Water Quality Control Plan's* (Basin Plan's) bioaccumulation objective:

> "Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health."

According to 40 CFR 122.44(d), where reasonable potential exists for a discharge to cause or contribute to violations of water quality objectives, WQBELs must be established. If the potentially violated objective is narrative, the narrative objective must be translated into an effluent limit. The dioxin-TEQ (TCDD-equivalent) effluent limitations in the permit are numeric translations of the Basin Plan narrative bioaccumulation objective.

The translations are based on relevant scientific information used to weight the congener concentrations with respect to their relative toxicities compared to the toxicity of a particular dioxin congener: 2,3,7,8-TCDD. The World Health Organization developed toxicity equivalency factors (TEFs) to convert congener concentrations into equivalent concentrations of 2,3,7,8-TCDD, which when added together are expressed as dioxin-TEQ (TCDD-equivalent). The SIP specifies that the WHOs 1998 TEFs are to be used to calculate dioxin-TEQs. To complete the translation of the Basin Plan's narrative bioaccumulation objective into a numeric effluent limit, dioxin-TEQ limits are derived from the CTR numeric water quality objective for 2,3,7,8-TCDD (numeric objectives do not exist for the other congeners).

$$\text{Dioxin-TEQ} = \Sigma(C_x \times TEF_x)$$

where:

C_x = concentration of dioxin or furan congener x

TEF_x = TEF for congener x

Table F-8. Toxicity Equivalency Factors

Dioxin or Furan Congener	Toxicity Equivalency Factor (TEF)
2,3,7,8-TCDD	1.0
1,2,3,7,8-PeCDD	1.0
1,2,3,4,7,8-HxCDD	0.1
1,2,3,6,7,8-HxCDD	0.1
1,2,3,7,8,9-HxCDD	0.1
1,2,3,4,6,7,8-HpCDD	0.01
OCDD	0.0001
2,3,7,8-TCDF	0.1
1,2,3,7,8-PeCDF	0.05
2,3,4,7,8-PeCDF	0.5
1,2,3,4,7,8-HxCDF	0.1
1,2,3,6,7,8-HxCDF	0.1
1,2,3,7,8,9-HxCDF	0.1
2,3,4,6,7,8-HxCDF	0.1
1,2,3,4,6,7,8-HpCDF	0.01
1,2,3,4,7,8,9-HpCDF	0.01

8. **Final WQBELs**

Table F-9a. Summary of Final WQBELs for Discharge Point No. 001

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	s.u.	--	--	6.5	8.5
Temperature	°F	--	--	--	86
Acute Toxicity	% Survival	[1]			
Copper, Total Recoverable	µg/L	--	50	--	--
	lbs/day[2]	--	0.18	--	--
Lead, Total Recoverable	µg/L	--	31	--	--
	lbs/day[2]	--	0.11	--	--

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 test shall be at least 90%, and
   ii. No single test shall produce less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E).
2. The mass limitations are based on a maximum flow of 420,000 gpd (0.42 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

Table F-9b. Summary of Final WQBELs for Discharge Point No. 002

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	s.u.	--	--	6.5	8.5
Temperature	°F	--	--	--	86
Acute Toxicity	% Survival	[1]			
Chromium (VI), Total Recoverable	µg/L	--	16	--	--
	lbs/day[2]	--	0.029	--	--
Copper, Total Recoverable	µg/L	--	50	--	--
	lbs/day[2]	--	0.092	--	--
Lead, Total Recoverable	µg/L	--	31	--	--
	lbs/day[2]	--	0.057	--	--
Nickel, Total Recoverable	µg/L	--	277	--	--
	lbs/day[2]	--	0.51	--	--
Zinc, Total Recoverable	µg/L	--	388	--	--
	lbs/day[2]	--	0.71	--	--
Cyanide	µg/L	--	8.5	--	--
	lbs/day[2]	--	0.016	--	--
Beta-BHC	µg/L	--	0.092	--	--
	lbs/day[2]	--	0.00017	--	--
Chlordane	µg/L	--	0.0011	--	--
	lbs/day[2]	--	0.0000020	--	--
4,4'-DDT	µg/L	--	0.0012	--	--
	lbs/day[2]	--	0.0000022	--	--
Polychlorinated Biphenyls (PCBs)[3]	µg/L	--	0.00034	--	--
	lbs/day[2]	--	0.00000062	--	--

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 test shall be at least 90%, and
   ii. No single test shall produce less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E).
2. The mass limitations are based on a maximum flow of 220,000 gpd (0.22 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
3. Polychlorinated Biphenyls (PCBs) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

Table F-9c. Summary of Final WQBELs for Discharge Point No. 003

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	s.u.	--	--	6.5	8.5
Temperature	°F	--	--	--	86
Acute Toxicity	% Survival	[1]			
Copper, Total Recoverable	µg/L	--	50	--	--
	lbs/day[2]	--	0.25	--	--
Cyanide, Total (as CN)	µg/L	--	8.5	--	--
	lbs/day[2]	--	0.042	--	--

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 test shall be at least 90%, and
   ii. No single test shall produce less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E).
2. The mass limitations are based on a maximum flow of 590,000 gpd (0.59 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

Table F-9d. Summary of Final WQBELs for Discharge Point No. 004

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	s.u.	--	--	6.5	8.5
Temperature	°F	--	--	--	86
Acute Toxicity	% Survival	[1]			
Copper, Total Recoverable	µg/L	--	50	--	--
	lbs/day[2]	--	0.30	--	--
Lead, Total Recoverable	µg/L	--	31	--	--
	lbs/day[2]	--	0.18	--	--
Selenium, Total Recoverable	µg/L	--	8.2	--	--
	lbs/day[2]	--	0.049	--	--
Zinc, Total Recoverable	µg/L	--	388	--	--
	lbs/day[2]	--	2.3	--	--

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 test shall be at least 90%, and
   ii. No single test shall produce less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E).
2. The mass limitations are based on a maximum flow of 715,000 gpd (0.715 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

