



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

September 17, 2014

Robert Granado
Director, Environmental Compliance
Kinder Morgan Liquids Terminal
1100 Town and Country Road
Orange, CA 92868

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 7009-0820-0001-6812-2091

Dear Mr. Granado:

TRANSMITTAL OF WASTE DISCHARGE REQUIREMENTS (WDRs) AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR – KINDER MORGAN LIQUIDS TERMINAL – LOS ANGELES HARBOR TERMINAL, SAN PEDRO, CA. (NPDES NO. CA0055816, CI NO. 5935)

On July 14, 2014, the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) transmitted to you the revised tentative Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit for Kinder Morgan Liquids Terminal, Los Angeles Harbor Terminal.

Pursuant to Division 7 of the California Water Code, the Regional Board at a public hearing held on September 11, 2014, reviewed the revised tentative requirements, considered all factors in the case, and adopted Order No. R4-2014-0186.

Order No. R4-2014-0186 serves as an NPDES permit, and it expires on October 31, 2019. Section 13376 of the California Water Code requires that an application/Report of Waste Discharge for a new permit must be filed at least 180 days before the expiration date.

You are required to implement the attached Monitoring and Reporting Program (MRP) on the effective date (November 1, 2014) of Order No. R4-2014-0186. Your first monitoring report for the period of January 1, 2014 through March 31, 2015, is due by May 1, 2015. You are also required to implement the Compliance Schedule included in the Order. The first Compliance Schedule annual progress report is due to the Regional Board by November 1, 2015.

Please continue to electronically submit Self-Monitoring Reports (SMR's) using the State Water Resource Control Board's California Integrated Water Quality System (CIWQS) Program web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). The CIWQS web site will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal. Also, please do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

Mr. Robert Granado
Kinder Morgan Liquids Terminal
Los Angeles Harbor Terminal

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September 17, 2014

If you have any further questions, please contact Thomas Siebels at (213) 576-6756.

Sincerely,



Cassandra Owens, Chief
Industrial Permitting Unit

Enclosures: Order No. R4-2014-0186
Attachment E – Monitoring and Reporting Program (MRP No. 7015)
Attachment F – Fact Sheet

MAILING LIST

Ms. Robyn Stuber, Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
Mr. Kenneth Wong, U.S. Army Corps of Engineers
Mr. Bryant Chesney, NOAA, National Marine Fisheries Service
Mr. Jeff Phillips, Department of Interior, U.S. Fish and Wildlife Service
Mr. William Paznokas, Department of Fish and Wildlife, Region 5
Ms. Leah Walker, State Water Resource Control Board, Drinking Water Division
Ms. Teresa Henry, California Coastal Commission, South Coast Region
Mr. Theodore Johnson, Water Replenishment District of Southern California
Mr. Tommy Smith, Los Angeles County, Department of Public Works
Mr. Angelo Bellomo, Los Angeles County, Department of Public Health
Ms. Kirsten James, Heal the Bay
Mr. Peter Schellenbarger, Heal the Bay
Mr. Liz Crosson, Los Angeles WaterKeeper
Ms. Anna Kheyfets, Natural Resources Defense Council
Ms. Karina Hankins, Kinder Morgan Energy Partners, L.P.
Ms. Mary Welch, PG Environmental, LLC
Ms. Kristy Allen, TetraTech
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**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
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**ORDER R4-2014-0186
NPDES NO. CA0055816**

**WASTE DISCHARGE REQUIREMENTS
FOR THE KINDER MORGAN LIQUIDS TERMINAL, LLC; LOS ANGELES HARBOR TERMINAL
DISCHARGE TO THE LOS ANGELES INNER HARBOR**

The following Discharger is subject to waste discharge requirements (WDR's) set forth in this Order:

Table 1. Discharger Information

Discharger	Kinder Morgan Liquids Terminal, LLC
Name of Facility	Los Angeles Harbor Terminal
Facility Address	2200 John S. Gibson Boulevard
	San Pedro, CA 90731
	Los Angeles County

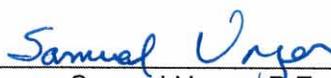
Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Storm Water	33° 45' 30" N	-118° 17' 30" W	Los Angeles Inner Harbor

Table 3. Administrative Information

This Order was adopted on:	September 11, 2014
This Order shall become effective on:	November 1, 2014
This Order shall expire on:	October 31, 2019
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDR's in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	<u>180 days prior to the Order expiration date</u>
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Los Angeles Region have classified this discharge as follows:	Minor discharge

I, Samuel Unger, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on September 11, 2014.



Samuel Unger, P.E., Executive Officer

TENTATIVE REQUIREMENTS SENT: FEBRUARY 13, 2014
REVISED TENTATIVE REQUIREMENTS SENT: JULY 14, 2014

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I. FACILITY INFORMATION

Information describing the Los Angeles Harbor Terminal (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

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

- A. Legal Authorities.** This Order serves as WDR's pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters.
- B. 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 the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E and G through J are also incorporated into this Order.
- C. Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDR's for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.
- D. 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.

THEREFORE, IT IS HEREBY ORDERED that this Order supersedes Order No. R4-2008-0031 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 CWA and regulations and guidelines adopted thereunder, the Discharger is authorized to discharge from the identified facility and outfalls into waters of the United States and shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for past violations of the previous Order.

III. DISCHARGE PROHIBITIONS

- A.** Wastes discharged shall be limited to a maximum of 50,000 gallons per day (GPD) of treated storm water runoff from the storage tank area via Discharge Point No. 001 as described in the findings. The Discharge of wastes from accidental spills or other sources is prohibited. The discharge of fire suppression test water directly to the receiving water 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 a storm drain system, the Southwest Slip, the Los Angeles Inner Harbor, 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 No. 001

1. Final Effluent Limitations – Discharge Point 001

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF 001 as described in the Monitoring and Reporting Program (Attachment E):

Table 4. Effluent Limitations

Parameter	Units	Effluent Limitations			Performance Goals ¹
		Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants					
Biochemical Oxygen Demand (5-day) @ 20°C	mg/L	30	--	--	--
	lbs/day ²	13	--	--	--
Total Suspended Solids ³	mg/L	75	--	--	--
	lbs/day ²	31	--	--	--
Oil and Grease	mg/L	15	--	--	--
	lbs/day ²	6.3	--	--	--
pH	standard units	--	6.5	8.5	--
Bacteria	CFU/100 ml or MPN/100 ml	3			
Non-Conventional Pollutants					
Acute Toxicity	% survival and Pass or Fail for TST approach	4.9			
Chronic Toxicity	TUc and Pass or Fail for TST approach	5.9			
Settleable Solids	ml/L	0.3	--	--	--
Temperature	°F	--	--	86	--
TPH ⁶	µg/L	100	--	--	--
	lbs/day ³	0.042	--	--	--
Turbidity	NTU	75	--	--	--
Priority Pollutants					
Copper, Total Recoverable ⁸	µg/L	6.1	--	--	--
	lbs/day ²	0.0025	--	--	--
Lead, Total Recoverable ⁸	µg/L	14	--	--	--
	lbs/day ²	0.0058	--	--	--
Zinc, Total Recoverable ⁸	µg/L	141	--	--	--
	lbs/day ²	0.059	--	--	--
4,4'-DDT ⁸	µg/L	0.0012	--	--	--
	lbs/day ²	5.0E-07	--	--	--
Total PCBs ^{7,8}	µg/L	0.00034	--	--	--
	lbs/day ²	1.4E-07	--	--	--

Parameter	Units	Effluent Limitations			Performance Goals ¹
		Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
TCDD-equivalents ¹⁰	µg/L	2.8E-08	--	--	--
	lbs/day ²	1.2E-11	--	--	--
PAHs					
Benzo(a)pyrene	µg/L	--	--	--	0.049
Chrysene	µg/L	--	--	--	0.049

1. CTR human health criteria are not promulgated for total PAHs. Therefore, performance goals are based on CTR human health criteria for the individual PAHs, benzo(a)pyrene and chrysene. Benzo(a)pyrene and chrysene are selected because the State's 2010 303(d) List classifies the Los Angeles/Long Beach Inner Harbor as impaired for these PAH compounds. These performance goals are not enforceable effluent limitations. Rather, they act as triggers to determine when sediment monitoring is required for these compounds.
2. The mass limitations are based on a maximum flow of 0.050 MGD and is calculated as follows:

$$\text{Flow (MGD)} \times \text{Concentration (mg/L)} \times 8.34 \text{ (conversion factor)} = \text{lbs/day}$$
3. Bacteria limits are established for both geometric means and single samples. The Basin Plan includes and implementation provision for geometric means: *"The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period.)"*
 - a. Rolling 30-day Geometric Mean Limits
 - i. Total coliform density shall not exceed 1,000/100 ml.
 - ii. Fecal coliform density shall not exceed 200/100 ml.
 - iii. Enterococcus density shall not exceed 35/100 ml.
 - b. Single Sample Limits
 - i. Total coliform density shall not exceed 10,000/100 ml.
 - ii. Fecal coliform density shall not exceed 400/100 ml.
 - iii. Enterococcus density shall not exceed 104/100 ml.
 - iv. Total coliform density shall not exceed 1,000/100 ml, if the ratio of fecal-to total coliform exceeds 0.1.
4. The acute toxicity of the effluent shall be such that: 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 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. The monthly median limit for chronic toxicity of 100% effluent in a critical life stage test is 1.0 TUc and the maximum daily limit for chronic toxicity of 100% effluent in a critical life stage test is 1.6 TUc.
6. TPH equals the sum of TPH gasoline (C4-C12), TPH diesel (C13-C22), and TPH oil (C23+).
7. Total PCBs (polychlorinated biphenyls) means the sum of chlorinated biphenyls whose analytical characteristics resembles those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
8. During each reporting period, if effluent monitoring results exceed both a TSS effluent limit and a CTR TMDL-based effluent limit or performance goal for copper, lead, zinc, 4,4-DDT, total PCBs, benzo(a)pyrene, or chrysene, implementation of the effluent sediment monitoring program is required for that priority pollutant. Sediment monitoring of the effluent shall begin during the first discharge event following the effluent exceedances. An effluent sediment monitoring result at or below the interim sediment allocation in Table 6, page 12 of this Order, demonstrates attainment with the interim sediment allocation and additional sediment monitoring of the effluent is not required. A sediment monitoring result that exceeds the interim sediment allocation requires additional sediment monitoring of the effluent during discharge but not more frequently than once per year until the three-year average concentration for sediment monitoring results is at or below the interim sediment allocation.
9. The EPA Test of Significant Toxicity (TST) approach is used to demonstrate that the instream waste concentration (IWC) is not toxic.
10. TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (ML), and toxicity equivalency factors (TEFs) are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. USEPA method 1613 may be used to analyze dioxin and furan congeners.

$$\text{Dioxin-TEQ (TCDD Equivalents)} = \sum(C_x \times \text{TEF}_x)$$

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

2. Interim Effluent Limitations – Discharge Point 001

Sampling data indicates that the effluent limits for copper, lead and TCDD equivalents are not immediately attainable. The interim limits included here are based on the maximum effluent concentrations observed and they will expire on October 31, 2018. The Discharger must comply with the final limits for copper and lead starting November 1, 2018, and TCDD equivalents starting July 3, 2018. Until such time as the final effluent limits are applicable, discharges from discharge point EFF-001 in excess of the following interim limitations are prohibited:

Table 5. Interim Effluent Limitations

Pollutant	Units	Maximum Daily Effluent Limitation
Total copper	µg/L	19
Total lead	µg/L	57
TCDD equivalents	µg/L	2.76E-05

3. Compliance Schedule

The Discharger must comply with the following tasks to achieve the final limitations specified in this Order.

Table 6. Compliance Schedule

Task	Starting Date/ Completion Date	Annual Progress Report Date
Assessment Activities		
Review storm water sampling procedures (1 month) <ul style="list-style-type: none"> Review of current sampling protocols 	November 1, 2014/ December 1, 2014	November 1, 2015
Conduct source identification activities (5 months) <ul style="list-style-type: none"> Collect storm water run-off samples at various locations throughout the facility during a variety of run-off events Evaluate the correlation between turbidity and the detected concentrations of copper, lead and dioxin Evaluate the correlation between demolition activities and chemical data obtained during the source identification and for evaluation of potential BMPs Conduct an audit of current storm water sampling protocol implemented at the Facility Update the Sampling and Analysis Plan including: monitoring locations, sampling frequencies, analytical methods, quality assurance protocol; ensuring that modifications comply with the NPDES permit Document source identification assessment activities and conclusions 	December 1, 2014/ May 1, 2015	November 1, 2015
Review/evaluate BMPs (15 months) <ul style="list-style-type: none"> Evaluate current BMPs (5 months) Identify/evaluate alternative BMPs using the following criteria (10months): <ul style="list-style-type: none"> Ability to remove metals and/or dioxin Cost-effectiveness of implementation Consistency with operational/safety constraints Document BMP assessment findings and conclusions 	May 1, 2015/ August 1, 2016	November 1, 2016
Feasibility Studies		
Review of alternative BMPs (7 months) <ul style="list-style-type: none"> Development of detailed cost estimates Preparation of likely implementation schedules Investigation of the specific permitting requirements Document alternatives review activities and identify storm water management alternatives to be evaluated 	August 1, 2016/ March 1, 2017	November 1, 2017
Evaluation of identified alternatives (10 months) <ul style="list-style-type: none"> Bench scale and/or pilot scale testing Evaluation of near-term and long-term effectiveness at meeting existing and likely future effluent limits Detailed evaluation of the constraints and benefits of each alternative Document alternatives evaluation activities and select alternative(s) to be used 	March 1, 2017/ January 1, 2018	November 1, 2018
Implementation of Selected Alternative(s) (10 months)	January 1, 2018/ November 1, 2018	February 1, 2019 (Final Report)
Compliance with Final Effluent Limit for TCDD Equivalents	July 3, 2018	--
Compliance with Final Effluent Limits for Total Copper and Total Lead	November 1, 2018	--

Kinder Morgan Liquids Terminal will submit to the Executive Officer annually (by November 1, 2015, November 1, 2016, November 1, 2017, and November 1, 2018) a progress report summarizing the progress and completion status of each task. The progress report must demonstrate that the Discharger will comply with the final effluent limits and other deadlines in the compliance schedule. Kinder Morgan Liquids Terminal will also submit to the Executive Officer by February, 2019, a final report on all compliance schedule tasks.

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

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 Angeles Inner Harbor:

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° F above the natural temperature of the receiving waters at any time or place. At no time shall the temperature of these WARM-designated waters be raised above 80° F as a result of waste discharged.
3. Water Contact Standards: In waters designated for Non-Water Contact Recreation (REC-2) and not designated for water contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 2000/100 ml (based on a minimum of not less than four samples for any 30 day period), nor shall more than 10 percent of samples collected during any 30-day period exceed 4000/100 ml.
4. Depress the concentration of dissolved oxygen 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. The presence of visible, floating, suspended or deposited macroscopic particulate matter or foam.
6. 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.
7. Suspended or settleable materials, chemical substances or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use.
8. 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.
9. Accumulation of bottom deposits or aquatic growths.
10. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
11. The presence of substances that result in increases of BOD that adversely affect beneficial uses.

12. 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.
13. Alteration of turbidity, or apparent color beyond present natural background levels.
14. Damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload the design capacity.
15. Degrade surface water communities and populations including vertebrate, invertebrate, and plant species.
16. Problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.
17. Create nuisance, or adversely affect beneficial uses of the receiving water.
18. 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 40 C.F.R. 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 stormwater to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal stormwater 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.** 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.
- f.** 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.
- g.** 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.
- h.** 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.
- i.** 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.
- j.** 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.
- k.** 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, a copy of which shall be forwarded to the Regional Water Board.
- l.** 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.
- m.** 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.

- n. 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.
- o. 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.
- p. 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.
- q. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, , Maximum Daily Effluent Limitation (MDEL), instantaneous maximum effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Regional Water Board by telephone (213)-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.
- r. 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. (Water Code § 1211.)

B. Monitoring and Reporting Program (MRP) Requirements

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

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 RPA.

