CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

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ORDER NO. R4-2015-XXXX
NPDES NO. CA0057746

WASTE DISCHARGE REQUIREMENTS FOR THE METROPOLITAN STEVEDORE COMPANY, BULK MARINE TERMINAL DISCHARGE TO LONG BEACH INNER HARBOR VIA DISCHARGE POINT 001

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

Table 1. Discharger Information

Discharger	**Metropolitan Stevedore Company**
Name of Facility	**Metropolitan Stevedore Company, Bulk Marine Terminal**
Facility Address	**1045 Pier G Avenue, Berth 212**
	Long Beach, CA 90802
	Los Angeles County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	**Treated Storm Water and Wastewater**	**33.7445º**	**-118.2041º**	**Long Beach Inner Harbor**

Table 3. Administrative Information

This Order was adopted on:	**March 12, 2015**
This Order shall become effective on:	**May 1, 2015**
This Order shall expire on:	**April 30, 2020**
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs 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:	**180 days prior to the Order expiration date**
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 March 12, 2015.

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Samuel Unger, P.E., Executive Officer

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ATTACHMENTS

I. FACILITY INFORMATION

Information describing the Metropolitan Stevedore Company, Bulk Marine 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 (Regional Water Board), finds:

A. Legal Authorities. This Order serves as WDRs 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 WDRs 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. R4-2009-0097 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 outfall 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 0.9 million gallons per day (MGD) of treated storm water and wastewater as described in the Fact Sheet, Attachment F. The discharge of wastes from accidental spills or other sources is prohibited.

B. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to a storm drain system, Long Beach 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 Resources Control 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 001

1. Final Effluent Limitations – Discharge Point 001

a. 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			
		Maximum Daily	Average Monthly	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Biochemical Oxygen Demand (BOD) 5-day @ 20 ºC	mg/L	30	20	--	--
	lbs/day[3]	230	150	--	--
Oil and Grease	mg/L	15	10	--	--
	lbs/day[3]	110	75	--	--
pH	s.u.	--	--	6.5	8.5
Total Suspended Solids (TSS)	mg/L	75	50	--	--
	lbs/day[3]	560	380	--	--
Non-conventional Pollutants					
Settleable Solids	mL/L	0.3	--	--	--
Temperature	ºF	--	--	--	86
Total Petroleum Hydrocarbon (TPH)[4]	µg/L	100	--	--	--
	lbs/day[3]	0.75	--	--	--
Turbidity	NTU	75	50	--	--

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Parameter	Units	Effluent Limitations			
		Maximum Daily	Average Monthly	Instantaneous Minimum	Instantaneous Maximum
Chronic Toxicity	Pass or Fail and % Effect for TST approach	Pass or % Effect <50[1]	Pass[1,2]	--	--
Priority Pollutants					
Copper, Total Recoverable[6,7]	µg/L	6.1	3.1	--	--
	lbs/day[3]	0.046	0.023	--	--
Lead, Total Recoverable[6,7]	µg/L	14	7	--	--
	lbs/day[3]	0.11	0.053	--	--
Nickel, Total Recoverable	µg/L	14	6.8	--	--
	lbs/day[3]	0.11	0.051	--	--
Zinc, Total Recoverable[6,7]	µg/L	140	70	--	--
	lbs/day[3]	1.1	0.53	--	--
TCDD Equivalents[11]	µg/L	2.8×10^{-8}	1.4×10^{-8}	--	--
	lbs/day[3]	2.1×10^{-10}	1.1×10^{-10}	--	--
4,4'-DDT[6, 7, 8]	µg/L	0.0012	0.00059	--	--
	lbs/day[3]	9.0×10^{-6}	4.4×10^{-6}	--	--
PCBs, Total[6, 7,8,9]	µg/L	0.00034	0.00017	--	--
	lbs/day[3]	2.6×10^{-6}	1.3×10^{-6}	--	--
PAHs					
Benzo(a)anthracene[8,10]	µg/L	0.098	0.049	--	--
	lbs/day[3]	0.00074	0.00037	--	--
Benzo(a)pyrene[5,7,8,10]	µg/L	0.098	0.049	--	--
	lbs/day[3]	0.00074	0.00037	--	--
Benzo(b)fluoranthene[8,10]	µg/L	0.098	0.049	--	--
	lbs/day[3]	0.00074	0.00037	--	--
Chrysene[5,7,8]	µg/L	0.098	0.049	--	--
	lbs/day[3]	0.00074	0.00037	--	--

1. Report "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL). Report "Pass" or "Fail" for Median Monthly Effluent limitation (MMEL). During a calendar month, exactly three independent toxicity tests are required for routine monitoring when one toxicity test results in "Fail". This limit applies for wet weather discharges only.
2. This is a Median Monthly Effluent Limitation.
3. The mass limitations are based on a maximum flow of 0.9 MGD and is calculated as follows:

Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

4. TPH equals the sum of TPH gasoline (C_4-C_{12}) and TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).
5. CTR human health criteria were not established for total PAHs. State's 2010 CWA section 303(d) List classifies the Los Angeles/Long Beach Inner Harbor as impaired for benzo(a)pyrene and chrysene.
6. The effluent limitations are based on the Harbor Toxics TMDL WLAs and calculated using the CTR-SIP procedures.
7. 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 exceedance. An effluent sediment monitoring result at or below the sediment allocations in Table 6 of this Order, demonstrates attainment with the applicable sediment allocation and additional sediment monitoring of the effluent is not required. A sediment monitoring result that exceeds the 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. If no discharges occur within three years of the initial trigger, the Discharger should conduct effluent sediment monitoring in the subsequent discharge that follows the triggering event.
8. Samples analyzed must be unfiltered samples.
9. 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.
10. This Order includes new effluent limits for benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene based on CTR and SIP. Historical data from recent monitoring reports indicate detected concentrations of these contaminants in the discharge that would have exceeded or come close to exceeding the final effluent limits. The Regional Water Board may provide interim effluent limitations for these contaminants in a separate Time Schedule Order (TSO), using current representative data.
11. TCDD equivalents shall be calculated using the following formula, where the minimum levels (MLs) 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 MLs to zero. U.S.EPA method 1613 may be used to analyze dioxin and furan congeners.

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

where: C_x = concentration of dioxin or furan congener x

TEF_x= TEF for congener x

Congeners	Minimum Levels (pg/L)	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1

Congeners	Minimum Levels (pg/L)	Toxicity Equivalence Factor (TEF)
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

2. Interim Effluent Limitations – Discharge Point 001

a. Interim Effluent Limitations

During the period beginning on the effective date of this Order and ending on April 30, 2020, the discharge of treated wastewater and storm water shall demonstrate compliance with the following interim effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP (Attachment E). These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated in this provision.

Table 5. Interim Effluent Limitations

Parameter	Units	Interim Effluent Limitations	
		Maximum Daily	Average Monthly
Copper, Total Recoverable[4]	µg/L	14	14
	lbs/day[1]	0.105	0.105
4,4'-DDT[2,4]	µg/L	0.05	0.05
	lbs/day[1]	0.000375	0.000375
PCBs, Total[2,3,4]	µg/L	0.2	0.2
	lbs/day[1]	0.0015	0.0015

1. The mass limitations are based on a maximum flow of 0.9 MGD and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
2. Samples analyzed must be unfiltered samples.
3. 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.
4. The interim effluent limitations listed in this table do not represent thresholds in the determination of the need to conduct sediment monitoring. Rather, if the effluent monitoring results during each reporting period exceed both a TSS effluent limit and a CTR TMDL-based final effluent limit for copper, lead, zinc, 4,4'-DDT, or total PCBs, as listed in Table 4 of this Order, implementation of the effluent sediment monitoring program is required for that priority pollutant.

B. Land Discharge Specifications – Not Applicable

C. Recycling Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

The discharge shall not cause the following in Long Beach 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 0.2 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 be raised above 80°F as a result of waste discharged.

3. Water Contact Standards

In marine water designated for water contact recreation (REC-1), the waste discharged shall not cause the following bacterial standards to be exceeded in the receiving water.

b. 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.

c. Single Sample Maximum (SSM)

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

5. Exceed total ammonia (as N) concentrations specified in the Regional Water Board Resolution No. 2004-022. Resolution No. 2004-022 revised the ammonia water quality objectives for inland surface waters not characteristic of freshwater in the 1994 Basin Plan, to be consistent with U.S.EPA's *"Ambient Water Quality Criteria for Ammonia (Saltwater) - 1989*." Adopted on March 4, 2004, Resolution No. 2004-022 was approved by State Water Board, Office of Administrative Law (OAL) and U.S.EPA on July 22, 2004, September 14, 2004, and May 19, 2005, respectively and is now in effect.

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

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

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

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

10. Accumulation of bottom deposits or aquatic growths.

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

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

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

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

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

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

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

18. Nuisance or adverse effects to beneficial uses of the receiving water.

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

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

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

2. The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

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 storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Water Board to local agencies.

c. A discharge of waste to any points other than specifically described in this Order is prohibited and constitutes a violation thereof.

d. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations

established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 318, 405, and 423 of the federal CWA and amendments thereto.

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

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

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

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

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

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

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

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

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

k. 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.

l. 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.

m. 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.

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

o. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States, is prohibited unless specifically authorized elsewhere in this permit or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.