D. Final Effluent Limitations

Section 402(o) of the CWA and section 122.44(l) require that effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Orders based on the submitted sampling data, with some exceptions. Effluent limitations for most constituents are being carried over from the previous Order No. R4-2005-0054. Removal of these numeric limitations would constitute backsliding under CWA section 402(o). The Regional Water Board has determined that these numeric effluent limitations continue to be applicable to the Facility. For some of the effluent limitations carried over from Order No. R4-2005-0054, the number of significant digits has been corrected to be consistent with the CTR, but remain as stringent as the previous Order. This Order includes less stringent limitations for some metals due to a change in receiving water status from saltwater to freshwater. As described below, these limitations are allowable exceptions under 40 CFR 122.44(l). Also stemming from the use of freshwater criteria, this Order includes a new effluent limitation for selenium at Discharge Point No. 004. This Order includes a new effluent limitation for temperature, based on the Basin Plan Thermal Plan, and a White Paper, as discussed in section IV.C.5 of this Fact Sheet.

1. Satisfaction of Anti-Backsliding Requirements

Effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order with the exceptions of some metals and cyanide as identified in Table F-10. State and federal anti-backsliding regulations require that effluent limitations established in new permits be at least as stringent as the effluent limitations in the previous permit, with some exceptions. In accordance with 40 CFR 122.44(l)(2)(B)(i), less stringent limitations are allowed when based on new information that was not available at the time of the original permit issuance which would have justified less stringent limitations at the time of permit issuance. At the time of issuance of Order No. R4-2006-0054, information on salinity within the Los Alamitos Channel was unavailable and the need for effluent limitations were evaluated based on the saltwater status of the downstream estuary. As discussed in the Fact Sheet section IV.C.2, new receiving water salinity data indicates the Los Alamitos Channel is freshwater and as a result, the Regional Water Board reevaluated the need for effluent limitations using the appropriate CTR freshwater, aquatic life criteria. In cases where reasonable potential exists using the freshwater criteria, the resulting effluent limitations are less stringent for some metals, and in some cases effluent limitations are unnecessary due to lack of reasonable potential. Two exceptions are hexavalent chromium, for which a more stringent limitation is applied at Discharge Point No. 002; and selenium, for which a new effluent limitation is applied at Discharge Point No. 004. The salinity data indicating freshwater status of the Los Alamitos Channel constitutes new information and as such, justifies the less stringent limitations for parameters identified in Table F-10.

Table F-10. Less Stringent Limitations Based on CTR, Freshwater Aquatic Life Criteria

Discharge Point No.	Less Stringent Effluent Limitations	Removed Limit (No Reasonable Potential)
001	Copper, Lead	Nickel, Zinc, and Cyanide
002	Copper, Lead, Nickel, Zinc, Cyanide	Arsenic
003	Copper, Cyanide	Lead, Nickel, Zinc
004	Copper, Lead, Zinc	Nickel

Discharges from the Facility occur during rain events, whereby they commingle with multiple other sources within the Los Alamitos Channel. The commingled storm water in the channel is then retained within the LARB and released at a controlled rate to the San Gabriel River Estuary. Because of physical, chemical and biological processes involved en route, a discharge from the Facility that meets the freshwater aquatic life criteria will have little influence on discharges from the LARB and is unlikely to cause or contribute to exceedances of marine aquatic life criteria within the estuary.

The concentration-based effluent limitation for beta-BHC at Discharge Point No. 002 is less stringent than in Order No. R4-2006-0054. This change is a result of rounding; all other data and calculation procedures used to establish the limitation is the same as in Order No. R4-2006-0054. Under 40 CFR 122.44(l)(2)(i)(B)(2) less stringent limitations are allowable when correcting technical mistakes or mistaken interpretations of law. Because CTR criteria are specified at two significant figures, the calculated effluent limitations from Order No. R4-2006-0054 are corrected to include two significant figures. The requirements of this Order are consistent with applicable State and federal anti-backsliding requirements.

2. **Satisfaction of Antidegradation Policy**

Section 131.12 requires that the state water quality standards include an anti-degradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies.

As described in the Fact Sheet section IV.D.2, this Order includes less stringent effluent limitations for some metals and cyanide, as previously identified in Table F-10. Although less stringent than in the previous Order, these limitations are based on CTR water quality criteria and are protective of the beneficial uses of the receiving water. The discharge is not expected to result in a significant increase in pollutant loading because the discharge only occurs during storm events, is

intermittent, and of short duration. Furthermore, the allowable flow rate is equal to the previous Order. Based on these factors, the Regional Water Board believes the relaxed effluent limitations will hold the Discharger to the existing treatment level and will not result in a lowering of water quality.

The permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16. The final limitations in this Order are in compliance with antidegradation requirements and meet the requirements of the SIP because these limits hold the Discharger to performance levels that will not cause or contribute to water quality impairment or water quality degradation that could result from an increase in permitted design flow or a reduction in the level of treatment. Further, compliance with these requirements will result in the use of best practicable treatment or control of the discharge.

3. **Stringency of Requirements for Individual Pollutants**

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on TSS, oil and grease, BOD, phenol, settleable solids, TPH, and turbidity at Discharge Point Nos. 001, 002, 003, and 004. Restrictions on these parameters are discussed in section IV.B.2 of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. These limitations are not more stringent than required by the CWA.