- c. This Order may be reopened and modified, in accordance with the provisions set forth in 40 C.F.R. 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 Los Angeles Inner Harbor.
- e. This Order may be reopened upon submission by the Discharger of adequate information, as determined by the Regional Water Board, to provide for a design storm, 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. **Chronic Toxicity Limit and Monitoring Requirements.** This Order contains a monthly median chronic toxicity limit defined as an exceedance of 1.0 TUc in a critical life stage test for 100% effluent (The monthly median for chronic toxicity of 100% effluent shall not exceed 1 TUc in a critical life stage test). This Order also contains a maximum daily chronic toxicity limit defined as an exceedance of 1.6 TUc in a critical life stage test for 100% effluent. The Discharger shall monitor the effluent annually for chronic toxicity to determine the presence of chronic toxicity. If the chronic toxicity of the effluent exceeds 1.0 TUc monthly median or 1.6 TUc maximum daily (where $TUc = 100/NOEC$), the Discharger shall immediately implement accelerated chronic toxicity testing, as required in Section V.B of the Monitoring and Reporting Program (Attachment E).
- b. **Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.** The Discharger shall submit to the Regional Water Board an Initial Investigation Toxicity Reduction Evaluation (TRE) workplan (1-2 pages) **within 90 days** of the effective date of this permit. If the Executive Director does not disapprove of the workplan within 60 days, the workplan shall become effective. The Discharger shall use USEPA manual EPA/600/2-88/070 (industrial) as guidance. This plan shall describe the steps the permittee intends to follow in the event that a violation of the acute or chronic toxicity limits occurs, 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 toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside

contractor) (Section V of the MRP, Attachment E, provides references for the guidance manuals that should be used for performing TIEs).

c. Monitoring Thresholds Based on Sediment Interim Concentration-based Allocations in the Harbor Toxics TMDL for Sediment Monitoring of Effluent

The monitoring thresholds in Table 6 of this Order are based on the TMDL’s interim sediment allocations for copper, lead, zinc, DDT, PAHs, and PCBs. Attainment with these thresholds shall be demonstrated in accordance with Footnote 8 to Table 4, page 6 of this Order. Regardless of these monitoring thresholds, the Discharger shall ensure that effluent concentrations and mass discharges do not exceed levels that can be attained by performance of the Facility’s treatment technologies at the time of permit issuance, reissuance, or modification. At a minimum, the Discharger is required to monitor sediment directly once during the five year permit cycle if there is a discharge from the Facility during the permit term.

Table 7. Monitoring Thresholds

Pollutant	Sediment, Interim Concentration-Based Allocations	Units
Copper	154.1	mg/kg sediment
Lead	145.5	mg/kg sediment
Zinc	362.0	mg/kg sediment
DDT	0.341	mg/kg sediment
PAHs	90.30	mg/kg sediment
PCBs	2.107	mg/kg sediment

3. Harbor Toxics TMDL Water Column, Sediment and Fish Tissue Monitoring for the Greater Los Angeles and Long Beach Harbor Waters Compliance Monitoring Program

As defined in the Harbor Toxics TMDL, the Discharger is a “responsible party” because it is an “Individual Industrial Permittee”. As such, either individually or with a collaborating group, the Discharger shall develop a monitoring and reporting plan (Monitoring Plan) and quality assurance project plan (QAPP) for the water column, sediment, and fish tissue in the Greater Los Angeles and Long Beach Harbor. These plans shall follow the “TMDL Element - Monitoring Plan” provisions in Attachment A to Resolution No. R11-008. The Discharger must inform the Regional Board if they plan to join a collaborative monitoring effort or develop a site specific plan no later than **90 days** after the effective date of this Order. If the Discharger is joining a collaborative effort that notification must include documentation of such. If developing a site specific Monitoring Plan, the plan must be submitted no later than **12 months** after the effective date of this Order for public review and, subsequently, Executive Officer approval. Monitoring shall begin **6 months** after a monitoring plan is approved by the Executive Officer.

4. Storm Water Pollution Prevention Plan (SWPPP), Best Management Practices Plan (BMPP), and Spill Contingency Plan (SCP)

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

- a. An updated 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 be developed in accordance with the requirements in Attachment G.

- b.** An updated BMPP that will be implemented to reduce the discharge of pollutants to the receiving water. The BMPP may be included within the SWPPP. The BMPP shall include site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the state. 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 any potential unauthorized discharges (i.e., spills) to the receiving water have been effectively prohibited. In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material discharge to surface waters. The BMPP shall be developed in accordance with requirements in Attachment G.
- c.** A Spill Contingency Plan SCP that includes a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events at the site.

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. The Discharger shall 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, BMPP, and SCP 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 and the BMPP shall be reviewed annually and at the same time; and the SCP shall also be reviewed annually. Updated information shall be submitted to the Regional Water Board within 30 days of revision.

d. Pollutant Minimization Program

The Discharger shall update and continue to implement a Pollutant Minimization Program (PMP) to promote minimization of pollutant loadings of copper, lead and zinc to the storm water and therefore to the receiving waters. The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

- i.** An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;
- ii.** Quarterly monitoring for the reportable priority pollutant(s) in the collected storm water and collected fire suppression test water;
- iii.** Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;
- iv.** Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and
- v.** An annual status report that shall be sent to the Regional Water Board including:

- (a) All PMP monitoring results for the previous year;
- (b) A list of potential sources of the reportable priority pollutant(s);
- (c) A summary of all actions undertaken pursuant to the control strategy; and
- (d) A description of actions to be taken in the following year.

5. 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.
- b. The Discharger shall develop and maintain a record of all spills from the facility. This record shall be made available to the Regional Water Board and USEPA upon request. The Discharger shall submit to the Regional Water Board and USEPA a report listing all spills, overflows or bypasses occurring during the previous quarter in the quarterly monitoring reports. The reports shall provide the date and time of each spill, the location of each spill, the estimated volume of each spill, including gross volume, amount recovered and amount not recovered; the cause of each spill, whether each spill, entered a receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances; mitigation measures implemented; corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences; and beneficial uses impacted.

6. Special Provisions for Municipal Facilities—Not Applicable

7. Other Special Provisions—Not Applicable

8. Compliance Schedules

The Discharger may be unable to comply with the limits established in this Order for dioxin (TCDD equivalents). The Discharger may choose to submit a request for a Time Schedule Order to the Regional Water Board to allow time for the Discharger to conduct assessment activities that will lead to compliance with the limits established in this Order for dioxin (TCDD equivalents) as described in Section IV.B.2.

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. 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.

E. 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.

F. 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).

G. 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.

Average Weekly Effluent Limitation (AWEL)

The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

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. Sample results reported as DNQ are estimated concentrations.

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 U.S. EPA 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.

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 40 C.F.R. 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.

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 Water Resources Control Board (State Water Board) or Regional Water Board.

Reporting Level (RL)

The 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, including an additional factor if applicable as discussed herein. 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.

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

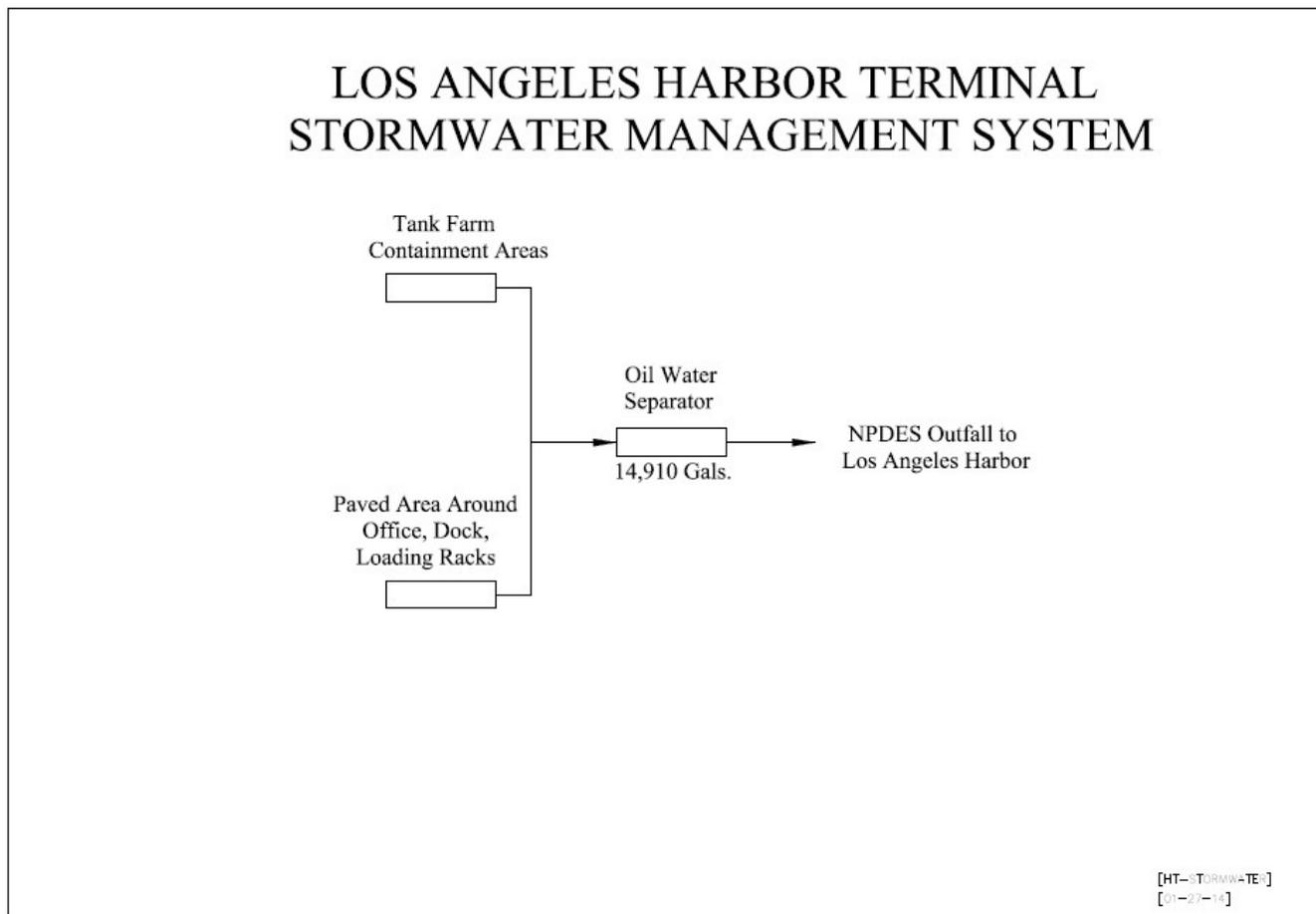
AMEL	Average Monthly Effluent Limitation
B	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	<i>Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties</i>
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BMPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-day @ 20 °C
BPT	Best Practicable Treatment Control Technology
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
C.F.R.	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
Discharger	Northrop Grumman Systems Corporation
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Public Health Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Facility	Northrop Grumman- Hawthorne Site (formerly TRW, Inc)
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	<i>Water Quality Control Plan for Ocean Waters of California</i>
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
RPA	Reasonable Potential Analysis
SCP	Spill Contingency Plan
SIP	State Implementation Policy (<i>Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California</i>)
SMR	Self Monitoring Reports
State Water Board	California State Water Resources Control Board
SWPPP	Stormwater Pollution Prevention Plan
TAC	Test Acceptability Criteria
Thermal Plan	<i>Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California</i>
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 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. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 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. (40 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, U.S. EPA, 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 (40 C.F.R. § 122.41(i); Wat. Code, § 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 (40 C.F.R. § 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 (40 C.F.R. § 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 (40 C.F.R. § 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. (40 C.F.R. § 122.41(i)(4).)

G. Bypass

1. Definitions
 - a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 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 (40 C.F.R. § 122.41(m)(4)(i)):
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));
 - b. 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 (40 C.F.R. § 122.41(m)(4)(i)(B)); and
 - c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 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). (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 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 (40 C.F.R. § 122.41(n)(3)):
 - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));
 - b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 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) (40 C.F.R. § 122.41(n)(3)(iii)); and
 - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 122.41(l)(3); § 122.61.)

III. STANDARD PROVISIONS – MONITORING

- A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)
- B. Monitoring results must be conducted according to test procedures under 40 C.F.R. part 136 or, in the case of sludge use or disposal, approved under 40 C.F.R. part 136 unless otherwise specified in 40 C.F.R. part 503 unless other test procedures have been specified in this Order. (40 C.F.R. § 122.41(j)(4); § 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 40 C.F.R. 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. (40 C.F.R. § 122.41(j)(2).)
- B. Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
 - 2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
 - 3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
 - 4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
 - 5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
 - 6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)
- C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):
 - 1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
 - 2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 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 U.S. EPA within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA 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 U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA 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. (40 C.F.R. § 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. (40 C.F.R. § 122.22(a)(1).)
3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or U.S. EPA 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 (40 C.F.R. § 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.) (40 C.F.R. § 122.22(b)(2)); and
 - c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 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. (40 C.F.R. § 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:
6. “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.” (40 C.F.R. § 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. (40 C.F.R. § 122.41(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. (40 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such 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. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 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. (40 C.F.R. § 122.41(l)(6)(i).)
2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)
 - b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 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. (40 C.F.R. § 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 (40 C.F.R. § 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) (40 C.F.R. § 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 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). (40 C.F.R. § 122.41(l)(1)(ii).)
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R. § 122.41(l)(1)(iii).)

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 this Order's requirements. (40 C.F.R. § 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. (40 C.F.R. § 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 U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 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 [40 C.F.R. § 122.41(a)(2)] [Water Code §§ 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 [40 C.F.R. § 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 [40 C.F.R. § 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 [40 C.F.R. § 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 (40 C.F.R. § 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" (40 C.F.R. § 122.42(a)(1)):

- a.** 100 micrograms per liter ($\mu\text{g/L}$) (40 C.F.R. § 122.42(a)(1)(i));
 - b.** 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));
 - c.** Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or
 - d.** The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 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" (40 C.F.R. § 122.42(a)(2)):
 - a.** 500 micrograms per liter ($\mu\text{g/L}$) (40 C.F.R. § 122.42(a)(2)(i));
 - b.** 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));
 - c.** Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or
 - d.** The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP No. 5935)

The Code of Federal Regulations (40 C.F.R. § 122.48) requires that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement federal and California regulations.

I. GENERAL MONITORING PROVISIONS

- A.** An effluent sampling station shall be established for the point of discharge (Discharge Point No. 001 [Latitude 33° 45' 30", Longitude -118° 17' 30"]) 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 May 18, 2012); 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 State Water Resources Control Board (State Water Board), Drinking Water Division 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 State Water Board 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 C.F.R. part 136 (revised May 18, 2012);
 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. Unless otherwise specified in the analytical method, duplicate samples must be analyzed at a frequency of 5% (1 in 20 samples) with at least one if there is fewer than 20 samples in a batch. A batch is defined as a single analytical run encompassing no more than 24 hours from start to finish. 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.** 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.
- O.** Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.
- P.** Laboratories analyzing monitoring samples shall be certified by the Department of Public Health, 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	An effluent sampling station shall be established for the point of discharge (Latitude 33° 45' 30", Longitude -118° 17' 30") and shall be located where representative samples of that effluent can be obtained
--	RSW-001	A sampling station shall be established at a location outside the influence of the effluent discharge location, and approximately 50 feet upstream, relative to tidal flow in the Los Angeles Inner Harbor. Sampling may occur from piers adjacent to the Discharge Point.

The latitude and longitude information in Table 1 are approximate for administrative purposes.