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

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

i. Name and general composition of the chemical,

ii. Frequency of use,

iii. Quantities to be used,

iv. Proposed discharge concentrations, and

v. U.S.EPA registration number, if applicable.

r. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

s. In the event the Discharger does not comply or will be unable to comply for any reason with any prohibition, effluent limitations, or receiving water limitations 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.

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

B. Monitoring and Reporting Program (MRP) Requirements

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

C. Special Provisions

1. Reopener Provisions

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

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

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

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

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan

Discharger shall submit to the Regional Water Board an Initial Investigation TRE workplan (1-2 pages) **within 90 days** of the effective date of this permit. This plan shall describe the steps the permittee intends to follow in the event that toxicity is detected. See section V of the Monitoring and Reporting Program (Attachment E) for an overview of Toxicity Reduction Evaluation (TRE) requirements.

b. 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 (Long Beach Inner Harbor) for copper, lead, zinc, DDT, PAHs, and PCBs. Attainment with these thresholds shall be demonstrated in accordance with Footnote 7 to Table 4 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 existing at the time of permit issuance, reissuance, or modification.

Table 6. Interim Sediment Monitoring Thresholds

Pollutant	Monitoring Thresholds based on Sediment Interim Concentration-based Allocations (mg/kg sediment)
Copper, Total Recoverable	142.3
Lead, Total Recoverable	50.4
Zinc, Total Recoverable	240.6
PAHs[1]	4.58
DDT	0.070
PCBs	0.060

[1] According to the Sediment Quality Plan, total PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthene, anthracene, biphenyl, naphthalene, 2,6-dimethylnaphthalene, fuorene, 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.

c. 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 TMDL requires that the Monitoring Plan and QAPP shall be submitted 20 months after the effective date (March 23, 2012) of the TMDL for public review and subsequent Executive Officer approval. Since the effective date of this Order exceeds the deadline for the Monitoring Plan and QAPP, the Discharger shall join a group already formed or develop a site specific monitoring plan. If the Discharger decides to join a group already formed, the Discharge shall notify the Regional Water Board within 90 days of the effective date of the Order. If the Discharger decides to develop a site specific Monitoring Plan with a QAPP, the Discharger shall notify the Regional Water Board within 90 days of the effective date of the Order and submit them to the Regional Water Board within 12 months of the effective date of the Order for public comment and the Regional Water Board approval. The Discharger shall begin monitoring 6 months after the Monitoring Plan and QAPP are approved by the Executive Officer, unless otherwise directed by the Executive Officer. The compliance monitoring program shall include water column, sediment, and fish tissue monitoring. The Discharger shall submit the annual monitoring report to the Regional Water Board by the specified date in the proposed Monitoring Plan. The annual monitoring report shall indicate compliance and non-compliance with waste load and/or load allocations.

The Compliance Monitoring Program shall include:

i. **Water Column Monitoring.** At the Station ID in Table 7, parameters in the water column shall be monitored three times per year, during two wet weather events and one dry weather event. During wet weather events, water column samples shall be collected at several depths. Wet weather monitoring must include the first large storm event of the wet season. Sampling shall be designed to collect sufficient volumes of TSS for analyses of bulk sediment priority pollutants in Table 7 below.

ii. **Sediment Monitoring.** Sediment quality objective evaluation monitoring, as detailed in SQO Part 1 (sediment triad sampling), shall be performed once per five years in coordination with the Biological Baseline and Bight regional monitoring program, if possible. It shall include the full chemical suite, two sediment toxicity tests, and four benthic indices as specified in SQO Part 1. At the Station ID in Table 7, and between sediment triad monitoring events, sediment chemistry parameters shall be monitored once per five years.

Table 7. Sediment Chemistry Monitoring Requirements[1]

Water Body Name	Station ID	Station Location	Sample Media and Parameters	
			Water Column	Sediment
Long Beach Inner Harbor	12	Cerritos Channel between the Heim Bridge and Turning Basin	Flow, Temperature, DO, pH, Salinity, TSS, Metals[2], PCBs, DDT	Metals[2], Toxicity, Benthic Community Effect
	13	Back Channel between Turning Basin and West Basin		
	14	Center of West Basin		
	15	Center of Southeast Basin		

[1] Based on Harbor Toxics TMDL (Attachment A to Resolution No. R11-008, page 26)
[2] Metals: copper, lead, and zinc.

iii. **Fish Tissue Monitoring:**

Fish tissue shall be collected once every two years in Long Beach Inner 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.

iv. **Sampling and Analysis Plan:**

The Sampling and Analysis Plan must be proposed based on methods or metrics described in the *State Water Board Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality* (Resolution 2008-0070 – SQO Part 1), and the *U.S.EPA or American Society for Testing and Materials (ASTM)*. The plan shall include a list of chemical analytes for the water column and sediment.

v. **Quality Assurance Project Plan:**

The Quality Assurance Project Plan (QAPP) shall describe the project objectives and organization, functional activities, and quality assurance/quality control protocols for the water and sediment monitoring. The QAPP shall include protocols for sample collection, standard analytical procedures, and

laboratory certification. All samples shall be collected in accordance with Surface Water Ambient Monitoring Program (SWAMP) protocols.