This Order includes WQBELs for pH, temperature, acute toxicity, copper, lead, nickel, and zinc, at Discharge Point Nos. 001-004; cyanide at Discharge Point Nos. 001, 002, and 003; and arsenic, chromium (VI), beta-BHC, chlordane, 4,4'-DDT, and PCBs at Discharge Point No. 002. Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to part 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Table F-11a. Summary of Final Effluent Limitations for Discharge Point No. 001

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
pH	s.u.	--	--	6.5	8.5	E, BP
BOD	mg/L	--	30	--	--	E, BPJ
	lbs/day[2]	--	105.1	--	--	
Oil and Grease	mg/L	--	15	--	--	E, BPJ
	lbs/day[2]	--	52.5	--	--	
TSS	mg/L	--	75	--	--	E, BPJ
	lbs/day[2]	--	263	--	--	
Non-Conventional Pollutants						
Temperature	°F	--	--	--	86	BP, TP, WP
Phenol	µg/L	--	1,000	--	--	E, BPJ
	lbs/day[2]	--	3.5	--	--	
Settleable Solids	ml/L	--	0.3	--	--	E, BPJ
TPH[3]	µg/L	--	100	--	--	E, BPJ
	lbs/day[2]	--	0.35	--	--	
Turbidity	NTU	--	75	--	--	E, BPJ
Acute Toxicity	% Survival	[4]				E, BP
Priority Pollutants						
Copper, Total Recoverable	µg/L	--	50	--	--	CTR
	lbs/day[2]	--	0.18	--	--	
Lead, Total Recoverable	µg/L	--	31	--	--	CTR
	lbs/day[2]	--	0.11	--	--	

1 BP = Basin Plan; TP = Thermal Plan; E = Existing Order; BPJ = Best Professional Judgment; CTR = California Toxic Rule; SIP = State Implementation Policy, and WP = White Paper.

2 The mass limitations are based on a maximum flow of 420,000 gpd (0.42 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

3 TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH oil (C_{23+})

4 The acute toxicity of the effluent shall be such that:

iii. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay test shall be at least 90%, and

iv. No single test shall produce less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E).

Table F-11b. Summary of Final Effluent Limitations for Discharge Point No. 002

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
pH	s.u.	--	--	6.5	8.5	E, BP
BOD	ug/L	--	30	--	--	E, BPJ
	lbs/day[2]	--	55	--	--	
Oil and Grease	mg/L	--	15	--	--	E, BPJ
	lbs/day[2]	--	28	--	--	
TSS	mg/L	--	75	--	--	E, BPJ
	lbs/day[2]	--	138	--	--	
Non-Conventional Pollutants						
Temperature	°F	--	--	--	86	BP, TP, WP
Phenol	µg/L	--	1,000	--	--	E, BPJ
	lbs/day[2]	--	1.83	--	--	
Settleable Solids	ml/L	--	0.3	--	--	E, BPJ
TPH[3]	µg/L	--	100	--	--	E, BPJ
	lbs/day[2]	--	0.183	--	--	
Turbidity	NTU	--	75	--	--	E, BPJ
Acute Toxicity	% Survival	[4]				E, BP
Priority Pollutants						
Chromium (VI), Total Recoverable	µg/L	--	16	--	--	CTR
	lbs/day[2]	--	0.029	--	--	
Copper, Total Recoverable	µg/L	--	50	--	--	CTR
	lbs/day[2]	--	0.092	--	--	
Lead, Total Recoverable	µg/L	--	31	--	--	CTR
	lbs/day[2]	--	0.057	--	--	
Nickel, Total Recoverable	µg/L	--	277	--	--	CTR
	lbs/day[2]	--	0.51	--	--	
Zinc, Total Recoverable	µg/L	--	388	--	--	CTR
	lbs/day[2]	--	0.71	--	--	
Cyanide	µg/L	--	8.5	--	--	CTR
	lbs/day[2]	--	0.016	--	--	
Beta-BHC	µg/L	--	0.092	--	--	E, CTR
	lbs/day[2]	--	0.00017	--	--	
Chlordane	µg/L	--	0.0011	--	--	E, CTR
	lbs/day[2]	--	0.0000020	--	--	
4,4'-DDT	µg/L	--	0.0012	--	--	E, CTR

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
	lbs/day[2]	--	0.0000022	--	--	
Polychlorinated Biphenyls (PCBs)[5]	µg/L	--	0.00034	--	--	E, CTR
	lbs/day[2]	--	0.00000062	--	--	

[1] BP = Basin Plan; TP = Thermal Plan; E = Existing Order; BPJ = Best Professional Judgment; CTR = California Toxic Rule; SIP = State Implementation Policy, and WP = White Paper.

[2] The mass limitations are based on a maximum flow of 220,000 gpd (0.22 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

[3] TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH oil (C_{23+})

[4] 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 test shall be at least 90%, and

ii. No single test shall produce less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E).

[5] PCBs shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

Table F-11c. Summary of Final Effluent Limitations for Discharge Point No. 003

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
pH	s.u.	--	--	6.5	8.5	E, BP
BOD	mg/L	--	30	--	--	E, BPJ
	lbs/day[2]	--	148	--	--	
Oil and Grease	mg/L	--	15	--	--	E, BPJ
	lbs/day[2]	--	74	--	--	
TSS	mg/L	--	75	--	--	E, BPJ
	lbs/day[2]	--	369	--	--	
Non-Conventional Pollutants						
Temperature	°F	--	--	--	86	BP, TP, WP
Phenol	µg/L	--	1,000	--	--	E, BPJ
	lbs/day[2]	--	4.92	--	--	
Settleable Solids	ml/L	--	0.3	--	--	E, BPJ
TPH[3]	µg/L	--	100	--	--	E, BPJ
	lbs/day[2]	--	0.492	--	--	
Turbidity	NTU	--	75	--	--	E, BPJ
Acute Toxicity	% Survival	[4]				E, BP
Priority Pollutants						
Copper, Total	µg/L	--	50	--	--	CTR

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Recoverable	lbs/day[2]	--	0.25	--	--	
Cyanide, Total (as CN)	µg/L	--	8.5	--	--	CTR
	lbs/day[2]	--	0.042	--	--	

[1] BP = Basin Plan; TP = Thermal Plan; E = Existing Order; BPJ = Best Professional Judgment; CTR = California Toxic Rule; SIP = State Implementation Policy, and WP = White Paper.
[2] The mass limitations are based on a maximum flow of 590,000 gpd (0.59 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
[3] TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH oil (C_{23+})
[4] 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 test shall be at least 90%, and
ii. No single test shall produce less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E).