III. INFLUENT MONITORING REQUIREMENTS—NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF 001

- 1. The Discharger shall monitor discharges of treated storm water prior to discharge through Discharge Point 001 as follows. 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:

Table E-2. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Flow	gallons/day	Meter	1/Discharge Event	--
Rainfall	Inches	Continuous	Daily	--
Conventional Pollutants				
pH	standard units	Grab	1/Discharge Event	1
Biochemical Oxygen Demand (5-day) @ 20°C ²	mg/L	Grab	1/Discharge Event	1
Oil and Grease ²	mg/L	Grab	1/Discharge Event	1
Total Suspended Solids ²	mg/L	Grab	1/Discharge Event	1
Non-Conventional Pollutants				
Settleable Solids	ml/L	Grab	1/Discharge Event	1
Sulfides	mg/L	Grab	1/Discharge Event	1
Temperature	°F	Grab	1/Discharge Event	1
Total Petroleum Hydrocarbons (TPH) as Gasoline (C ₄ -C ₁₂) ²	µg/L	Grab	1/Discharge Event	EPA Method 503.1 or 8015B
TPH as Diesel (C ₁₃ -C ₂₂) ²	µg/L	Grab	1/Discharge Event	EPA Method 503.1, 8015B, or 8270
TPH as Waste Oil (C ₂₃₊) ²	µg/L	Grab	1/Discharge Event	EPA Method 503.1, 8015B, or 8270
Total Phenols	mg/L	Grab	1/Quarter	1
Turbidity	NTU	Grab	1/Discharge Event	1
Xylenes	µg/L	Grab	1/Quarter	1
Total Coliform	MPN/100 ml	Grab	1/Discharge Event	1,3
Fecal coliform	MPN/100 ml	Grab	1/Discharge Event	1,3
<i>Enterococcus</i>	MPN/100 ml	Grab	1/Discharge Event	1,3
Acute Toxicity	% survival, Pass or Fail, and % effect for TST approach	Grab	1/Discharge Event	4
Chronic Toxicity	TUc, Pass or Fail, and % effect for TST approach	Grab	1/Discharge Event	4
Priority Pollutants				
Antimony, Total Recoverable	µg/L	Grab	1/Year	1,5
Arsenic, Total Recoverable	µg/L	Grab	1/Year	1,5
Beryllium, Total Recoverable	µg/L	Grab	1/Year	1,5
Cadmium, Total Recoverable	µg/L	Grab	1/Year	1,5
Chromium III	µg/L	Grab	1/Year	1,5
Chromium VI	µg/L	Grab	1/Year	1,5
Copper, Total Recoverable ²	µg/L	Grab	1/Discharge Event	1,5

Parameter	Units	Sample Type	Minimum Sampling Frequency ⁹	Required Analytical Test Method
Cyanide, Total (as CN)	µg/L	Grab	1/Year	1,5
Lead, Total Recoverable ²	µg/L	Grab	1/Discharge Event	1,5
Mercury, Total Recoverable	µg/L	Grab	1/Year	1,5
Nickel, Total Recoverable	µg/L	Grab	1/Year	1,5
Selenium, Total Recoverable	µg/L	Grab	1/Year	1,5
Silver, Total Recoverable	µg/L	Grab	1/Year	1,5
Thallium, Total Recoverable	µg/L	Grab	1/Year	1,5
Zinc, Total Recoverable ²	µg/L	Grab	1/Discharge Event	1,5
Benzene	µg/L	Grab	1/Quarter	1
4,4'-DDT ²	µg/L	Grab	1/Discharge Event	1,5
Ethylbenzene	µg/L	Grab	1/Quarter	1
TCDD-Equivalents ^{2,6}	µg/L	Grab	1/Quarter	1
Toluene	µg/L	Grab	1/Quarter	1
Total PCBs ^{2,7}	µg/L	Grab	1/Discharge Event	1,5
Remaining Priority Pollutants ⁸	µg/L	Grab	1/Year	1
PAHs				
Benzo(a)pyrene	µg/L	Grab	1/Discharge Event	1,5
Chrysene	µg/L	Grab	1/Discharge Event	1,5

¹ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Appendix 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.

² The mass emission (lbs/day) for the discharge shall be calculated and reported using the limitation concentration and the actual flow rate measured at the time of discharge, using the formula.

$$M = 8.34 \times C_e \times Q$$

where: M = mass discharge for a pollutant, lbs/day

C_e = measured concentration for a pollutant, mg/L

Q = actual discharge flow rate,

³ Detection methods used for coliforms (total and fecal) and *Enterococcus* shall be those presented in Table 1A of part 136 (revised July 1, 2009), unless alternate methods have been approved by USEPA pursuant to part 136 or improved methods have been determined by the Executive Officer and/or USEPA. See section VI.J (Compliance Determination, Bacterial Standards and Analyses) of the Order for additional specifications.

⁴ Refer to Section V, Whole Effluent Toxicity Testing Requirements

⁵ Analyses must be conducted on unfiltered effluent samples.

⁶ TCDD equivalents shall be calculated using the following formula, where the toxicity equivalency factors (TEFs) are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. USEPA method 1613 may be used to analyze dioxin and furan congeners.

$$\text{Dioxin-TEQ (TCDD equivalents)} = \sum(C_x \times \text{TEF}_x)$$

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

- ⁷ Total PCBs (polychlorinated biphenyls) means 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.
- ⁸ Priority Pollutants as defined by the California Toxics Rule (CTR) included as Attachment I to this Order.
- ⁹ During periods of extended discharge, no more than one sample per week (or a 7-day period) 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. If there is no discharge to surface water, then no monitoring is required. In the corresponding monitoring report, the Discharger shall indicate under statement of perjury that no effluent was discharged to surface water during the reporting period.

2. Sediment Monitoring of Effluent at Monitoring Location EFF-001

The Discharger must sample the discharge at the point following final treatment prior to entering the receiving water. The exact location of the sampling point must be stipulated in the initial self-monitoring report. Analytical tests shall be conducted by laboratories certified by the California Department of Public Health in accordance with Water Code Section 13176.

Table E-3. Sediment Monitoring Requirements^{1,2}

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Copper	mg/kg	Grab	1/Year	3
Lead	mg/kg	Grab	1/Year	3
Zinc	mg/kg	Grab	1/Year	3
DDT ⁴	mg/kg	Grab	1/Year	3
PAHs ⁵	mg/kg	Grab	1/Year	3
PCBs ⁶	mg/kg	Grab	1/Year	3

¹ This monitoring is only required in years in which a discharge from the Facility to receiving waters occurs. If monitoring is not triggered because of an exceedance, sediment monitoring must occur at least once during the five year permit term, if a discharge from the Facility occurs.

² 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 the first safe opportunity, and the reason for the delay shall be included in the report.

³ Pollutants shall be analyzed in accordance with USEPA or ASTM methodologies where such methods exist. Where no USEPA or ASTM methods exist, the State Board or Los Angeles Regional Water Board shall approve the use of other methods. Analytical tests shall be conducted by laboratories certified by the California Department of Public Health in accordance with Water Code section 13176.

⁴ The State Water Resources Control Board Water Quality Control Plan for Enclosed Bays and Estuaries—Part 1 Sediment Quality, August 25, 2009 (Sediment Quality Plan), listed chemical analytes needed to characterize sediment contamination exposure and effect. According to Attachment A of the Sediment Quality Plan, DDTs shall mean the sum of: o,p'-DDE, o,p'-DDD, o,p'-DDT, p,p'-DDD, p,p'-DDE, and p,p'-DDT.

⁵ According to the Sediment Quality Plan, total PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of: Acenaphthene, Anthracene, Biphenyl, Naphthalene, 2,6-dimethylnaphthalene, Fluorene, 1-methylnaphthalene, 2-methylnaphthalene, 1-methylphenanthrene, Phenanthrene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(e)pyrene, Chrysene, Dibenz(a,h)anthracene, Fluoranthene, Perylene, and Pyrene.

⁶ According to Attachment A of the Sediment Quality Plan, total PCBs (polychlorinated biphenyls) shall mean the sum of the following PCB congeners: 2,4'-Dichlorobiphenyl, 2,2',5'-Trichlorobiphenyl, 2,4,4'-Trichlorobiphenyl, 2,2',3,5'-Tetrachlorobiphenyl, 2,2',5,5'-Tetrachlorobiphenyl, 2,3',4,4'-Tetrachlorobiphenyl, 2,2',4,5,5'-Pentachlorobiphenyl, 2,3,3',4,4'-Pentachlorobiphenyl, 2,3',4,4',5'-Pentachlorobiphenyl, 2,2',3,3',4,4'-Hexachlorobiphenyl, 2,2',3,4,4',5'-Hexachlorobiphenyl, 2,2',4,4',5,5'-Hexachlorobiphenyl, 2,2',3,3',4,4',5'-Heptachlorobiphenyl, 2,2',3,4,4',5,5'-Heptachlorobiphenyl, 2,2',3,4',5,5',6'-Heptachlorobiphenyl, 2,2',3,3',4,4',5,5',6'-Octachlorobiphenyl, 2,2',3,3',4,4',5,5',6'-Nonachlorobiphenyl, and Decachlorobiphenyl.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

1. **Method.** The Discharger shall conduct acute toxicity tests on 24-hour composite 100% effluent samples, generally by methods specified in 40 C.F.R. 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.

2. **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 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).

3. **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 two weeks, over a 12-week period. 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.
4. For this monitoring program to evaluate compliance with the acute toxicity WQBEL based on the acute toxicity objective, the critical acute instream waste concentration (IWC) is set to 100% effluent. A 100% effluent sample and a control shall be tested. Acute toxicity test biological endpoint data shall be analyzed directly to report % survival in the 100% effluent sample.
5. **Toxicity Identification Evaluation (TIE).**
 - a. 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.
 - b. If the initial test and any of the additional six acute toxicity bioassay test results are less than 70% survival, the Discharger shall immediately begin a TIE and implement the Initial Investigation TRE workplan. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the requirements.

B. Chronic Toxicity

1. Discharge In-stream Waste Concentration (IWC) for Chronic Toxicity

The chronic toxicity IWC for this discharge is 100 percent effluent.

2. Sample Volume and Holding Time

The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. For the storm water, sufficient sample volume shall also be collected for subsequent TIE studies, if necessary, at each sampling event. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation.

3. Marine and Estuarine Species and Test Methods

If effluent samples are collected from outfalls discharging to receiving waters with salinity ≥ 1 ppt, the Discharger shall conduct the following critical life stage chronic toxicity tests on effluent samples—at the IWC for the discharge—in accordance with species and test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995; Table IA, 40 CFR Part 136). Artificial sea salts shall be used to increase sample salinity. In no case shall these test species and methods be substituted with another test species unless written authorization from the Regional Water Board Executive Officer is received.

- a. A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.01).
- b. A static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, and the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0), or a static non-renewal toxicity test with the red abalone, *Haliotis rufescens* (Larval Shell Development Test Method).
- c. A static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).

4. Test Species Sensitivity Screening

Species sensitivity screening shall be conducted during this permit's first required sample collection. The Discharger shall collect a single effluent sample and concurrently conduct three toxicity tests using the fish, an invertebrate, and the alga species previously referenced. This sample shall also be analyzed for the parameters required for the discharge. The species that exhibits the highest "Percent Effect" at the discharge IWC during species sensitivity screening shall be used for routine monitoring during the permit cycle.

5. Quality Assurance and Additional Requirements

Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified below.

- a. The discharge is subject to determination of "Pass" or "Fail" and "Percent Effect" from a single-effluent concentration chronic toxicity test at the discharge IWC using the Test of Significant Toxicity (TST) approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1. The null hypothesis (H_0) for the TST approach is: Mean discharge IWC response $\leq 0.75 \times$ Mean control response. A test result that rejects this null hypothesis is reported as "Pass". A test result that does not reject this null hypothesis is reported as "Fail". The relative "Percent Effect" at the discharge IWC is defined and reported as: $((\text{Mean control response} - \text{Mean discharge IWC response}) \div \text{Mean control response}) \times 100$.
- b. The Median Monthly Effluent Limit (MMEL) for chronic toxicity only applies when there is a discharge more than one day in a calendar month period. During such calendar months, exactly three independent toxicity tests are required when one toxicity test results in "Fail". This requirement is not applicable to the industrial storm water discharge.
- c. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method, then the Discharger must re-sample and re-test within 14 days. For the industrial storm water discharge, the Discharger must re-sample and re-test as soon as possible.
- d. Dilution water and control water, including brine controls, shall be laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

- e. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.). Monthly reference toxicant testing is sufficient.
- f. All reference toxicant test results should be reviewed and reported according to EPA guidance on the evaluation of concentration-response relationships found in *Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing* (40 CFR section 136) (EPA 821-B-00-004, 2000).
- g. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the Monitoring and Reporting Program and the rationale is explained in the Fact Sheet (Attachment F).

C. Preparation of Initial Investigation TRE Work Plan

The Discharger shall prepare and submit a generic Initial Investigation TRE Work Plan within 90 days of the permit effective date, to be ready to respond to toxicity events. The Discharger shall review and update this work plan as necessary so it remains current and applicable to the discharge. At minimum, the work plan shall include:

1. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
2. A description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the facility.
3. If a Toxicity Identification Evaluation (TIE) is necessary, an indication of who would conduct the TIEs (i.e., an in-house expert or outside contractor).

D. Toxicity Identification Evaluation and Toxicity Reduction Evaluation Process

1. **Toxicity Identification Evaluation (TIE).** A toxicity test sample is immediately subject to TIE procedures to identify the toxic chemical(s), if an acute or chronic toxicity test shows "Fail" and "% Effect value \geq 50". The Discharger shall initiate a TIE using, as guidance, EPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993), *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993) and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.
2. **Toxicity Reduction Evaluation (TRE).** When a toxicant or class of toxicants is identified, a TRE shall be performed for that toxicant. The TRE shall include all reasonable steps to identify the source(s) of toxicity and discuss appropriate BMPs to eliminate the causes of toxicity. No later than 30 days after the source of toxicity and appropriate BMPs and/or treatment are identified, the Discharger shall submit a TRE Corrective Action Plan to the Executive Officer for approval. At minimum, the plan shall include:
 - a. The potential sources of pollutant(s) causing toxicity.
 - b. Recommended BMPs and/or treatment to reduce the pollutant(s) causing toxicity.
 - c. Follow-up monitoring to demonstrate that toxicity has been removed.

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 is no longer toxicity (or six consecutive chronic toxicity test results are less than or equal to 1.0 TU_c 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 schedule required by V.A.2.d and V.B.2.b of this MRP, 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. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.

F. 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 TIE 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.

G. Reporting

1. The SMR required by Section V of the MRP shall include:
 - a. A full laboratory report for each toxicity test prepared according to the appropriate test methods manual chapter on Report Preparation, including:

Table E-4. Receiving Water Monitoring Requirements¹

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	standard units	Grab ⁴	1/Year ²	3
Ammonia, Total (as N)	mg/L	Grab	1/Year ²	3
Dissolved Oxygen	mg/L	Grab	1/Year ²	3
Temperature	°F	Grab ⁴	1/Year ²	3
Priority Pollutants ⁵	µg/L	Grab	1/Year ²	3
Enterococcus	MPN/100 ml	Grab	1/Year ²	3
Total coliform	MPN/100 ml	Grab	1/Year ²	3
Fecal coliform	MPN/100 ml	Grab	1/Year ²	3
TCDD Equivalents ⁶	µg/L	Grab	1/Year ²	3
Salinity	mg/L	Grab	1/Year ²	3

- ¹ The Discharger shall note the direction of tidal flow to ensure sample is upstream of the discharge point.
- ² Concurrent with effluent priority pollutant sampling.
- ³ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. §§ 136.3, 136.4 and 136.5; 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 A hand-held field meter may be used, provided the meter utilizes an EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
- ⁵ 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 H.
- ⁶ TCDD equivalents shall be calculated using the following formula, where the toxicity equivalency factors (TEFs) are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. USEPA method 1613 may be used to analyze dioxin and furan congeners.

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

IX. HARBOR TOXICS TMDL MONITORING

A. Greater Los Angeles and Long Beach Harbor Waters Water Column Monitoring

Water samples and total suspended solids (TSS) samples shall be collected during two wet weather events and one dry weather event each year. TSS shall be collected at several depths during wet weather events. The first large storm event of the season shall be included as one of the wet weather events. General water chemistry (temperature, dissolved oxygen, pH and salinity) and a flow measurement shall be required at each sampling event.

B. Greater Los Angeles and Long Beach Harbor Waters Sediment Monitoring

Sediment chemistry samples shall be collected every five years. The analysis shall include the chemical suite, two toxicity tests and four benthic indices as specified in the State Water Quality Control Plan for Enclosed Bays and Estuaries—Part 1 Sediment Quality.

C. Fish Tissue Monitoring

Fish tissue samples shall be collected every two years in San Pedro Bay, Los Angeles Harbor and Long Beach Harbor, and analyzed for chlordane, dieldrin, toxaphene, DDT, and PCBs. At a minimum, three species shall be collected, including white croaker, a sport fish, and a prey fish.

X. OTHER MONITORING REQUIREMENTS

A. Visual Monitoring of Receiving Water Sampling Point

1. A visual observation station shall be established in the vicinity of the discharge point to the receiving water.
2. General observations of the receiving water shall be made at each discharge point when discharges occur. During months of no discharge, the receiving water observations shall be made on a monthly basis. All receiving water observations shall be reported in the quarterly monitoring report. If no discharge occurred during the observation period, this shall be reported. Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations shall be made:
 - a. Tidal stage, time, and date of monitoring;
 - b. Weather conditions;
 - c. Color of water;
 - d. Appearance of oil films or grease, or floatable materials;
 - e. Extent of visible turbidity or color patches;
 - f. Direction of tidal flow;
 - g. Description of odor, if any, of the receiving water; and
 - h. Presence and activity of California Least Tern and California Brown Pelican.

B. 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 1-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.

C. Storm Water Pollution Prevention Plan (SWPPP), Best Management Practices Plan (BMPP), and Spill Contingency Plan (SCP) Status and Effectiveness Report

1. As required under Special Provision V.C.3 of this Order, the Discharger shall submit an updated SWPPP, BMPP, and SCP 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, BMPP, and SCP Status required under Special Provision V.C.3 of this Order. The SWPPP, BMPP, and SCP Status shall be reviewed at a minimum once per year and 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, BMPP, and SCP Status. All changes or revisions to the SWPPP, BMPP, and SCP Status will be summarized in the annual report required under Attachment E, Monitoring and Reporting, section X.D.4.d.

D. Chemical Use Report

1. The Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect the waste discharge, including quantities of each.
2. The Discharger shall report annually summarizing the quantities of all chemicals, listed by both trade and chemical names, which are used at the facility and which are discharged or have the potential to be discharged.
3. The Discharger shall monitor the chemicals used in the Facility. Prior to any change in the use of chemical at the Facility the Discharger must inform the Regional Water Board. No changes in the type or amount of chemicals added to the process water shall be made without the written approval of the Regional Water Board’s Executive Officer. To comply with this provision, the discharger must submit a complete report of the change to the Regional Water Board before the proposed date of change. This requirement does not apply to changes of chemical brand names where the chemical composition and material safety data sheets (MSDS) information for the new brand is essentially identical to the previous chemical used. The change in brand or manufacturer with a copy of the new MSDS sheet need only be reported to the Regional Water Board in the Discharger’s quarterly DMRs.

XI. 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 toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, section V.F.

B. Self-Monitoring Reports (SMR's)

1. The Discharger shall electronically submit SMR's using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). The CIWQS Web site will provide additional information for SMR submittal in the event there will be a planned 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 SMR's including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMR's are to include all new monitoring results obtained since the last SMR was submitted. 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-5. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
1/Quarter	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
1/Year	January 1 following (or on) permit effective date	January 1 through December 31	February 1

4. Reporting Protocols. The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. 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 RL 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

- c. SMRs must be submitted to the Regional Water Board electronically as specified in finding XI.B.1. above, signed and certified as required by the Standard Provisions (Attachment D). If the size of the submittal necessitates the submittal of a disk, please mail it 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 (DMR's)—Not Applicable

D. Other Reports

1. The Discharger shall report the results of the SWPP, BMP Plan, and SCP required by Special Provisions – IX.C of this Order. The Discharger shall submit reports with the first quarterly SMR scheduled to be submitted on or immediately following the report due date.
2. Within 90 days of the effective date of this permit, the Discharger is required to submit the following to the Regional Water Board:
 - a. Updated SWPPP;
 - b. Updated BMPP; and
 - c. Updated SCP.
3. Within **90 days** of the effective date of this Order, the Discharger must submit to the Regional Board notification of whether Kinder Morgan Liquids Terminal, LLC, Los Angeles Harbor Terminal will be participating with an organized group of Responsible Parties to complete the regional monitoring required by the Harbor Toxics TMDL, or if the Discharger will be developing a site specific plan. If developing a site specific plan, that plan is due to the Regional Board 12 months from the effective date of this Order. Regional Board staff will review the plan and provide an opportunity for public comment. Six months after the receipt of the plan the Executive Officer will comment or approve the plan. The Discharger has six months after the approval to implement the plan. The Discharger or the Responsible Parties shall submit annual implementation reports to the Regional Water Board. The reports shall describe the measures implemented and the progress achieved toward meeting the assigned WLAs and LAs.
4. As discussed in section IX.D of the MRP, Attachment E, the Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section I, the Regional Water Board incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance 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	4B1 922 38001
Discharger	Kinder Morgan Liquids Terminal, LLC
Name of Facility	Los Angeles Harbor Terminal
Facility Address	2200 John S. Gibson Boulevard
	San Pedro, CA 90731
	Los Angeles County
Facility Contact, Title and Phone	Karina Hankins, Senior Environmental Health and Safety Specialist, (714) 560-4887
Authorized Person to Sign and Submit Reports	Robert Granado, Director, Environmental Compliance, (714) 560-4873
Mailing Address	1100 Town and Country Road, Orange, CA 92868
Billing Address	SAME
Type of Facility	Bulk Liquid Storage Terminal (SIC 4226)
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	C
Pretreatment Program	Not Applicable
Recycling Requirements	Not Applicable
Facility Permitted Flow	0.050 million gallons per day (MGD)
Facility Design Flow	0.050 MGD
Watershed	Dominguez Channel/Los Angeles-Long Beach Harbors
Receiving Water	Los Angeles Inner Harbor
Receiving Water Type	Enclosed Bay

- A.** Kinder Morgan Liquids Terminals, LLC (hereinafter Discharger) is the owner and operator of the Los Angeles Harbor Terminal (hereinafter Facility), a petroleum storage and handling 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 the Discharger herein.
- B.** The Facility discharges stormwater to the Southwest Slip of the Los Angeles Inner Harbor, a water of the United States, and is currently regulated by Order R4-2008-0031 which was adopted on June 5, 2008, and expired on May 10, 2013. The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste

Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) permit are adopted pursuant to this Order.

- C. The Discharger filed a report of waste discharge and submitted an application for reissuance of its WDR's and NPDES permit on December 5, 2012.

II. FACILITY DESCRIPTION

Kinder Morgan Liquids Terminals is the owner and operator of a storage and handling facility for commercial-grade petroleum products (i.e. gasoline, jet fuel, etc). Fuel is received via off-loading from barges and tankers at the fuel pier and is pumped directly to the Main Terminal and stored in aboveground storage tanks. The Facility intermittently discharges up to 0.050 MGD of storm water runoff to the Los Angeles Inner Harbor.

The Facility covers 12.4 acres and consists of administrative buildings, two main containment areas that house 18 above ground storage tanks (with a total capacity of 22,032,738 gallons), a pier to load and offload fuel from vessels, a transmix (mixed and off-spec fuel) offloading rack, an aviation gasoline loading rack, a hazardous waste storage area, and access roads. Eight of the tanks are currently in operation, ten are out of service. Fuels stored on-site include jet fuel, fuel oil, transmix, and aviation gasoline.

A. Description of Wastewater and Biosolids Treatment and Controls

Storm water from the storage tank areas is contained via unlined berms and is allowed to evaporate and percolate when possible. If necessary due to high rain fall, contained storm water may be pumped to a four-stage oil/water separator. Prior to discharging contained storm water to the oil/water separator, Facility staff verify that no sheen or discoloration is present on the contained storm water. Additional storm water from non-operational areas of the Facility, such as access roads, may also be pumped to the oil/water separator. Treated storm water from the oil/water separator is discharged to the receiving water.

Drainage from operational areas outside the tank containment areas include the transmix off-loading rack, the aviation loading rack, and the loading pier. Spilled product and contaminated storm water from these areas is collected via drains and berms and pumped to the slop tank. Tank water draws from the slop tank are treated via a mobile treatment system, and the wastewater is disposed of offsite as non-hazardous waste. Recovered product from the transmix tank and slop tank are reprocessed off-site.

The Facility tests the fire suppression system once a year. The Discharger has confirmed that fire suppression test water is no longer discharged to the receiving water. The fire suppression test water is either allowed to evaporate and percolate or collected via drains and berms and pumped to the slop tank for treatment. This Order does not authorize the discharge of fire suppression test water directly to the receiving water.

B. Discharge Points and Receiving Waters

The Facility discharges up to 0.050 MGD of treated storm water through Discharge Point No. 001 (Latitude 33°, 45', 30", Longitude -118°, 17', 30") into the Southwest Slip of Los Angeles Inner Harbor, a water of the United States. The receiving water is part of the Dominguez Channel and Los Angeles/Long Beach Harbors Watershed Management Area.

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

Effluent limitations contained in the existing Order for discharges from Discharge Point No. 001 (Monitoring Location EFF-001) and representative monitoring data from the term of the previous Order are as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Historic Effluent Limitations			Monitoring Data (From July 2008 – To December 2013)	
		Average Monthly ⁸	Maximum Daily	Instantaneous Minimum and Maximum	Highest Average Monthly Discharge	Highest Daily Discharge
Biochemical Oxygen Demand (5-day) @ 20°C	mg/L	20	30	--	2.7	2.7
Total Suspended Solids	mg/L	50	75	--	19	33
Oil and Grease	mg/L	10	15	--	ND	ND
pH	standard units	--	--	6.5-8.5	6.7-7.96 ¹	
Copper, Total Recoverable (Final) ²	µg/L	2.9	5.8	--	4.8	4.8
Copper, Total Recoverable (Interim) ³	µg/L	--	20	--	--	19
Lead, Total Recoverable (Final) ²	µg/L	7.0	14	--	8.2	8.2
Lead, Total Recoverable (Interim) ³	µg/L	--	220	--	--	57
Nickel, Total Recoverable (Final) ²	µg/L	6.8	14	--	< 2	<2
Nickel, Total Recoverable (Interim) ³	µg/L	--	8.6	--	--	7.7
TCDD-Equivalents (Final) ²	µg/L	1.4E-08	2.8E-08	--	1.1E-05	1.1E-05
TCDD-Equivalents (Interim) ³	µg/L	--	1.11E-04	--	--	2.7E-05
Zinc, Total Recoverable (Final) ²	µg/L	47	95	--	89	89
Zinc, Total Recoverable (Interim) ³	µg/L	--	280	--	--	120
Settleable Solids	ml/L	0.1	0.3	--	0.2	0.2
Temperature	°F	--	--	86	--	--
Turbidity	NTU	50	75	--	31	43
Total Petroleum Hydrocarbons (TPH)	mg/L	--	100	--	--	<50
Acute Toxicity ⁴	% survival	5			60 ⁶	
Chronic Toxicity ⁴	TUc	1.0 ⁷			<1 TUc	

1. Range of measured values.
 2. Final Limits applicable after May 17, 2010.
 3. Interim Limits applicable July 4, 2008 through May 17, 2010.

4. Monitoring Trigger-not an effluent limitation.
5. Acute Toxicity
 - a. The average survival in the undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90 percent; and
 - b. No single test producing less than 70 percent survival.
6. Minimum percent survival observed in a single sample.
7. Monthly Median.
8. Average monthly limits are not included in this Order due to a material change. The effluent no longer includes fire suppression test water and now consists of stormwater only. Average monthly limits do not apply to the infrequent, short term discharges of stormwater.

D. Compliance Summary

Date	Monitoring Period	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
12/15/2008	4 th Quarter 2008	Report Deficiency	TCDD not reported	None	1.4 E-08	µg/L
12/15/2008	4 th Quarter 2008	Monitoring Trigger	Acute Toxicity	60%	90%	% Survival
2/16/2009	1 st Quarter 2009	Average Monthly Effluent Limitation (AMEL)	Settleable Solids	0.13	0.10	ml/L/hr
12/13/2009	4 th Quarter 2009	AMEL	Settleable Solids	0.20	0.10	ml/L/hr
12/31/2010	4 th Quarter 2010	AMEL	TCDD-equivalents	1.25E-05	1.4E-08	µg/L
12/19/2010	4 th Quarter 2010	Maximum Daily Effluent Limitation (MDEL)	TCDD-equivalents	1.25E-05	2.8E-08	µg/L
12/31/2010	4 th Quarter 2010	AMEL	TCDD-equivalents	2.4E-09	5.8E-12	lbs/day
12/19/2010	4 th Quarter 2010	MDEL	TCDD-equivalents	2.4E-09	1.2E-11	lbs/day
12/31/2010	4 th Quarter 2010	AMEL	Copper	4.8	2.9	µg/L
12/31/2010	4 th Quarter 2010	AMEL	Lead	8.2	7.0	µg/L
12/31/2010	4 th Quarter 2010	AMEL	Zinc	89	47	µg/L
12/24/2010	2010 Annual Report	Monthly Median Trigger	Chronic Toxicity	1.0	1.0	TUc

The Regional Water Board issued Settlement Offer No. R4-2014-0002 for \$18,000 on January 3, 2014, to address seven violations for copper, lead, zinc and TCDD equivalents that occurred during the fourth quarter of 2010. The Discharger accepted the offer on February 2, 2014. The fine, in the amount of \$18,000, was paid on April 24, 2014.

E. Planned Changes

Regional Water Board conducted an inspection of the Facility on January 6, 2014. During that inspection the Discharger explained that they are in the process of preparing to demolish approximately fifty percent of the Facility as part of closing out the lease with the Port of Los Angeles. The Discharger will remove above ground structures from the Facility including: ten aboveground storage tanks, piping, containment walls, pumps, and some structures on the docks.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

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

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

C. State and Federal Laws, Regulations, Policies, and Plans

1. Water Quality Control Plan. The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region (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. Requirements in this Order implement the Basin Plan. In addition, the Basin Plan implements State Water Board Resolution 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 Los Angeles Inner Harbor is a salt water body and is therefore exempt from Resolution No. 88-63. Beneficial uses applicable to the Los Angeles Inner Harbor are as follows:

Table F-3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Los Angeles Inner Harbor	<p><u>Existing:</u> Industrial service supply (IND); navigation (NAV); non-contact water recreation (REC-2); commercial and sport fishing (COMM); marine habitat (MAR); preservation or rare, threatened or endangered species (RARE).</p> <p><u>Potential:</u> Water contact recreation (REC-1) and shellfish harvesting (SHELL).</p>

2. 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 Water Board) as Resolution No. 95-84 on November 16, 1995, states that:

"It is the policy of the State Water 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 Water Board only when the Regional Water 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 discharge from the Facility discharges into the Los Angeles Inner Harbor, within the enclosed bay, the discharge is comprised primarily of storm water runoff and fire protection test water, 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.

3. **Thermal Plan.** The State Water Board adopted the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan) on 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 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.
4. **Sediment Quality Plan.** The State Water Board adopted the *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1, Sediment Quality* (Sediment Quality Plan) on September 16, 2008, and it became effective on August 25, 2009. The Sediment Quality Plan establishes: 1) narrative sediment quality objectives for benthic community protection from exposure to contaminants in sediment and to protect human health; and 2) a program of implementation using a multiple lines of evidence approach to interpret the narrative sediment quality objectives. Requirements of this Order implement the Sediment Quality Plan.
5. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA 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, U.S. EPA 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 federal water quality criteria for priority pollutants.
6. **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 U.S. EPA 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 U.S. EPA 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.
7. **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 C.F.R. section 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.

8. **Antidegradation Policy.** Federal regulation 40 C.F.R. 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 68-16. Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 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 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.
9. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict 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.
10. **Endangered Species Act Requirements.** 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, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 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, including protecting rare, threatened, or endangered species. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

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 waste load allocations (WLAs) for point sources and load allocations (LAs) for non-point sources, as appropriate.