Table F-11d. Summary of Final Effluent Limitations for Discharge Point No. 004

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
pH	s.u.	--	--	6.5	8.5	E, BP
BOD	mg/L	--	30	--	--	E, BPJ
	lbs/day[2]	--	179	--	--	
Oil and Grease	mg/L	--	15	--	--	E, BPJ
	lbs/day[2]	--	89.4	--	--	
TSS	mg/L	--	75	--	--	E, BPJ
	lbs/day[2]	--	447	--	--	
Non-Conventional Pollutants						
Temperature	°F	--	--	--	86	BP, TP, WP
Phenol	µg/L	--	1,000	--	--	E, BPJ
	lbs/day[2]	--	6.0	--	--	
Settleable Solids	ml/L	--	0.3	--	--	E, BPJ
TPH[3]	µg/L	--	100	--	--	E, BPJ
	lbs/day[2]	--	0.60	--	--	
Turbidity	NTU	--	75	--	--	E, BPJ
Acute Toxicity	% Survival	[4]				E, BP
Priority Pollutants						
Copper, Total Recoverable	µg/L	--	50	--	--	CTR
	lbs/day[2]	--	0.30	--	--	

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Lead, Total Recoverable	µg/L	--	31	--	--	CTR
	lbs/day[2]	--	0.18	--	--	
Selenium, Total Recoverable	µg/L	--	8.2	--	--	CTR
	lbs/day[2]	--	0.049	--	--	
Zinc, Total Recoverable	µg/L	--	388	--	--	CTR
	lbs/day[2]	--	23	--	--	

[1] BP = Basin Plan; TP = Thermal Plan; E = Existing Order; BPJ = Best Professional Judgment; CTR = California Toxic Rule; SIP = State Implementation Policy, and WP = White Paper.

[2] The mass limitations are based on a maximum flow of 715,000 gpd (0.715 MGD) and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

[3] TPH equals the sum of TPH gasoline (C_4-C_{12}), TPH diesel (C_{13}-C_{22}), and TPH oil (C_{23+})

[4] 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 test shall be at least 90%, and

ii. No single test shall produce less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in section V of the MRP (Attachment E).

4. **Mass-based Effluent Limitations**

Mass-based effluent limitations are established using the following formula:

Mass (lbs/day) = flow rate (MGD) x 8.34 x effluent limitation (mg/L)
where: Mass = mass limitation for a pollutant (lbs/day)
Effluent limitation = concentration limit for a pollutant (mg/L)
Flow rate = discharge flow rate (MGD)

E. Interim Effluent Limitations

Not Applicable

F. Land Discharge Specifications

Not Applicable

G. Reclamation Specifications

Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (section 131.12) and State Water Board Resolution No. 68-16. This Order revises the receiving water requirements for pH and bacteria to reflect the freshwater status of the receiving

water. Receiving water limitations in this Order are included to ensure protection of beneficial uses of the receiving water and are based on the water quality objectives contained in the Basin Plan.

B. **Groundwater**

Not Applicable

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. **Influent Monitoring**

Not Applicable

B. **Effluent Monitoring**

Monitoring for pollutants expected to be present in the discharge will be required as established in the tentative MRP (Attachment E).

To demonstrate compliance with established effluent limitations, the Order establishes monitoring at a frequency of once per discharge event, with a maximum of once per month at Discharge Point Nos. 001, 002, 003, and 004 for pollutants which have effluent limitations.

This Order includes new monitoring requirements at Discharge Point Nos. 001 through 004 for ammonia, bacteria, sulfides, benzene, ethylbenzene, xylene, toluene, and MTBE, as these are pollutants of concern commonly found at petroleum storage sites. In addition, the San Gabriel River Estuary is listed as impaired for dioxin; therefore, this Order establishes new effluent monitoring requirements for TCDD equivalents at Discharge Point Nos. 001 through 004.

The SIP states that the Regional Water Board will require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established. This tentative Order requires the Discharger to conduct annual monitoring for all CTR priority pollutants and TCDD Equivalents, as listed in the MRP (Attachment E), in the effluent for the life of the permit. The Regional Water Board will use the additional data to conduct an RPA and determine if additional WQBELs are required. The Regional Water Board may reopen the permit to incorporate additional effluent limitations and requirements, if necessary.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. This Order includes limitations for acute toxicity and therefore, monitoring requirements are included in the MRP to determine compliance with the effluent limitations established in Limitations and Discharge Requirements, Effluent Limitations, section IV.A.

Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. The discharges from the Facility are intermittent and short in nature; therefore, chronic toxicity testing will not be required.

D. Receiving Water Monitoring

1. Surface Water

This Order changes the receiving water monitoring location from the San Gabriel River Estuary to the Los Alamitos Channel. Water quality criteria and beneficial uses are applicable within the Los Alamitos Channel, therefore the receiving water monitoring should provide information on the background and assimilative capacity within this water body. This Order carries over the monitoring requirements for R-001, renamed RSW-001. In addition, this Order requires additional upstream receiving water monitoring for ammonia, as this is a pollutant of concern commonly associated with storm water runoff. Upstream ammonia concentrations may be used to determine the assimilative capacity of the receiving water. In order to adjust the ammonia water quality objective, expressed as un-ionized, to total ammonia, this Order requires new monitoring for pH and temperature at a location immediately downstream of the discharge, as specified in the Basin Plan. This new location is identified as RSW-002 in the MRP (Attachment E).

According to the SIP, the Discharger is required to monitor the upstream receiving water for the CTR priority pollutants, to determine reasonable potential. Accordingly, the Regional Water Board is requiring the Discharger to conduct upstream receiving water monitoring of the CTR priority pollutants at Monitoring Location RSW-001. The San Gabriel River Estuary is identified as being impaired for dissolved oxygen and dioxin (2,3,7,8-TCDD). This Order includes new receiving water monitoring requirements for these constituents to evaluate potential impacts caused by the discharge and for use in future reasonable potential analyses. Additionally, the Discharger must analyze pH, salinity, and hardness of the upstream receiving water at the same time as the samples are collected for priority pollutants analysis for use in determination of appropriate criteria and calculation of hardness and pH dependent criteria.