The USEPA 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.

This Facility discharges into the Los Angeles Inner Harbor. The 2010 State Water Resources Control Board (State Water Board) California 303(d) List includes the classification of the Los Angeles-Long Beach Inner Harbor. The pollutants/stressors of concern include: beach closures (pathogens), benthic community effects, benzo(a)pyrene (3,4-benzopyrene-7-d), chrysene, copper, dichlorodiphenyltrichloroethane (DDT), polychlorinated biphenyls (PCBs), sediment toxicity, and zinc.

Two TMDLs have been developed that address some of the stressors listed for the Los Angeles Inner Harbor. Following is a summary of these TMDLs.

1. **Bacteria TMDL.** The Regional Water Board approved the *Los Angeles Harbor Bacteria TMDL* (Bacteria TMDL) through Resolution 2004-011 on July 1, 2004. The State Water Board, Office of Administrative Law (OAL), and USEPA approved the TMDL on October 21, 2004, January 5, 2005, and March 1, 2005, respectively. The Bacteria TMDL became effective on March 10, 2005. The Bacteria TMDL addresses Inner Cabrillo Beach and the Main Ship Channel of the Los Angeles Harbor. The discharge from this Facility flows into Slip No. 5 of the Los Angeles Inner Harbor, upstream of the Main Ship Channel. Therefore, the WLAs included in the Bacteria TMDL are not included in this Order. The discharge from the Facility is in the Los Angeles Harbor watershed and one of the stressors identified is beach closures (pathogens). Hence, the Order includes monitoring for bacteria based on the applicable Basin Plan criteria.
2. **Harbor Toxics TMDL.** The Regional Water Board adopted Resolution No. R11-008 on May 5, 2011, that amended the Basin Plan to incorporate the *TMDL for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbors Waters* (Harbor Toxics TMDL). The Harbor Toxic TMDL was approved by the State Water Board on February 7, 2012, the OAL on March 21, 2012, and the USEPA on March 23, 2012. The Harbor Toxics TMDL contains requirements applicable to this discharge. Therefore, this Order contains effluent limitations and monitoring requirements based on the TMDL.

For the Los Angeles Inner Harbor the Harbor Toxics TMDL included:

- a. Sediment interim concentration-based allocations (in mg/kg sediment) for copper, lead, zinc, DDT, PAHs, and PCBs (Attachment A to Resolution No. R11-008, p.11).
 - b. Water column final concentration-based WLAs ($\mu\text{g/L}$) for copper, lead, zinc, 4,4'-DDT and total PCBs (Attachment A to Resolution No. R11-008, p. 13).
 - c. Provisions for monitoring discharges and/or receiving waters during the TMDL's 20 year implementation schedule to determine attainment with waste load and load allocations as appropriate.
9. **Implementation of the Harbor Toxics TMDL**

This Order requires final water quality-based effluent limits (WQBELs) that are statistically-calculated based on saltwater final concentration-based WLAs (in $\mu\text{g/L}$, total metal) for copper (3.73), lead (8.52), zinc (85.6), 4,4'-DDT (0.00059) and total PCBs (0.00017) (referred to in this Order as CTR TMDL-based WLAs), converted from saltwater CTR criteria using CTR saltwater default translators and relevant implementation provisions in section 1.4 of the State Implementation Policy. The TMDL includes provisions for a 20 year implementation schedule when warranted

This Order also includes monitoring thresholds based on the TMDL's interim sediment allocations (in mg/kg sediment) for copper (154.1), lead(145.5), zinc (362.0), PAHs (90.30), DDT (0.341), and PCBs (2.107), and associated sediment monitoring requirements for the effluent. Regardless of these monitoring thresholds, the Discharger shall ensure that effluent concentrations and mass discharges do not exceed levels that can be attained by performance of the Facility's treatment technologies existing at the time of permit issuance, reissuance, or modification. The TMDL's interim sediment allocations were developed to ensure that the beneficial uses of the Los Angeles Inner Harbor are protected.

The water column CTR TMDL-based WLAs for copper, lead, zinc, 4,4'-DDT, and total PCBs were developed to ensure that the beneficial uses of the Los Angeles Inner Harbor are preserved. However, no water column CTR TMDL-based WLAs were assigned for PAHs in the Greater Harbor Waters (includes Los Angeles/Long Beach Inner and Outer

Harbors). Therefore, this Order sets performance goals for the PAHs; benzo(a)pyrene and chrysene, to ensure proper implementation of the TMDL's interim sediment allocations for this discharge.

During each reporting period, if effluent monitoring results exceed both a TSS effluent limit and a CTR TMDL-based effluent limit or performance goal for copper, lead, zinc, 4,4'-DDT, total PCBs, benzo(a)pyrene, or chrysene, then the Discharger has not demonstrated attainment with the interim sediment allocations stipulated by the Harbor Toxics TMDL, Resolution No. R11-008 and implementation of the effluent sediment monitoring program is required for that priority pollutant. Sediment monitoring of the effluent shall begin during the first discharge event following the effluent exceedances. An effluent sediment monitoring result at or below the monitoring thresholds in Table 6 of this Order demonstrates attainment with the monitoring thresholds and additional sediment monitoring of the effluent is not required. A sediment monitoring result that exceeds the monitoring thresholds requires additional sediment monitoring of the effluent during discharge, but not more frequently than once per year, until the three-year average concentration for sediment monitoring results is at or below the monitoring thresholds.

10. Performance Goals for Individual PAHs, Benzo(a)pyrene, and Chrysene

The performance goals for benzo(a)pyrene and chrysene are intended to ensure that effluent concentrations and mass discharges do not exceed levels that can be attained by performance of the Facility's treatment technologies existing at the time of permit issuance, reissuance, or modification. These performance goals are not enforceable effluent limitations. They act as triggers to determine when sediment monitoring of the effluent is required for these compounds.

CTR human health criteria are not promulgated for total PAHs. Therefore, performance goals are based on CTR human health criteria for the individual PAHs, benzo(a)pyrene (0.049 µg/L) and chrysene (0.049 µg/L). Benzo(a)pyrene and chrysene are selected because the State's 2010 303(d) List classifies the Los Angeles/Long Beach Inner Harbor as impaired for these PAH compounds.

11. Harbor Toxics TMDL Water Column, Sediment, and Fish Tissue Monitoring for the Greater Los Angeles and Long Beach Harbor Waters Compliance Monitoring Program

The TMDL's implementation schedule to demonstrate attainment of WLAs and load allocations is 20 years after the TMDL effective date for a Discharger who justifies the need for an associated time included in a compliance plan. During this period, the Discharger is required, either individually or with a collaborating group, to develop a monitoring and reporting plan (Monitoring Plan) and quality assurance project plan (QAPP) for the water column, sediment, and fish tissue in the Greater Los Angeles and Long Beach Harbor. These plans shall follow the "TMDL Element – Monitoring Plan" provisions in Attachment A to Resolution No. R11-008. The Discharger may join a group of responsible parties that has developed the Monitoring Plan and QAPP, or choose to develop a site specific plan that includes these elements. Within 90 days of the effective date of this Order the Discharger must submit to the Regional Board notification of whether Kinder Morgan Liquids Terminal, LLC, Los Angeles Harbor Terminal will be participating with an organized group of Responsible Parties to complete the regional monitoring required by the Harbor Toxics TMDL, or if the Discharger will be developing a site specific plan. If the Discharger is joining a group, confirmation of that involvement must be submitted at that time. If developing a site specific plan, that plan is due to the Regional Board 12 months from the effective date of this Order. Regional Board staff will

review the plan and provide an opportunity for public comment. Six months after Executive Officer approval the Discharger must implement the plan.

The provisions included in this Order implement and are consistent with the assumptions and requirements of all WLAs established in TMDLs that are applicable to the discharge from this Facility.

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: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. 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 existing Order established effluent limitations for a number of pollutants believed to be present in the discharge of storm water from petroleum storage facilities. Effluent limitations in the existing permit were established for oil and grease, pH, and temperature, total suspended solids (TSS), turbidity, total petroleum hydrocarbons (TPH), settleable solids, biochemical oxygen demand (5-day at 20°C [BOD₅]), copper, lead, nickel, zinc, cyanide, TCDD-equivalents, and acute toxicity. These constituents were identified based on a review of pollutants commonly found in discharges from petroleum storage facilities, materials stored or used on-site, and/or were previously detected in the effluent. As such, they remain pollutants of concern. Additional pollutants of concern commonly found in storm water from petroleum storage facilities include sulfides, benzene, ethylbenzene, toluene, total phenols and xylenes.

Pollutants identified on the 2010 303(d) List for the Los Angeles-Long Beach Inner Harbor, identified in Section III.D of this Fact Sheet, are also considered pollutants of concern. Storm water may carry a combination of pollutants that may contribute to acute toxicity. Therefore, toxicity, an indicator of the presence of pollutants, is also considered a pollutant of concern.

The Harbor Toxics TMDL is applicable to discharges from this Facility and have established applicable WLAs. Therefore, copper, lead, zinc, dichlorodiphenyltrichloroethane (DDT), poly-aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs) are pollutants of concern, copper, lead, and zinc have previously been identified as pollutants of concern.

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 limitations 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 effluent limitations, where appropriate, to comply with 40 C.F.R. section 122.45(f)(1).

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 to the Los Angeles Inner Harbor that are regulated by NPDES permits.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 C.F.R. section 122.44 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 40 C.F.R. 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 existing performance by well-operated facilities 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 U.S. EPA to develop Effluent Limitation, Guidelines (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 C.F.R. section 125.3 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 Regional Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

2. Applicable Technology-Based Effluent Limitations

As the discharge from this Facility is limited to treated storm water, there are no applicable national ELGs. Where USEPA has not yet developed technology-based standards for a particular industry or a particular pollutant, CWA section 402(a)(1) and 40 C.F.R. section 125.3 authorize the use of BPJ to derive technology-based effluent limitations on a case-by-case basis. When BPJ is used, the permit must reflect specific factors outlined at 40 C.F.R. section 125.3. The previous Order No. R4-2008-0031

established technology-based effluent limitations for BOD, oil and grease, total suspended solids (TSS), settleable solids, turbidity and total petroleum hydrocarbons (TPH). This Order retains the effluent limitations from the previous order for these pollutants.

The technology-based effluent limitations for BOD, TSS, and oil and grease are based on BPT and BCT. In setting these limitations, the Regional Water Board considered the factors listed in 40 C.F.R. section 125.3(d)(1) and 125.3(d)(2), respectively. The technology-based effluent limitations for settleable solids and turbidity are based on BPT and BAT. In setting these limitations, the Regional Water Board considered the factors listed in 40 C.F.R. section 125.3(d)(1) and 125.3(d)(3), respectively.

The Discharger's past performance demonstrates the ability to consistently meet the effluent limitations for BOD, oil and grease, TSS, settleable solids (last exceedance December 13, 2009), turbidity and (TPH) established in the previous order. As the current technology used by the Discharger is capable of meeting the limitations, no changes to equipment, facilities, process, or controls are necessary, thereby incurring no additional costs or non-water quality environmental impacts.

A summary of the technology-based effluent limitations for Discharge Point 001 is shown in Table F-5.

Table F-6. Summary of Technology-based Effluent Limitations

Parameter	Units	Effluent Limitations
		Maximum Daily
BOD ₅ 20°C	mg/L	30
Oil and Grease	mg/L	15
Total Suspended Solids	mg/L	75
Settleable Solids	ml/L	0.3
Turbidity	NTU	75
Total Petroleum Hydrocarbons	µg/L	100

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA Section 301(b) and 40 C.F.R. 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) of 40 C.F.R. requires 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) U.S. EPA 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 for discharges from the Facility, and if necessary for calculating WQBELs, are contained in the USEPA Technical Support Document for Water Quality-Based Toxics Control (TSD) for storm water discharges and in the SIP for non-storm water discharges. The TSD in Section 3.3.8, the first paragraph on page 64 states: "The statistical approach shown in Box 3-2 or an analogous approach developed by a regulatory authority can be used to determine the reasonable potential." The Regional Water Board has determined 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 to calculate WQBELs for storm water discharges as well. Therefore, in this Order the SIP methodology is used to evaluate reasonable potential for storm water discharges through Discharge Point No. 001.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

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 Angeles Inner Harbor 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.

The Basin Plan includes a narrative objective for bioaccumulative toxic substances, which prohibits the presence of toxic pollutants at levels that will bioaccumulate in aquatic life to levels that are harmful to aquatic life or human health. The CTR includes criteria for 2,3,7,8-TCDD for protection of human health when aquatic organisms are consumed. There are many congeners of 2,3,7,8-TCDD that exhibit similar toxic effects. The U.S. EPA has published toxic equivalency factors for 17 of the congeners which express the relative toxicities of the congeners compared to 2,3,7,8-TCDD. The narrative objective for bioaccumulative substances is translated into a numeric objective for 2,3,7,8-TCDD and these 17 congeners (2,3,7,8-TCDD equivalents) based on the criteria in the CTR and the toxic equivalency factors.

Priority pollutant water quality criteria in the CTR are applicable to the Los Angeles Inner Harbor. 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. As indicated in the Harbor Toxics TMDL, the salinity in the Los Angeles-Long Beach Inner Harbor at the location of the discharge supports marine aquatic life. Therefore, the CTR criteria for saltwater aquatic life or human health for consumption of organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of the Los Angeles Inner Harbor.

Table F-6 summarizes the applicable water quality criteria/objective for priority pollutants reported in detectable concentrations in the effluent or receiving water during the most recent discharges.

Table F-7. Applicable Water Quality Criteria

CTR No.	Constituent	Selected Criteria	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	
1	Antimony	4,300	N/A ¹		--	--	N/A ¹	4,300
2	Arsenic	36			69	36		--
6	Copper ²	3.7 ³			5.8	3.7		--
7	Lead ²	8.5 ³			221	8.5		--
9	Nickel ²	8.3			75	8.3		--
13	Zinc ²	86 ³			95	86		--
16	2,3,7,8-TCDD	1.4 x 10 ⁻⁸			--	--		1.4 x 10 ⁻⁸
	TCDD Equivalents	1.4 x 10 ⁻⁸			--	--		1.4 x 10 ⁻⁸

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

² Criteria for metals are converted from saltwater dissolved CTR criteria using CTR saltwater default translators.

³ These values are the same as those listed in Attachment A to Resolution R11-008.

3. Determining the Need for WQBELs

In accordance with section 1.3 of the SIP, the Regional Water Board conducts a Reasonable Potential Analysis (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.

The RPA was performed for the priority pollutants regulated in the CTR for which data are available. Effluent data was collected from 9 discharge events from January 7, 2008 through December 19, 2010. The Facility has not discharged to the receiving water since December 19, 2010. No receiving water data was available for this monitoring period. Based on the RPA, pollutants that demonstrate reasonable potential include copper, lead and zinc. Reasonable potential was also demonstrated for TCDD equivalents, but reasonable potential was not demonstrated for the individual congener 2,3,7,8-TCDD (dioxin). Dioxin is the compound listed in the CTR criteria. The results of the RPA are summarized below.

Table F-8. Summary Reasonable Potential Analysis

Constituent	Applicable Water Quality Criteria (C)	Max Effluent Conc. (MEC)	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
Antimony	4,300	4.9	--	No	MEC < C
Arsenic	36	2.4	--	No	MEC < C
Copper	3.7	19	--	Yes	MEC ≥ C ¹
Lead	8.5	57	--	Yes	MEC ≥ C ¹
Nickel	8.3	7.7	--	No	MEC < C
Zinc	86	120	--	Yes	MEC ≥ C ¹
2,3,7,8-TCDD	1.40 x 10 ⁻⁸	ND	--	No	MEC < C
TCDD Equivalents	1.40 x 10 ⁻⁸	2.67 x 10 ⁻⁵	--	Yes	MEC ≥ C

¹ Effluent limitations are established in accordance with the Harbor Toxics TMDL.

4. WQBEL Calculations

- a. If 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.
 - iii. Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Regional Water Board.
- b. WQBELs for TCDD Equivalents are based on monitoring results and following the procedure based on the steady state model, available in Section 1.4 of the SIP
- c. The Harbor Toxics TMDL establishes the final WLAs for copper, lead, zinc, 4,4'-DDT, and total PCBs; WQBELs for these constituents are calculated following procedures in Section 1.4 of the SIP.
- d. 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 being allowed. However, in accordance with the reopener provision

in section V.C.1.e in the Order, 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.

e. WQBELs Calculation Example

Using total recoverable copper as an example, the following demonstrates how WQBELs were established for this Order. The tables in Attachment J summarize the development and calculation of all WQBELs for this Order using the process described below.

The process for developing these limits is in accordance with Section 1.4 of the SIP. For non-TMDL constituents, two sets of MDEL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health. The MDEL limitations for aquatic life and human health are compared, and the most restrictive MDEL are selected as the WQBEL. For Harbor Toxics TMDL constituents, a single set of MDEL values are calculated from the WLA as provided in the TMDL. Attachment J summarizes the development and calculation of all WQBELs for this Order using the process described below.

Calculation of aquatic life MDEL:

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

$$\begin{aligned} \text{ECA} &= C + D(C-B) \text{ when } C > B, \text{ and} \\ \text{ECA} &= C \quad \text{when } C \leq B, \end{aligned}$$

Where

- C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. For discharges from the Facility, criteria for saltwater are independent of hardness and pH.
- D = The dilution credit, and
- B = The ambient background concentration

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

$$\text{ECA} = C$$

When a WLA has been established through a TMDL for a parameter, the WLA is set equal to the ECA. The Harbor Toxics TMDL establishes the copper water column concentration-based WLA as equal to the saltwater chronic aquatic life criterion.

For total recoverable copper, the applicable WLA identified for the Los Angeles Inner Harbor is

$$\text{ECA} = \text{WLA}_{\text{chronic}} = 3.73 \mu\text{g/L}$$

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. Since there are less than 10 samples, the CV is equal to 0.6 for all constituents.

For total recoverable copper, based on the Harbor Toxics TMDL, 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):

No. of Samples	CV	ECA Multiplier _{acute}	ECA Multiplier _{chronic}
0	0.60	Not Applicable	0.527

Since the WLA for total recoverable copper is based on the chronic criterion (i.e., no WLA was established as equal to the acute criterion), the chronic multiplier will be used to develop the LTA and effluent limitations.

$$LTA_{copper} = 3.73 \mu\text{g/L} \times 0.527 = 1.97 \mu\text{g/L}$$

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

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

For total recoverable copper, based on the Harbor Toxics TMDL, since there is only one LTA,

$$LTA_{copper} = 1.97 \mu\text{g/L}$$

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as 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 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.

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

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 copper, based on the Harbor Toxics TMDL, the following data were used to develop the MDEL for effluent limitations using equations provided in section 1.4, Step 5 of the SIP:

No. of Samples Per Month	CV	Multiplier _{MDEL 99}
4	0.6	3.11

Total Recoverable Copper:

$$\text{MDEL} = 1.97 \mu\text{g/L} \times 3.11 = 6.1 \mu\text{g/L}$$

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

$$\text{AMEL}_{\text{human health}} = \text{ECA}_{\text{human health}}$$

Copper does not have human health criteria for the consumption of organisms only defined in the CTR or in the Harbor Toxics TMDL. The Harbor Toxics TMDL includes WLAs for 4,4'-DDT and total PCBs, that are set equal to CTR human health criteria for the consumption of organisms only. For demonstration, the calculated effluent limitations for 4,4'-DDT, stemming from the Harbor Toxics TMDL, are shown.

For 4,4'-DDT:

$$\text{AMEL}_{\text{human health}} = 0.00059 \mu\text{g/L}$$

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.

$$\text{MDEL}_{\text{human health}} = \text{AMEL}_{\text{human health}} \times (\text{Multiplier}_{\text{MDEL}} / \text{Multiplier}_{\text{AMEL}})$$

For 4,4'-DDT, 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	0.6	3.11	1.55	2.0

For 4,4'-DDT:

$$\text{MDEL}_{\text{human health}} = 0.00059 \mu\text{g/L} \times 2.0 = 0.00118 \mu\text{g/L}$$

Step 7: Select the MDEL based on aquatic life and human health as the WQBEL for the Order.

For copper, lead, and zinc, there are no human health (Consumption of Organism Only) criteria, and WLAs have been established based on the Harbor Toxics TMDL, therefore the established effluent limitations are based on aquatic life criteria used for the Harbor Toxics TMDL WLAs. For 4,4'-DDT and total PCBs, there are no aquatic life criteria and WLAs have been established based on the Harbor Toxics TMDL, therefore the established effluent limitations are based on human health criteria used for the Harbor Toxics TMDL WLAs. For TCDD equivalents, there are no aquatic life criteria; therefore effluent limitations are based on human health criteria. These limitations are expected to be protective of the beneficial uses. WQBELs Based on Basin Plan Objectives.

5. WQBELs Based on Basin Plan Objectives

These Basin Plan Objectives were evaluated with respect to effluent monitoring data and Facility operations:

Table F-9. Applicable Basin Plan Numeric Water Quality Objectives

Constituent	Units	Water Quality Objectives
pH	s.u.	The pH of bays and estuaries shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge.
Ammonia	mg un-ionized NH ₃ /L	<i>For Waters where Salinity is equal to or greater than 10 parts per thousand (ppt) more than 95% of the time:</i> 4-day average = 0.035 un-ionized NH ₃ /L 1-hour average = 0.233 un-ionized NH ₃ /L
Bacteria	MPN/100ml	<i>Marine Waters Designated for Water Contact Recreation (REC-1)</i> <u>Rolling 30-day Geometric Means Limits</u> i. Total coliform density shall not exceed 1,000/100 ml. ii. Fecal coliform density shall not exceed 200/100 ml. iii. Enterococcus density shall not exceed 35/100 ml. <u>Single Sample Limits</u> i. Total coliform density shall not exceed 10,000/100 ml. ii. Fecal coliform density shall not exceed 400/100 ml. iii. Enterococcus density shall not exceed 104/100 ml. iv. Total coliform density shall not exceed 1,000/100 ml, if the ratio of fecal-to-total coliform exceeds 0.1.
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. The effluent limitation for pH is consistent with the previous Order.
- b. **Ammonia.** No effluent or receiving water data were available to evaluate the discharge with respect to ammonia concentrations in the receiving water. This Order requires effluent and receiving water monitoring to ensure compliance with Basin Plan Objectives for ammonia.
- c. **Bacteria.** The Discharger does not engage in activities that are likely to contribute bacteria to the effluent. However, the most recent monitoring event on December 12, 2010 detected the following levels: total coliform, 1,600/100 ml; fecal coliform, 500/100 ml; enterococci, ≥1,600/100 ml. The fecal to total coliform ratio was equal to 0.31. These results are in exceedance of the Basin Plan limitations for: total coliform, 1,000/100 ml (when ratio of fecal to total coliform exceeds 0.1); fecal coliform, 400/100 ml; and enterococci, 104/100 ml. Based on these results, there is reasonable potential for the

discharge to cause or contribute to an exceedance of the water quality standard for bacteria in the receiving water. Furthermore, the Southwest Slip, within the Los Angeles-Long Beach Inner Harbor is identified on the 2010 303(d) list as impaired for bacteria. In addition, a Bacteria TMDL has been developed for the Inner Cabrillo Beach and the Main Ship Channel of the Los Angeles Inner Harbor. Therefore, this Order includes bacteria limitations based on water quality standards (WQS) applicable to the Los Angeles Inner Harbor. These WQS (and WQBELs) are identical to the WQS used to develop the Bacteria TMDL that is applicable to the Main Ship Channel immediately downstream of the Southwest Slip.

- d. Dissolved Oxygen.** This Order addresses dissolved oxygen through effluent monitoring and receiving water limitations.
- 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.** This Order addresses the WQO for temperature, through interpretation of the Thermal Plan and the White Paper, as described in section III.C.3 of this Fact Sheet.

6. Whole Effluent Toxicity (WET)

Whole effluent toxicity (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 measures mortality. A chronic toxicity test 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.

a. Acute Toxicity

This Order includes acute toxicity limitations and requires acute toxicity monitoring. In accordance with the Basin Plan, 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. Acute toxicity provisions in the Order are derived from the Basin Plan’s toxicity standards (Basin Plan 3-16 and 3-17). The provisions require the Discharger to accelerate acute toxicity monitoring and take further actions to identify the source of toxicity and to reduce acute toxicity when it is determined to be present.

b. Chronic Toxicity

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 existing permit had triggers for additional monitoring for both chronic and acute toxicity. Data submitted by the Discharger shows exceedances of both of these triggers. Recent information indicates that chronic toxicity is a more stringent measure of the aggregate toxic properties of the discharge. A chemical at a low concentration can have chronic effects but no acute effects. Therefore, based on best professional judgment, an effluent limitation for chronic toxicity is included in this Order.

7. Final WQBELs

Table F-11. Summary of Water Quality-Based Effluent Limitations—for Discharge Point 001

Parameter	Units	Effluent Limitations		
		Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	standard units	---	6.5	8.5
Copper, Total Recoverable	µg/L	6.1	---	---
	lbs/day ¹	0.0025	---	---
Lead, Total Recoverable	µg/L	14		
	lbs/day ¹	0.0058		
Zinc, Total Recoverable	µg/L	141	---	---
	lbs/day ¹	0.059	---	---
4,4'-DDT	µg/L	0.001	---	---
	lbs/day ¹	5.0E-07	---	---
Total PCBs	µg/L	0.0003	--	--
	lbs/day ¹	1.4E-07	--	--
Temperature	Deg. F	---	---	86
Acute Toxicity	% survival and Pass or Fail for TST approach	2		
Chronic Toxicity	TUc and Pass or Fail for TST approach	3		

¹ Mass-based effluent limitations based on a maximum discharge flow rate of 0.050 MGD.

² The acute toxicity of the effluent shall be such that: 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 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).

³ The monthly median limit for chronic toxicity of 100% effluent in a critical life stage test is 1.0 TUc and the maximum daily limit for chronic toxicity of 100% effluent in a critical life stage test is 1.6 TUc.

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. 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. The effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, with the exception of effluent limitations for copper and zinc.

An exception to the anti-backsliding requirements is allowed at CWA section 402(o)(2) in the case where: *“Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance,”* and *“the cumulative effect of [the] revised allocations results in a decrease in the amount of pollutants discharged into the concerned waters...”* The limits for copper and zinc in this Order were calculated from final concentration-based WLAs established in the Harbor Toxics TMDL. The previous Order No. R4-2008-0031 was adopted several years prior to the adoption of the Harbor Toxics TMDL. Much of the information that support the WLAs established in the Harbor Toxics TMDL was not available at the time of issuance of the previous permit. The new, less stringent effluent limitations for copper and zinc are allowed under the exception to the anti-backsliding requirements since new information indicates the limits will result in attainment of the beneficial uses and the cumulative effect of the WLAs established in the Harbor Toxics TMDL will decrease the amount of pollutants discharged into the Los Angeles Inner Harbor.

Order No. R4-2008-0031 included average monthly effluent limits (AMELs) and chronic toxicity limits. The Discharger has confirmed that there has been a material alteration of the permitted facility in that fire suppression test water is no longer discharged to the receiving water. The discharge now consists only of stormwater, and discharges are infrequent and of short duration. There has not been a discharge of stormwater since 2010. AMELs are not included in this Order due to the material change in the facility. This exception to the anti-backsliding requirement is allowed at CWA section 402(o)(2) in the case where: *“Material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation.”* The fact that fire suppression test water is no longer included in the discharge is a material change to the permitted facility.

2. Antidegradation Policies

Section 131.12, 40 C.F.R., 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. The Regional Water Board’s Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies.

The permitted discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16 because there will be no lowering of water quality of receiving waters. This Order does not provide for an increase in the permitted design flow or allow for a reduction in the level of treatment. Any change in the treatment level will be detected by monitoring required by the MRP. The final limitations in this Order meet the requirements of the SIP and hold the Discharger to performance levels that will not cause or contribute to water quality impairment. Further,

compliance with these requirements will result in the use of best practicable treatment or control of the discharge. Hence, the permitted discharge is consistent with the antidegradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

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 BOD₅, TSS, oil and grease, settleable solids, turbidity, and TPH. Restrictions on these constituents 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.

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 40 C.F.R. section 131.38. The scientific procedures for calculating the individual WQBELs for priority pollutants are based on the 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). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

4. Endangered Species Act Requirements

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 USCA 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.

5. Mass-based Effluent Limitations

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

$$\text{Mass (lbs/day)} = \text{flow rate (MGD)} \times 8.34 \times \text{effluent limitation (mg/L)}$$

where: Mass = mass limitation for a pollutant (lbs/day)

Effluent limitation = concentration limit for a pollutant (mg/L)

Flow rate = discharge flow rate (MGD)

Table F-12. Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitations			Performance Goals ¹	Basis ²
		Maximum Daily	Instantaneous Minimum	Instantaneous Maximum		
Conventional Pollutants						
Biochemical Oxygen Demand (5-day) @ 20°C	mg/L	30	--	--	--	E, BPJ
	lbs/day ³	13	--	--	--	
Total Suspended Solids	mg/L	75	--	--	--	E, BPJ
	lbs/day ³	31	--	--	--	
Oil and Grease	mg/L	15	--	--	--	E, BPJ
	lbs/day ³	6.3	--	--	--	
pH	standard units	--	6.5	8.5	--	E, BP
Bacteria	CFU/100 ml or MPN/100 ml	4				BP
Non-conventional Pollutants						
Acute Toxicity	% survival and Pass or Fail for TST	5				BPJ
Chronic Toxicity	TUc and Pass or Fail for TST approach	6				BPJ
Settleable Solids	ml/L	0.3	--	--	--	E, BPJ
Temperature	°F	--	--	86	--	E, BP, TP
TPH ⁷	µg/L	100	--	--	--	E, BPJ
	lbs/day ³	0.042	--	--	--	
Turbidity	NTU	75	--	--	--	E, BPJ
Priority Pollutants						
Copper, Total Recoverable ⁹	µg/L	6.1	--	--	--	CTR/SIP/TMDL
	lbs/day ³	0.0025	--	--	--	
Lead, Total Recoverable ⁹	µg/L	14	--	--	--	CTR/SIP/TMDL
	lbs/day ³	0.0058	--	--	--	
Zinc, Total Recoverable ⁹	µg/L	141	--	--	--	CTR/SIP/TMDL
	lbs/day ³	0.059	--	--	--	
4,4'-DDT ⁹	µg/L	0.001	--	--	--	CTR/SIP/TMDL
	lbs/day ³	5.0E-07	--	--	--	
Total PCBs ^{8,9}	µg/L	0.0003	--	--	--	CTR/SIP/TMDL
	lbs/day ³	1.4E-07	--	--	--	

Parameter	Units	Effluent Limitations			Performance Goals ¹	Basis ²
		Maximum Daily	Instantaneous Minimum	Instantaneous Maximum		
TCDD-equivalents ¹⁰	µg/L	2.8E-08	--	--	--	BP
	lbs/day ³	1.2E-11	--	--	--	
PAHs						
Benzo(a)pyrene ⁹	µg/L	--	--	--	0.049	CTR
Chrysene ⁸	µg/L	--	--	--	0.049	CTR

1. Performance goals are intended to ensure that effluent concentrations and mass discharges do not exceed levels currently achieved by the permitted facility. These performance goals are not considered as limitations or standards for the regulation of the facility. They act as triggers to determine when sediment monitoring is required for this category of pollutants.
2. BP = Basin Plan; E = Existing; BPJ = Best professional judgment; CTR=California Toxics Rule; SIP=State Implementation Plan, TMDL = Harbor Toxics Total Maximum Daily Load
3. The mass limitations are based on a maximum flow of 0.050 MGD and is calculated as follows:

$$\text{Flow (MGD)} \times \text{Concentration (mg/L)} \times 8.34 \text{ (conversion factor)} = \text{lbs/day}$$
4. Bacteria limits are established for both geometric means and single samples. The Basin Plan includes and implementation provision for geometric means: *"The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period.)"*
 - a. Rolling 30-day Geometric Mean Limits
 - i. Total coliform density shall not exceed 1,000/100 ml.
 - ii. Fecal coliform density shall not exceed 200/100 ml.
 - iii. Enterococcus density shall not exceed 35/100 ml.
 - b. Single Sample Limits
 - i. Total coliform density shall not exceed 10,000/100 ml.
 - ii. Fecal coliform density shall not exceed 400/100 ml.
 - iii. Enterococcus density shall not exceed 104/100 ml.
 - iv. Total coliform density shall not exceed 1,000/100 ml, if the ratio of fecal-to total coliform exceeds 0.1.
5. The acute toxicity of the effluent shall be such that: 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 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).
6. The monthly median limit for chronic toxicity of 100% effluent in a critical life stage test is 1.0 TUC and the maximum daily limit for chronic toxicity of 100% effluent in a critical life stage test is 1.6 TUC.
7. TPH equals the sum of TPH gasoline (C4-C12), TPH diesel (C13-C22), and TPH oil (C23+).
8. Total PCBs (polychlorinated biphenyls) means the sum of chlorinated biphenyls whose analytical characteristics resembles those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
9. During each reporting period, if effluent monitoring results exceed both a TSS effluent limit and a CTR TMDL-based effluent limit or performance goal for copper, lead, zinc, 4,4-DDT, total PCBs, benzo(a)pyrene, or chrysene, implementation of the effluent sediment monitoring program is required for that priority pollutant. Sediment monitoring of the effluent shall begin during the first discharge event following the effluent exceedances. An effluent sediment monitoring result at or below the interim sediment allocation in Table 7, page 24 of this Order, demonstrates attainment with the interim sediment allocation and additional sediment monitoring of the effluent is not required. A sediment monitoring result that exceeds the interim sediment allocation requires additional sediment monitoring of the effluent during discharge but not more frequently than once per year until the three-year average concentration for sediment monitoring results is at or below the interim sediment allocation.
10. TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (ML), and toxicity equivalency factors (TEFs) are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. USEPA method 1613 may be used to analyze dioxin and furan congeners.