2. Groundwater

Not Applicable

E. Other Monitoring Requirements

1. Because the discharge is comprised of storm water runoff, the Discharger is required to measure and record the rainfall each day of the month. The Discharger is also required to conduct visual observations of all storm water discharges in the vicinity of the discharge to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor (section IX.A of the MRP).

2. The Discharger is required by Special Provision VI.C.3 of the Order to update and implement a SWPPP, BMPs, and SPCC Plan. Section IX.B. of the MRP requires the Discharger to report on the effectiveness of the plans and update them as needed to ensure all actual or potential sources of pollutants in the wastewater and storm water discharged from the Facility are addressed.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

These provisions are based on section 123 and the previous Order. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new federal regulations, modification in toxicity requirements, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan.

2. Special Studies and Additional Monitoring Requirements

a. Initial Investigation Toxicity Reduction Evaluation Workplan. This provision is based on section 4 of the SIP, Toxicity Control Provisions.

3. **Best Management Practices and Pollution Prevention**

   a. Storm Water Pollution Prevention Plan. The previous Order required the Discharger to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). This Order will require the Discharger to update and continue to implement a SWPPP. The SWPPP will outline site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into the Los Alamitos Channel and/or San Gabriel River Estuary. At a minimum, the management practices should ensure that raw materials and chemicals do not come into contact with storm water. SWPPP requirements are included as Attachment G, based on 40 CFR section 122.44(k).

   As a component of the SWPPP, the previous Order required the Discharger to develop and implement BMPs. This proposed Order will require the Discharger to update and continue to implement BMPs. The purpose of identifying BMPs is to establish site-specific procedures that ensure proper operation of the Facility. Further, the Discharger shall assure that unauthorized discharges (i.e., spills) to the receiving water have been effectively prohibited. BMPs shall be consistent with the general guidance contained in the U.S. EPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004).

   b. **Spill Prevention Control and Countermeasures Plan.** As specified in 40 CFR part 112, the owner or operator of an aboveground storage tank which stores more than 1,320 gallons of oil is required to submit an SPCC plan, with some exceptions. Order No. R4-2006-0054 required the Facility to develop and implement an SPCC plan. This Order requires the Discharger to continue to implement an SPCC Plan for the Facility. The Discharger shall review and update, if necessary, the SPCC after each incident and make it available for the facility personnel at all times.

4. **Construction, Operation, and Maintenance Specifications**

   This provision is based on the requirements of section 122.41(e) and the previous Order.

5. **Special Provisions for Municipal Facilities (POTWs Only)**

   Not Applicable

6. **Other Special Provisions**

   Not Applicable

7. **Compliance Schedules**

   Not Applicable

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the Haynes Tank Farm Tanks A-J. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

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

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments must be received at the Regional Water Board offices by 5:00 p.m. on October 3, 2011.

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: December 8, 2011
Time: 9 A.M.
Location: City of Glendale Council Chambers
613 E. Broadway
Glendale, California

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is **http://www.waterboards.ca.gov/losangeles** where you can access the current agenda for changes in dates and locations.

D. Nature of Hearing

This will be a formal adjudicative hearing pursuant to section 648 et seq. of title 23 of the California Code of Regulations. Chapter 5 of the California Administrative Procedure Act (commencing with section 11500 of the Government Code) will not apply to this proceeding.

Ex Parte Communications Prohibited: As a quasi-adjudicative proceeding, no board member may discuss the subject of this hearing with any person, except during the public hearing itself. Any communications to the Regional Water Board must be directed to staff.

E. Parties to the Hearing

The following are the parties to this proceeding:

1. The applicant/permittee

Any other persons requesting party status must submit a written or electronic request to staff not later than 20 business days before the hearing. All parties will be notified if other persons are so designated.

F. Public Comments and Submittal of Evidence

Persons wishing to comment upon or object to the tentative waste discharge requirements, or submit evidence for the Board to consider, are invited to submit them in writing to the above address. To be evaluated and responded to by staff, included in the Board's agenda folder, and fully considered by the Board, written comments must be received no later than close of business October 3, 2011. Comments or evidence received after that date will be submitted, ex agenda, to the Board for consideration, but only included in administrative record with express approval of the Chair during the hearing. Additionally, if the Board receives only supportive comments, the permit may be placed on the Board's consent calendar, and approved without an oral testimony.

G. Hearing Procedure

The meeting, in which the hearing will be a part of, will start at 9:00 a.m. Interested persons are invited to attend. Staff will present the matter under consideration, after which oral statements from parties or interested persons will be heard. For accuracy of the record, all important testimony should be in writing. The Board will include in the administrative record written transcriptions of oral testimony that is actually presented at the hearing. Oral testimony may be limited to 3 minutes maximum or less for each speaker, depending on the number of persons wishing to be heard. Parties or persons with similar concerns or opinions are encouraged to choose one representative to speak. At the conclusion of testimony, the Board will deliberate in open or close session, and render a decision.

Parties or persons with special procedural requests should contact staff. Any procedure not specified in this hearing notice will be waived pursuant to section 648(d) of title 23 of

the California Code of Regulations. Objections to any procedure to be used during this hearing must be submitted in writing not later than close of 15 business days prior to the date of the hearing. Procedural objections will not be entertained at the hearing.

H. **Waste Discharge Requirements Petitions**

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

I. **Information and Copying**

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (213) 576 – 6600.