Dioxin-TEQ (TCDD Equivalents) = $\Sigma(C_x \times \text{TEF}_x)$
 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

E. Interim Effluent Limitations

1. Interim Effluent Limitations

Sampling data indicates that the effluent limits for copper, lead and TCDD equivalents are not immediately attainable. On April 1, 2014, the Discharger submitted to the Regional Water Board a Request for Compliance Schedule (for copper and lead) and a Request for Time Schedule Order (for TCDD equivalents). These requests included work plans for activities to be conducted over a period of 72 months to address the issues with the constituents of concern. Since the time schedule for completion of the actions in the work plans exceeds one year from the effective date of this Order, this Order includes interim effluent limitations and the dates for their achievement.

The maximum effluent concentrations detected during the previous permit cycle were 19 µg/L for copper, 57 µg/L for lead and 2.67E-05 µg/L for TCDD equivalents. The interim limits included here are based on the maximum effluent concentrations observed and they will expire on October 31, 2018. Regional Water Board Resolution No. R11-008, Attachment A (Harbor Toxics TMDL), states that interim allocations “are not intended to allow any decrease in current facility performance.” The Discharger must comply with the final limits for copper and lead starting November 1, 2018, and the final limit for TCDD equivalents starting July 3, 2018. Until the effective dates of the final limits, discharges from discharge point EFF-001 in excess of the following interim limitations are prohibited:

Table F-13. Interim Effluent Limitations.

Pollutant	Units	Maximum Daily Effluent Limitation
Total copper	µg/L	19
Total lead	µg/L	57
TCDD equivalents	µg/L	2.76E-05

2. Compliance Schedule

This permit includes a compliance schedule for copper and lead consistent with the implementation schedule in the Harbor Toxics TMDL On November 8, 2012, USEPA

authorized the Regional Water Board to include compliance schedules—provided they are consistent with the CWA and USEPA regulations, and the Harbor Toxics TMDL implementation plan—in NPDES permits issued to existing dischargers for WQBELs based on WLAs in the Harbor Toxics TMDL.

The Basin Plan includes a narrative objective for bioaccumulative toxic substances, which prohibits the presence of toxic pollutants at levels that will bioaccumulate in aquatic life to levels that are harmful to aquatic life or human health. The Basin Plan narrative criteria also states that “All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in, human, plant, animal, or aquatic life.” Regional Water Board staff have used the Basin Plan criteria to develop a numeric effluent limit for TCDD equivalents which include 2,3,4,8-TCDD and its sixteen congeners. Reasonable potential was demonstrated for TCDD equivalents, and the discharger has demonstrated an inability to consistently comply with the limit. Therefore, the compliance schedule for TCDD equivalents is included here. Inclusion of a compliance schedule for TCDD equivalents in the permit is consistent with the CWA , USEPA regulations, and the State’s compliance schedule policy (Resolution No. 2008-0025). The discharger has implemented and continues to evaluate and implement best management practices to control the transport of the contaminants offsite.

Kinder Morgan Liquids Terminal submitted a Storm Water Assessment and Feasibility Study Work Plan to Implement a Compliance Schedule for NPDES Permit CA0055816; and a Storm Water Assessment and Feasibility Study Work Plan to Implement a Time Schedule Order for NPDES Permit CA0055816; both dated March 28, 2014. These work plans included a proposed implementation schedule listing activities to be conducted over a time period of 72 months to address potential exceedances of copper, lead and TCDD equivalents. This proposed schedule would exceed the five year duration of the permit. Regional Water Board staff reviewed the proposal and concluded that an implementation schedule of four years would be sufficient to conduct the activities proposed in the work plan. The Discharger must comply with the following tasks with the estimated time for completion to achieve the final limitations specified in this Order.

Table F-14. Compliance Schedule.

Task	Starting Date/ Completion Date	Annual Progress Report Date
Assessment Activities		
Review storm water sampling procedures (1 month) <ul style="list-style-type: none"> Review of current sampling protocols 	November 1, 2014/ December 1, 2014	November 1, 2015
Conduct source identification activities (5 months) <ul style="list-style-type: none"> Collect storm water run-off samples at various locations throughout the facility during a variety of run-off events Evaluate the correlation between turbidity and the detected concentrations of copper, lead and dioxin Evaluate the correlation between demolition activities and chemical data obtained during the source identification and for evaluation of potential BMPs Conduct an audit of current storm water sampling protocol implemented at the Facility Update the Sampling and Analysis Plan including: monitoring locations, sampling frequencies, analytical methods, quality assurance protocol; ensuring that modifications comply with the NPDES permit Document source identification assessment activities and conclusions 	December 1, 2014/ May 1, 2015	November 1, 2015
Review/evaluate BMPs (15 months) <ul style="list-style-type: none"> Evaluate current BMPs (5 months) Identify/evaluate alternative BMPs using the following criteria (10months): <ul style="list-style-type: none"> Ability to remove metals and/or dioxin Cost-effectiveness of implementation Consistency with operational/safety constraints Document BMP assessment findings and conclusions 	May 1, 2015/ August 1, 2016	November 1, 2016
Feasibility Studies		
Review of alternative BMPs (7 months) <ul style="list-style-type: none"> Development of detailed cost estimates Preparation of likely implementation schedules Investigation of the specific permitting requirements Document alternatives review activities and identify storm water management alternatives to be evaluated 	August 1, 2016/ March 1, 2017	November 1, 2017
Evaluation of identified alternatives (10 months) <ul style="list-style-type: none"> Bench scale and/or pilot scale testing Evaluation of near-term and long-term effectiveness at meeting existing and likely future effluent limits Detailed evaluation of the constraints and benefits of each alternative Document alternatives evaluation activities and select alternative(s) to be used 	March 1, 2017/ January 1, 2018	November 1, 2018
Implementation of Selected Alternative(s) (10 months)	January 1, 2018/ November 1, 2018	February 1, 2019 (Final Report)
Compliance with Final Effluent Limits for TCDD Equivalents	July 3, 2018	--
Compliance with Final Effluent Limits for Total Copper and Total Lead	November 1, 2018	--

Kinder Morgan Liquids Terminal will submit to the Executive Officer annually (by November 1, 2015, November 1, 2016, November 1, 2017, and November 1, 2018) a progress report summarizing the progress and completion status of each task. The progress report must demonstrate that the Discharger will comply with the final effluent limits and other deadlines in the compliance schedule. Kinder Morgan Liquids Terminal will also submit to the Executive Officer by February, 2019, a final report on all compliance schedule tasks.

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 (40 C.F.R. § 131.12) and State Water Board Resolution No. 68-16. 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 PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. 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.

Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. 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) of 40 C.F.R. allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. 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 40 C.F.R. 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

Initial Investigation Toxicity Reduction Evaluation Workplan. This provision is based on section 4 of the SIP, Toxicity Control Provisions, which establishes minimum toxicity control requirements for implementing the narrative toxicity objective for aquatic life protection established in the basin plans of the State of California.

3. Best Management Practices and Pollution Prevention

- a. **Storm Water Pollution Prevention Plan (SWPPP).** The previous Order required the Discharger to develop and implement a SWPPP. This Order requires 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 Southwest Slip and/or the Los Angeles Inner Harbor. 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 section 122.44(k).
- b. **Best Management Practices Plan (BMPP).** The previous Order required the Discharger to develop and implement BMPs in order to reduce the amount of pollutants entering the discharge. This Order requires the Discharger to update and continue to implement the BMPP, consistent with Order No. R4-2008-0031. The purpose of the BMPP is to establish site-specific procedures that ensure proper operation and maintenance of equipment, to ensure that unauthorized non-storm water discharges (i.e. spills) do not occur at the Facility.

The Harbor Toxics TMDL addresses BMPs as follows:

“When permits for responsible parties are revised, the permits should provide mechanisms to make adjustments to the required BMPs as necessary to ensure their adequate performance. If proposed structural and non-structural BMPs adequately implement the waste load allocations then additional controls will not be necessary. Alternatively, if the proposed structural and non-structural BMPs selected prove to be inadequate then additional structural and non-structural BMPs or additional controls may be required.”

Special Provision V.C.3.b requires the Discharger to update and maintain a BMPP, as a component of the SWPPP, that incorporates requirements contained in Appendix G. Appendix G requires a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. The Special Provision V.C.3.b and Appendix G requirements satisfy the TMDL component to address BMP performance.

- c. **Spill Contingency Plan (SCP).** This Order requires the Discharger to update and continue to implement a SCP to control the discharge of pollutants. The SCP shall include a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events at the site. This provision is included in this Order to minimize and control the amount of pollutants discharged in case of a spill. The SCP shall be site specific and shall cover all areas of the Facility.

4. Construction, Operation, and Maintenance Specifications

This provision is based on the requirements of 40 C.F.R. 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**

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 C.F.R. section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E, establishes monitoring and reporting requirements that 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 Monitoring Location EFF-001 at Discharge Point No. 001 will be required as established in the MRP. To demonstrate compliance with established effluent limitations, the Order includes similar monitoring requirements from Order No. R4-2008-0031 with some modifications.

Monitoring at once per discharge event for 4,4'-DDT, total PCBs, fecal coliform, and *Enterococcus* has been included to determine compliance with newly established effluent limitations.

In order to provide relief from monitoring during multiple, frequent storm events, the required monitoring frequency is limited to once per week.

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 Order requires the Discharger to conduct annual monitoring for the remaining CTR priority pollutants and TCDD Equivalents. 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. Visual observations of storm water discharges for the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor have been established to evaluate consistency with applicable receiving water limitations.

C. Whole Effluent Toxicity Testing Requirements

This Order includes limitations for acute and chronic toxicity, and therefore, monitoring requirements are included in the MRP to determine compliance with the effluent limitations established in Limitations and Discharge Requirements.

D. Receiving Water Monitoring

1. Surface Water

This Order includes receiving water limitations and therefore, monitoring requirements are included in the MRP to determine compliance with the receiving water limitations

According to the SIP, the Discharger is required to monitor the receiving water for the CTR priority pollutants, to determine reasonable potential. Accordingly, this Order requires the Discharger to conduct receiving water monitoring of the CTR priority pollutants at Monitoring Location RSW-001. The Discharger must analyze temperature

and pH receiving water at the same time the samples are collected for priority pollutants analysis.

Monitoring for ammonia is required to collect data to determine reasonable potential. In addition, the Discharger must monitor for pH and temperature to adjust the ammonia water quality objective, expressed as un-ionized ammonia, to total ammonia and to determine potential impacts of effluent ammonia to the receiving water concentrations.

2. Visual Monitoring of Receiving Water Sampling Point

The Discharger is required to perform general observations of the receiving water when discharges occur and report the observations in the monitoring report. Attention shall be given to the presence or absence of floating or suspended matter, discoloration, aquatic life, visible film, sheen or coating, and fungi, slime, or objectionable growths.

3. Groundwater—Not Applicable

E. Sediment Monitoring of the Effluent

The Harbor Toxics TMDL requires attainment with the TMDL's interim sediment allocations. This Order implements this requirement in a framework of effluent limits, effluent performance goals, sediment monitoring thresholds and effluent monitoring requirements. These requirements will ensure that discharges from the Facility do not contribute significantly to contaminant sediment concentrations in the Los Angeles/Long Beach Inner Harbor.

Attainment with these thresholds shall be demonstrated via any one of three different means:

1. Demonstrate that the sediment quality condition of Unimpacted or Likely Impacted via the interpretation and integration of multiple lines of evidence as defined in the Sediment Quality Plan is met; or
2. Meet the interim allocations in bed sediment over a three-year averaging period; or
3. Meet the interim allocations in the discharge over a three-year averaging period.

F. Other Monitoring Requirements

1. Storm Water Monitoring

Because the discharge is comprised primarily of storm water runoff that occurs only during heavy rainfall events, the Discharger is required to measure and record the rainfall each day of the month.

Visual observations have been included consistent with those in Order No. R4-2008-0031 to evaluate compliance with applicable receiving water limitations.

2. SWPPP, BMPP, and SCP Status and Effectiveness Report

The Discharger is required by Special Provision V.C.3. of the Order to update and implement a SWPPP, BMPP, and SCP. This Order requires the Discharger to report on the effectiveness of the plans and update as needed to ensure all actual or potential sources of pollutants in wastewater and storm water discharged from the Facility are addressed.

3. Chemical Use Report

This report is necessary so that the Regional Water Board can evaluate the necessity for additional effluent limitations or controls to address the presence of new pollutants not considered during the permit drafting process.

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 Kinder Morgan Liquids Terminal, LLC—Los Angeles Harbor Terminal. 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 notified the Discharger and interested agencies and persons of its intent to prescribe WDR's for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided to all interested parties.

The Regional Water Board's web address is <http://www.waterboards.ca.gov/losangeles> where the public has been provided access to the agenda including any changes in dates and locations.

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 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, the written comments were due at the Regional Water Board office by 5:00 p.m. on **March 13, 2014**.

C. Public Hearing

The **Regional Water Board** held a public hearing on the tentative WDR's during its regular Board meeting on the following date and time and at the following location:

Date: **September 11, 2014**
Time: **9:00 AM**
Location: **Metropolitan Water District, Board Room
700 North Alameda Street
Los Angeles, California**

Interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony pertinent to the discharge, WDR's, and permit. For accuracy of the record, important testimony was requested 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:

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 losangeles@waterboards.ca.gov with a copy to thomas.siebels@waterboards.ca.gov. 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 5 p.m. on March 13, 2014. Comments or evidence received after that time will be submitted, ex agenda, to the Board for consideration, but only included in the 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 oral testimony.

G. Hearing Procedure

The meeting, in which the hearing will be a part, 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 closed 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 person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must *receive* the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

The State Water Board's mailing address is the following:

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 Thomas Siebels at (213) 576-6756.

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**

<p>PLANNING AND ORGANIZATION</p> <p>Form Pollution Prevention Team Review other plans</p>
<p>ASSESSMENT PHASE</p> <p>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</p>
<p>BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE</p> <p>Non-structural BMPs Structural BMPs Select activity and site-specific BMPs</p>
<p>IMPLEMENTATION PHASE</p> <p>Train employees Implement BMPs Conduct recordkeeping and reporting</p>
<p>EVALUATION / MONITORING</p> <p>Conduct annual site evaluation Review monitoring information Evaluate BMPs Review and revise SWPPP</p>

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 C.F.R., 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 [C.F.R.], 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 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 (MICROGRAMS/LITER)

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		
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		

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
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

Table 2d – PESTICIDES – PCBs*	GC
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
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
11	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	117028	1
18	Acrylonitrile	117131	1
19	Benzene	71432	1
20	Bromoform	75252	1
21	Carbon Tetrachloride	56235	1
22	Chlorobenzene	118907	1
23	Chlorodibromomethane	124481	1
24	Chloroethane	75003	1
25	2-Chloroethylvinyl Ether	111758	1
26	Chloroform	67663	1
27	Dichlorobromomethane	75274	1
28	1,1-Dichloroethane	75343	1
29	1,2-Dichloroethane	117062	1
30	1,1-Dichloroethylene	75354	1
31	1,2-Dichloropropane	78875	1
32	1,3-Dichloropropylene	542756	1
33	Ethylbenzene	110414	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	118883	1
40	1,2-Trans-Dichloroethylene	156605	1
41	1,1,1-Trichloroethane	71556	1
42	1,1,2-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	115679	1
48	2-Methyl-4,6-Dinitrophenol	534521	1
49	2,4-Dinitrophenol	51285	1
50	2-Nitrophenol	88755	1
51	4-Nitrophenol	110027	1
52	3-Methyl-4-Chlorophenol	59507	1
53	Pentachlorophenol	87865	1
54	Phenol	118952	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	118601	1
68	Bis(2-Ethylhexyl)Phthalate	117817	1
69	4-Bromophenyl Phenyl Ether	111553	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	116467	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
89	Hexachlorobutadiene	87863	1
90	Hexachlorocyclopentadiene	77474	1

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
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
110	Pyrene	129000	1
111	1,2,4-Trichlorobenzene	120821	1
112	Aldrin	309002	1
113	alpha-BHC	319846	1
114	beta-BHC	319857	1
115	gamma-BHC	58899	1
116	delta-BHC	319868	1
117	Chlordane	57749	1
118	4,4'-DDT	50293	1
119	4,4'-DDE	72559	1
111	4,4'-DDD	72548	1
111	Dieldrin	60571	1
112	alpha-Endosulfan	959988	1
113	beta-Endosulfan	33213659	1
114	Endosulfan Sulfate	1131178	1
115	Endrin	72208	1
116	Endrin Aldehyde	7421934	1
117	Heptachlor	76448	1
118	Heptachlor Epoxide	1124573	1
119	PCB-1116	12674112	1
120	PCB-1221	11114282	1
121	PCB-1232	11141165	1
122	PCB-1242	53469219	1
123	PCB-1248	12672296	1
124	PCB-1254	11197691	1
125	PCB-1260	11196825	1
126	Toxaphene	8001352	1

¹ Pollutants shall be analyzed using the methods described in 40 C.F.R. part 136

ATTACHMENT J – SUMMARY OF REASONABLE POTENTIAL ANALYSIS (RPA)

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)				REASONABLE POTENTIAL ANALYSIS (RPA)													
					Freshwater		Saltwater		Human Health for consumption of:		Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL<C?	If B-C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?	Reason
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only												
1	Antimony	ug/L	0.6	4.9					4300.00	4300.00	No	No	N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
2	Arsenic	ug/L	0.6	2.4					36.00	36.00	No	No	N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
3	Beryllium	ug/L	0.6	No Criteria			69.00	36.00			No Criteria	No Criteria	N				No Criteria	No Criteria	Uc	No Criteria		
4	Cadmium	ug/L	0.6	1					42.25	9.36			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
5a	Chromium (III)		0.6	No Criteria									N				No Criteria	No Criteria	Uc	No Criteria		
5b	Chromium (VI)	ug/L	0.6	No			1107.75	50.35					N				No detected value of B, Step 7	Ud	No effluent data & no B			
6	Copper	ug/L	0.6	19					5.78	3.73			N				No detected value of B, Step 7	Yes	MEC=C			
7	Lead	ug/L	0.6	57					220.82	8.52			N				No detected value of B, Step 7	Yes	MEC=C			
8	Mercury	ug/L	0.6	0.0000002			Reserved	Reserved	0.051	0.051			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
9	Nickel	ug/L	0.6	7.7					74.75	8.28			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
10	Selenium	ug/L	0.6	1					290.58	71.14			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
11	Silver	ug/L	0.6	1					2.24				N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
12	Thallium	ug/L	0.6	1					6.30	6.30			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
13	Zinc	ug/L	0.6	120					95.14	85.62			N				No detected value of B, Step 7	Yes	MEC=C			
14	Cyanide	ug/L	0.6	0.025					1.00	1.00			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
15	Asbestos	Fibers/L	0.6	No Criteria							No Criteria	No Criteria	N				No Criteria	No Criteria	Uc	No Criteria		
16	2,3,7,8 TCDD	ug/L	0.6	0.0000015					0.00000014	0.00000014	Yes	Yes	N				No detected value of B, Step 7	Uc	MEC=C			
	TCDD Equivalents	ug/L	0	2.67E-05					0.00000014	0.00000014	Yes	Yes	N				No detected value of B, Step 7	Yes	MEC=C			
17	Acrolein	ug/L	0.6	0.4					780	780			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
18	Acrylonitrile	ug/L	0.6	0.660					0.66	0.660			N				No detected value of B, Step 7	No	Ud:Effluent ND,MDL<C & No			
19	Benzene	ug/L	0.6	0.28					71	71.0			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
20	Bromoform	ug/L	0.6	0.4					360	360.0			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
21	Carbon Tetrachloride	ug/L	0.6	0.28					4.4	4.40			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
22	Chlorobenzene	ug/L	0.6	0.36					21000	21000			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
23	Chlorobromomethane	ug/L	0.6	0.28					34	34.00			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
24	Chloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	No Criteria	N				No Criteria	No Criteria	Uc	No Criteria		
25	2-Chloroethylvinyl ether	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	No Criteria	N				No Criteria	No Criteria	Uc	No Criteria		
26	Chloroform	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	No Criteria	N				No Criteria	No Criteria	Uc	No Criteria		
27	Dichlorobromomethane	ug/L	0.6	0.3					46	46.00			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
28	1,1-Dichloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	No Criteria	N				No Criteria	No Criteria	Uc	No Criteria		
29	1,2-Dichloroethane	ug/L	0.6	0.28					99	99.00			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
30	1,1-Dichloroethylene	ug/L	0.6	0.42					3.2	3.200			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
31	1,2-Dichloropropane	ug/L	0.6	0.35					39	39.00			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
32	1,3-Dichloropropylene	ug/L	0.6	0.22					1700	1700			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
33	Ethylbenzene	ug/L	0.6	0.25					29000	29000			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
34	Methyl Bromide	ug/L	0.6	0.42					4000	4000			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
35	Methyl Chloride	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	No Criteria	N				No Criteria	No Criteria	Uc	No Criteria		
36	Methylene Chloride	ug/L	0.6	0.4					1600	1600.0			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
37	1,1,2,2-Tetrachloroethane	ug/L	0.6	0.24					11	11.00			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
38	Tetrachloroethylene	ug/L	0.6	0.32					8.85	8.9			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
39	Toluene	ug/L	0.6	0.36					200000	200000			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
40	1,2-Trans-Dichloroethylene	ug/L	0.6	0.27					140000	140000			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
41	1,1,1-Trichloroethane	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	No Criteria	N				No Criteria	No Criteria	Uc	No Criteria		
42	1,1,2-Trichloroethane	ug/L	0.6	0.3					42	42.0			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
43	Trichloroethylene	ug/L	0.6	0.26					81	81.0			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
44	Vinyl Chloride	ug/L	0.6	0.3					525	525			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
45	2-Chlorophenol	ug/L	0.6	2.8					400	400			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
46	2,4-Dichlorophenol	ug/L	0.6	3.3					790	790			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
47	2,4-Dimethylphenol	ug/L	0.6	3.3					2300	2300			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
48	4,6-dinitro-o-resol (aka 2-methyl-4,6-Dinitrophenol)	ug/L	0.6	3.8					765	765.0			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
49	2,4-Dinitrophenol	ug/L	0.6	7.5					14000	14000			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
50	2-Nitrophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	No Criteria	N				No Criteria	No Criteria	Uc	No Criteria		
51	4-Nitrophenol	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	No Criteria	N				No Criteria	No Criteria	Uc	No Criteria		
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L	0.6	No Criteria					No Criteria	No Criteria	No Criteria	No Criteria	N				No Criteria	No Criteria	Uc	No Criteria		
53	Pentachlorophenol	ug/L	0.6	3.3			13.00	7.90		8.2	7.90			N			No detected value of B, Step 7	No	Ud:MEC-C & no B			
54	Phenol	ug/L	0.6	1.9					4600000	4600000			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			
55	2,4,6-Trichlorophenol	ug/L	0.6	4.2					6.5	6.5			N				No detected value of B, Step 7	No	Ud:MEC-C & no B			

CTR#	Parameters	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		Organisms only			Saltwater / Freshwater / Basin Plan									Lowest AMEL	Lowest MDEL		
		AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life				
1	Antimony															No Limit	
2	Arsenic															No Limit	
3	Beryllium															No Limit	
4	Cadmium															No Limit	
5a	Chromium (III)															No Limit	
5b	Chromium (VI)															No Limit	
6	Copper		2.01		0.32	1.86	0.53	1.97	1.86	1.55	2.88	3.11	5.783133	2.88	5.78		Limits established based on Harbor Toxics TMDL WLA
7	Lead		2.01		0.32	70.90	0.53	4.49	4.49	1.55	6.97	3.11	13.99119	6.97	13.99		Limits established based on Harbor Toxics TMDL WLA
8	Mercury															No Limit	
9	Nickel															No Limit	
10	Selenium															No Limit	
11	Silver															No Limit	
12	Thallium															No Limit	
13	Zinc		2.01		0.32	30.55	0.53	45.16	30.55	1.55	47.42	3.11	95.13742	47.42	95.14		Limits established based on Harbor Toxics TMDL WLA
14	Cyanide															No Limit	
15	Asbestos															No Limit	
16	2,3,7,8 TCDD		2.01							1.55		3.11		No Aq/HH criteria	No Aq/HH criteria		
	TCDD Equivalents	0.00000014	2.01	0.00000						1.55		3.11		0.00000014	0.00000028		
17	Acrolein															No Limit	
18	Acrylonitrile															No Limit	
19	Benzene															No Limit	
20	Bromoform															No Limit	
21	Carbon Tetrachloride															No Limit	
22	Chlorobenzene															No Limit	
23	Chlorodibromomethane															No Limit	
24	Chloroethane															No Limit	
25	2-Chloroethylvinyl ether															No Limit	
26	Chloroform															No Limit	
27	Dichlorobromomethane															No Limit	
28	1,1-Dichloroethane															No Limit	
29	1,2-Dichloroethane															No Limit	
30	1,1-Dichloroethylene															No Limit	
31	1,2-Dichloropropane															No Limit	
32	1,3-Dichloropropylene															No Limit	
33	Ethylbenzene															No Limit	
34	Methyl Bromide															No Limit	
35	Methyl Chloride															No Limit	
36	Methylene Chloride															No Limit	
37	1,1,2,2-Tetrachloroethane															No Limit	
38	Tetrachloroethylene															No Limit	
39	Toluene															No Limit	
40	1,2-Trans-Dichloroethylene															No Limit	
41	1,1,1-Trichloroethane															No Limit	
42	1,1,2-Trichloroethane															No Limit	
43	Trichloroethylene															No Limit	
44	Vinyl Chloride															No Limit	
45	2-Chlorophenol															No Limit	
46	2,4-Dichlorophenol															No Limit	
47	2,4-Dimethylphenol															No Limit	
48	4,6-dinitro-o-resol (aka 2-methyl-4,6-Dinitrophenol)															No Limit	
49	2,4-Dinitrophenol															No Limit	
50	2-Nitrophenol															No Limit	
51	4-Nitrophenol															No Limit	
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)															No Limit	
53	Pentachlorophenol															No Limit	
54	Phenol															No Limit	
55	2,4,6-Trichlorophenol															No Limit	

CTR#	Parameters	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation	Comment
		Organisms only			Saltwater / Freshwater / Basin Plan									Lowest AMEL	Lowest MDEL		
		AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life				
56	Acenaphthene															No Limit	
57	Acenaphthylene															No Limit	
58	Anthracene															No Limit	
59	Benzidine															No Limit	
60	Benzo(a)Anthracene															No Limit	
61	Benzo(a)Pyrene															No Limit	
62	Benzo(b)Fluoranthene															No Limit	
63	Benzo(ghi)Perylene															No Limit	
64	Benzo(k)Fluoranthene															No Limit	
65	Bis(2-Chloroethoxy)Methane															No Limit	
66	Bis(2-Chloroethyl)Ether															No Limit	
67	Bis(2-Chloroisopropyl)Ether															No Limit	
68	Bis(2-Ethylhexyl)Phthalate															No Limit	
69	4-Bromophenyl Phenyl Ether															No Limit	
70	Butylbenzyl Phthalate															No Limit	
71	2-Chloronaphthalene															No Limit	
72	4-Chlorophenyl Phenyl Ether															No Limit	
73	Chrysene															No Limit	
74	Dibenzo(a,h)Anthracene															No Limit	
75	1,2-Dichlorobenzene															No Limit	
76	1,3-Dichlorobenzene															No Limit	
77	1,4-Dichlorobenzene															No Limit	
78	3,3-Dichlorobenzidine															No Limit	
79	Diethyl Phthalate															No Limit	
80	Dimethyl Phthalate															No Limit	
81	Di-n-Butyl Phthalate															No Limit	
82	2,4-Dinitrotoluene															No Limit	
83	2,6-Dinitrotoluene															No Limit	
84	Di-n-Octyl Phthalate															No Limit	
85	1,2-Diphenylhydrazine															No Limit	
86	Fluoranthene															No Limit	
87	Fluorene															No Limit	
88	Hexachlorobenzene															No Limit	
89	Hexachlorobutadiene															No Limit	
90	Hexachlorocyclopentadiene															No Limit	
91	Hexachloroethane															No Limit	
92	Indeno(1,2,3-cd)Pyrene															No Limit	
93	Isophorone															No Limit	
94	Naphthalene															No Limit	
95	Nitrobenzene															No Limit	
96	N-Nitrosodimethylamine															No Limit	
97	N-Nitrosodi-n-Propylamine															No Limit	
98	N-Nitrosodiphenylamine															No Limit	
99	Phenanthrene															No Limit	
100	Pyrene															No Limit	
101	1,2,4-Trichlorobenzene															No Limit	
102	Aldrin															No Limit	
103	alpha-BHC															No Limit	
104	beta-BHC															No Limit	
105	gamma-BHC															No Limit	
106	delta-BHC															No Limit	
107	Chlordane															No Limit	
108	4,4'-DDT															No Limit	
109	4,4'-DDE (linked to DDT)															No Limit	
110	4,4'-DDD															No Limit	
111	Dieldrin															No Limit	
112	alpha-Endosulfan															No Limit	
113	beta-Endosulfan															No Limit	
114	Endosulfan Sulfate															No Limit	
115	Endrin															No Limit	
116	Endrin Aldehyde															No Limit	
117	Heptachlor															No Limit	
118	Heptachlor Epoxide															No Limit	
119-125	PCBs sum (2)															No Limit	
126	Toxaphene															No Limit	

Notes:
 Ud = Undetermined due to lack of data
 Uc = Undetermined due to lack of CTR V
 C = Water Quality Criteria
 B = Background receiving water data