J. **Register of Interested Persons**

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

K. **Additional Information**

Requests for additional information or questions regarding this order should be directed to Namiraj Jain at (213) 620-6003**.**

ATTACHMENT G – STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

I. Implementation Schedule

A storm water pollution prevention plan (SWPPP) shall be developed and submitted to the Regional Water Board within 90 days following the adoption of this Order. The SWPPP shall be implemented for each facility covered by this Permit within 10 days of approval from the Regional Water Board, or 6-months from the date of the submittal of the SWPPP to the Regional Water Board (whichever comes first).

II. Objectives

The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site- specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, over-head coverage.) To achieve these objectives, facility operators should consider the five phase process for SWPPP development and implementation as shown in Table A.

The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.

A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

III. Planning and Organization

A. Pollution Prevention Team

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in Attachment E of this Permit. The SWPPP shall clearly identify the Permit related responsibilities, duties, and activities of each team member. For small facilities, storm water pollution prevention teams may consist of one individual where appropriate.

B. Review Other Requirements and Existing Facility Plans

The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this General Permit. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this Permit. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

IV. Site Map

The SWPPP shall include a site map. The site map shall be provided on an 8-½ x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

TABLE A
FIVE PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL STORM WATER POLLUTION PREVENTION PLANS

PLANNING AND ORGANIZATION
Form Pollution Prevention Team
Review other plans

ASSESSMENT PHASE
Develop a site map
Identify potential pollutant sources
Inventory of materials and chemicals
List significant spills and leaks
Identify non-storm water discharges
Assess pollutant risks

BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE
Non-structural BMPs
Structural BMPs
Select activity and site-specific BMPs

IMPLEMENTATION PHASE

Train employees
Implement BMPs
Conduct recordkeeping and reporting

EVALUATION / MONITORING

Conduct annual site evaluation
Review monitoring information
Evaluate BMPs
Review and revise SWPPP

The following information shall be included on the site map:

A. The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, and ponds) and municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.

B. The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.

C. An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.

D. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in Section A.6.a.iv. below have occurred.

E. Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

V. List of Significant Materials

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, describe the locations where the material is being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials

shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

VI. Description of Potential Pollutant Sources

A. The SWPPP shall include a narrative description of the facility's industrial activities, as identified in Section A.4.e above, associated potential pollutant sources, and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. At a minimum, the following items related to a facility's industrial activities shall be considered:

1. **Industrial Processes.** Describe each industrial process, the type, characteristics, and quantity of significant materials used in or resulting from the process, and a description of the manufacturing, cleaning, rinsing, recycling, disposal, or other activities related to the process. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

2. **Material Handling and Storage Areas.** Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

3. **Dust and Particulate Generating Activities.** Describe all industrial activities that generate dust or particulates that may be deposited within the facility's boundaries and identify their discharge locations; the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.

4. **Significant Spills and Leaks.** Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR, Part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (USEPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 Code of Federal Regulations [CFR], Parts 110, 117, and 302).

   The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. Such list shall be updated as appropriate during the term of this Permit.

5. **Non-Storm Water Discharges.** Facility operators shall investigate the facility to identify all non-storm water discharges and their sources. As part of this

investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

All non-storm water discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

Non-storm water discharges (other boiler blowdown and boiler condensate permitted under the Order) that contain significant quantities of pollutants or that do not meet the conditions provided in Special Conditions D of the storm water general permit are prohibited by this Permit (Examples of prohibited non-storm water discharges are contact and non-contact cooling water, rinse water, wash water, etc.). Non-storm water discharges that meet the conditions provided in Special Condition D of the general storm water permit are authorized by this Permit. The SWPPP must include BMPs to prevent or reduce contact of non-storm water discharges with significant materials or equipment.

6. **Soil Erosion.** Describe the facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.

B. The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and potential pollutants. This information should be summarized similar to Table B. The last column of Table B, "Control Practices", should be completed in accordance with Section A.8. below.

VII. Assessment of Potential Pollutant Sources

A. The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in A.6. above to determine:

1. Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and

2. Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.

B. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in section VIII below.

VIII. Storm Water Best Management Practices

The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (Sections A.6. and 7. above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

TABLE B

EXAMPLE
ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES SUMMARY

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery. Spills caused by topping off fuel tanks. Hosing or washing down fuel oil fuel area. Leaking storage tanks. Rainfall running off fuel oil, and rainfall running onto and off fueling area.	fuel oil	Use spill and overflow protection. Minimize run-on of storm water into the fueling area. Cover fueling area. Use dry cleanup methods rather than hosing down area. Implement proper spill prevention control program. Implement adequate preventative maintenance program to preventive tank and line leaks. Inspect fueling areas regularly to detect problems before they occur. Train employees on proper fueling, cleanup, and spill response techniques.

The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The description shall also include a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. The SWPPP shall provide a summary of all BMPs implemented for each pollutant source. This information should be summarized similar to Table B.

Facility operators shall consider the following BMPs for implementation at the facility:

A. Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-structural BMPs options before considering additional

structural BMPs (see Section A.8.b. below). Below is a list of non-structural BMPs that should be considered:

1. **Good Housekeeping.** Good housekeeping generally consists of practical procedures to maintain a clean and orderly facility.

2. **Preventive Maintenance.** Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.

3. **Spill Response.** This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.

4. **Material Handling and Storage.** This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.

5. **Employee Training.** This includes training of personnel who are responsible for (1) implementing activities identified in the SWPPP, (2) conducting inspections, sampling, and visual observations, and (3) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.

6. **Waste Handling/Recycling.** This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.

7. **Recordkeeping and Internal Reporting.** This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.

8. **Erosion Control and Site Stabilization.** This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.

9. **Inspections.** This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.

10. **Quality Assurance.** This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

B. Structural BMPs.

Where non-structural BMPs as identified in Section A.8.a. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of structural BMPs that should be considered:

1. **Overhead Coverage.** This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.

2. **Retention Ponds.** This includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow storm water to discharge from the facility.

3. **Control Devices.** This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.

4. **Secondary Containment Structures.** This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.

5. **Treatment.** This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc. that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

IX. Annual Comprehensive Site Compliance Evaluation

The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1-June 30). Evaluations shall be conducted within 8-16 months of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following:

A. A review of all visual observation records, inspection records, and sampling and analysis results.

B. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.

C. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.

D. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule, as required in Section A.10.e, for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and (vi) a certification that

the facility operator is in compliance with this Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this General Permit. The evaluation report shall be submitted as part of the annual report, retained for at least five years, and signed and certified in accordance with Standard Provisions V.D.5 of Attachment D.

X. SWPPP General Requirements

A. The SWPPP shall be retained on site and made available upon request of a representative of the Regional Water Board and/or local storm water management agency (local agency) which receives the storm water discharges.

B. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this Section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.

C. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.

D. The SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this Permit.

E. When any part of the SWPPP is infeasible to implement due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.

F. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.

ATTACHMENT H – STATE WATER BOARD MINIMUM LEVELS

The Minimum Levels (MLs) in this appendix are for use in reporting and compliance determination purposes in accordance with section 2.4 of the State Implementation Policy. These MLs were derived from data for priority pollutants provided by State certified analytical laboratories in 1997 and 1998. These MLs shall be used until new values are adopted by the State Water Board and become effective. The following tables (Tables 2a - 2d) present MLs for four major chemical groupings: volatile substances, semi-volatile substances, inorganics, and pesticides and PCBs.

Table 2a - VOLATILE SUBSTANCES*	GC	GCMS
1,1 Dichloroethane	0.5	1
1,1 Dichloroethylene	0.5	2
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
1,2 Dichlorobenzene (volatile)	0.5	2
1,2 Dichloroethane	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichlorobenzene (volatile)	0.5	2
1,3 Dichloropropene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Methyl Bromide	1.0	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromo-methane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Chloromethane	0.5	2
Dichlorobromo-methane	0.5	2
Dichloromethane	0.5	2
Ethylbenzene	0.5	2
Tetrachloroethylene	0.5	2
Toluene	0.5	2
Trans-1,2 Dichloroethylene	0.5	1
Trichloroethene	0.5	2
Vinyl Chloride	0.5	2

*The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Benzo (a) Anthracene	10	5		
1,2 Dichlorobenzene (semivolatile)	2	2		
1,2 Diphenylhydrazine		1		
1,2,4 Trichlorobenzene	1	5		
1,3 Dichlorobenzene (semivolatile)	2	1		

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
1,4 Dichlorobenzene (semivolatile)	2	1		
2 Chlorophenol	2	5		
2,4 Dichlorophenol	1	5		
2,4 Dimethylphenol	1	2		
2,4 Dinitrophenol	5	5		
2,4 Dinitrotoluene	10	5		
2,4,6 Trichlorophenol	10	10		
2,6 Dinitrotoluene		5		
2- Nitrophenol		10		
2-Chloroethyl vinyl ether	1	1		
2-Chloronaphthalene		10		
3,3' Dichlorobenzidine		5		
Benzo (b) Fluoranthene		10	10	
3-Methyl-Chlorophenol	5	1		
4,6 Dinitro-2-methylphenol	10	5		
4- Nitrophenol	5	10		
4-Bromophenyl phenyl ether	10	5		
4-Chlorophenyl phenyl ether		5		
Acenaphthene	1	1	0.5	
Acenaphthylene		10	0.2	
Anthracene		10	2	
Benzidine		5		
Benzo(a) pyrene		10	2	
Benzo(g,h,i)perylene		5	0.1	
Benzo(k)fluoranthene		10	2	
bis 2-(1-Chloroethoxyl) methane		5		
bis(2-chloroethyl) ether	10	1		
bis(2-Chloroisopropyl) ether	10	2		
bis(2-Ethylhexyl) phthalate	10	5		
Butyl benzyl phthalate	10	10		
Chrysene		10	5	
di-n-Butyl phthalate		10		
di-n-Octyl phthalate		10		
Dibenzo(a,h)-anthracene		10	0.1	
Diethyl phthalate	10	2		
Dimethyl phthalate	10	2		
Fluoranthene	10	1	0.05	
Fluorene		10	0.1	
Hexachloro-cyclopentadiene	5	5		
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
N-Nitroso diphenyl amine	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
Pentachlorophenol	1	5		
Phenanthrene		5	0.05	
Phenol **	1	1		50
Pyrene		10	0.05	

* With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1,000; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1,000.

** Phenol by colorimetric technique has a factor of 1.

Table 2c – INORGANICS*	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1,000
Arsenic		2	10	2	2	1		20	1,000
Beryllium	20	0.5	2	0.5	1				1,000
Cadmium	10	0.5	10	0.25	0.5				1,000
Chromium (total)	50	2	10	0.5	1				1,000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1,000
Cyanide								5	
Lead	20	5	5	0.5	2				10,000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1,000
Selenium		5	10	2	5	1			1,000
Silver	10	1	10	0.25	2				1,000
Thallium	10	2	10	1	5				1,000
Zinc	20		20	1	10				1,000

* The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2d – PESTICIDES – PCBs*	GC
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
a-Endosulfan	0.02
alpha-BHC	0.01
Aldrin	0.005
b-Endosulfan	0.01
Beta-BHC	0.005
Chlordane	0.1
Delta-BHC	0.005
Dieldrin	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Gamma-BHC (Lindane)	0.02
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5

Table 2d – PESTICIDES – PCBs*	GC
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

* The normal method-specific factor for these substances is 100; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.

Techniques:

GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma
ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR – Colorimetric

ATTACHMENT I – LIST OF PRIORITY POLLUTANTS

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
1	Antimony	7440360	[1]
2	Arsenic	7440382	[1]
3	Beryllium	7440417	[1]
4	Cadmium	7440439	[1]
5a	Chromium (III)	16065831	[1]
5a	Chromium (VI)	18540299	[1]
6	Copper	7440508	[1]
7	Lead	7439921	[1]
8	Mercury	7439976	[1]
9	Nickel	7440020	[1]
10	Selenium	7782492	[1]
11	Silver	7440224	[1]
12	Thallium	7440280	[1]
13	Zinc	7440666	[1]
14	Cyanide	57125	[1]
15	Asbestos	1332214	[1]
16	2,3,7,8-TCDD	1746016	[1]
17	Acrolein	107028	[1]
18	Acrylonitrile	107131	[1]
19	Benzene	71432	[1]
20	Bromoform	75252	[1]
21	Carbon Tetrachloride	56235	[1]
22	Chlorobenzene	108907	[1]
23	Chlorodibromomethane	124481	[1]
24	Chloroethane	75003	[1]
25	2-Chloroethylvinyl Ether	110758	[1]
26	Chloroform	67663	[1]
27	Dichlorobromomethane	75274	[1]
28	1,1-Dichloroethane	75343	[1]
29	1,2-Dichloroethane	107062	[1]
30	1,1-Dichloroethylene	75354	[1]
31	1,2-Dichloropropane	78875	[1]
32	1,3-Dichloropropylene	542756	[1]
33	Ethylbenzene	100414	[1]
34	Methyl Bromide	74839	[1]
35	Methyl Chloride	74873	[1]
36	Methylene Chloride	75092	[1]
37	1,1,2,2-Tetrachloroethane	79345	[1]
38	Tetrachloroethylene	127184	[1]
39	Toluene	108883	[1]
40	1,2-Trans-Dichloroethylene	156605	[1]
41	1,1,1-Trichloroethane	71556	[1]
42	1,12-Trichloroethane	79005	[1]
43	Trichloroethylene	79016	[1]

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
44	Vinyl Chloride	75014	[1]
45	2-Chlorophenol	95578	[1]
46	2,4-Dichlorophenol	120832	[1]
47	2,4-Dimethylphenol	105679	[1]
48	2-Methyl-4,6-Dinitrophenol	534521	[1]
49	2,4-Dinitrophenol	51285	[1]
50	2-Nitrophenol	88755	[1]
51	4-Nitrophenol	100027	[1]
52	3-Methyl-4-Chlorophenol	59507	[1]
53	Pentachlorophenol	87865	[1]
54	Phenol	108952	[1]
55	2,4,6-Trichlorophenol	88062	[1]
56	Acenaphthene	83329	[1]
57	Acenaphthylene	208968	[1]
58	Anthracene	120127	[1]
59	Benzidine	92875	[1]
60	Benzo(a)Anthracene	56553	[1]
61	Benzo(a)Pyrene	50328	[1]
62	Benzo(b)Fluoranthene	205992	[1]
63	Benzo(ghi)Perylene	191242	[1]
64	Benzo(k)Fluoranthene	207089	[1]
65	Bis(2-Chloroethoxy)Methane	111911	[1]
66	Bis(2-Chloroethyl)Ether	111444	[1]
67	Bis(2-Chloroisopropyl)Ether	108601	[1]
68	Bis(2-Ethylhexyl)Phthalate	117817	[1]
69	4-Bromophenyl Phenyl Ether	101553	[1]
70	Butylbenzyl Phthalate	85687	[1]
71	2-Chloronaphthalene	91587	[1]
72	4-Chlorophenyl Phenyl Ether	7005723	[1]
73	Chrysene	218019	[1]
74	Dibenzo(a,h)Anthracene	53703	[1]
75	1,2-Dichlorobenzene	95501	[1]
76	1,3-Dichlorobenzene	541731	[1]
77	1,4-Dichlorobenzene	106467	[1]
78	3,3'-Dichlorobenzidine	91941	[1]
79	Diethyl Phthalate	84662	[1]
80	Dimethyl Phthalate	131113	[1]
81	Di-n-Butyl Phthalate	84742	[1]
82	2,4-Dinitrotoluene	121142	[1]
83	2,6-Dinitrotoluene	606202	[1]
84	Di-n-Octyl Phthalate	117840	[1]
85	1,2-Diphenylhydrazine	122667	[1]
86	Fluoranthene	206440	[1]
87	Fluorene	86737	[1]
88	Hexachlorobenzene	118741	[1]

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
89	Hexachlorobutadiene	87863	[1]
90	Hexachlorocyclopentadiene	77474	[1]
91	Hexachloroethane	67721	[1]
92	Indeno(1,2,3-cd)Pyrene	193395	[1]
93	Isophorone	78591	[1]
94	Naphthalene	91203	[1]
95	Nitrobenzene	98953	[1]
96	N-Nitrosodimethylamine	62759	[1]
97	N-Nitrosodi-n-Propylamine	621647	[1]
98	N-Nitrosodiphenylamine	86306	[1]
99	Phenanthrene	85018	[1]
100	Pyrene	129000	[1]
101	1,2,4-Trichlorobenzene	120821	[1]
102	Aldrin	309002	[1]
103	alpha-BHC	319846	[1]
104	beta-BHC	319857	[1]
105	gamma-BHC	58899	[1]
106	delta-BHC	319868	[1]
107	Chlordane	57749	[1]
108	4,4'-DDT	50293	[1]
109	4,4'-DDE	72559	[1]
110	4,4'-DDD	72548	[1]
111	Dieldrin	60571	[1]
112	alpha-Endosulfan	959988	[1]
113	beta-Endosulfan	33213659	[1]
114	Endosulfan Sulfate	1031078	[1]
115	Endrin	72208	[1]
116	Endrin Aldehyde	7421934	[1]
117	Heptachlor	76448	[1]
118	Heptachlor Epoxide	1024573	[1]
119	PCB-1016	12674112	[1]
120	PCB-1221	11104282	[1]
121	PCB-1232	11141165	[1]
122	PCB-1242	53469219	[1]
123	PCB-1248	12672296	[1]
124	PCB-1254	11097691	[1]
125	PCB-1260	11096825	[1]
126	Toxaphene	8001352	[1]

[1] Pollutants shall be analyzed using the method defined in the CFR Part 136.