The details of the Harbor Toxics TMDL Water and Sediment Monitoring Plan including sampling locations and all methods shall be specified in the Monitoring Plans submitted to the Executive Officer.

3. Best Management Practices and Pollution Prevention

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

a. An updated **Storm Water Pollution Prevention Plan (SWPPP)** that describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State. The SWPPP shall address procedures for preventing fire test water from commingling with storm water discharges. The SWPPP shall be developed in accordance with the requirements in Attachment G.

b. An updated **Best Management Practice Plan (BMPP)** that will be implemented to reduce the discharge of pollutants to the receiving water. 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 ensure 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 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 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. The SCP may be substituted with an updated version the Discharger's existing Spill Prevention Control and Countermeasure (SPCC) Plan.

Each plan 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 point; describe the activities in each area and the potential for contamination of storm water runoff and the discharge of hazardous waste/material; and address the feasibility of containment and/or treatment of storm water. The plans shall be reviewed annually and at the same time. Updated information shall be submitted within 30 days of revision.

The Discharger shall implement the SWPPP, BMPP, and SCP (or SPCC) 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 plans shall be reviewed annually and at the same time. Updated information shall be submitted to the Regional Water Board within 30 days of revisions.

4. Construction, Operation and Maintenance Specifications

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

5. Other Special Provisions – Not Applicable

6. Compliance Schedules

a. The interim effluent limitations provided in section IV.A.2 of this Order for copper, 4,4'-DDT, and total PCBs shall be in effect until April 30, 2020. Thereafter, the Discharger shall comply with the final effluent limitations for copper, 4,4'-DDT, and total PCBs as specified in section IV.A.1 of this Order.

b. The Discharger shall comply with the tasks and schedule in Table 8 below to achieve the final effluent limits for copper, 4,4'-DDT, and total PCBs specified in this Order. The compliance schedule is based on the Discharger's estimated time schedule for completion as proposed in its request dated November 7, 2014, with appropriate modifications from the Regional Board. The compliance schedule is as follows:

Table 8. Compliance Schedule

Task No.	Description	Start Date	Completion Date	Report Date
1	Baseline Assessment of Discharge Concentrations • Review sampling and analytical procedures • Identify potential sources of constituents • Review current BMPs and process operations related to infrequent discharge	May 1, 2015	April 30, 2016	May 14, 2016
2a	Implementation of New and Modified BMPs and Process Operations • Initiate BMP and process controls/management	May 1, 2016	April 30, 2017	May 14, 2017
2b	Implementation of New and Modified BMPs and Process Operations • Evaluate effectiveness of effluent concentration reduction/control	May 1, 2017	April 30, 2018	May 14, 2018
3	Assess Feasibility of Engineering Controls/Treatment • Review control alternatives for site applicability • Assess technical and economic feasibility • Perform treatment testing or testing of promising alternatives (as necessary) • Select preferred alternative	November 1, 2016	April 30, 2019	May 14, 2019

Task No.	Description	Start Date	Completion Date	Report Date
4	Implementation of Engineering Controls/Treatment • Procure, construct, and start-up controls (as necessary) • Achieve compliance with final effluent limitations for copper, 4,4'-DDT, and total PCBs	May 1, 2017	April 30, 2020	May 14, 2020

c. The Discharger shall notify the Regional Water Board, in writing, no later than 14 days following each completion date above of its compliance or noncompliance with the requirement.

d. The Discharger will also be responsible to implement the elements applicable to the Discharger as included in the Implementation Schedule of the Harbor Toxics TMDL, for the duration of this Order. The Implementation Schedule of the Harbor Toxics TMDL can be found at the Regional Board website at

http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/tmdl_list.shtml

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 $= [X_{n/2} + X_{(n/2)+1}]/2$, 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. Average Monthly Effluent Limitation (AMEL).

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

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

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

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

When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement I.G. of the MRP), the numerical average of the analytical results of these five samples will be used for compliance determination.

When one or more sample results are reported as "Not-Detected (ND)" or "Detected, but Not Quantified (DNQ)" (see Reporting Requirement I.G. of the MRP), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

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

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

F. 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.

G. 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).

H. 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).

I. Median Monthly Effluent Limitation (MMEL)

If the median of daily discharges over a calendar month exceeds the MMEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of noncompliance in a 31-day month). However, an alleged violation of the MMEL will be considered one violation for the purpose of assessing State mandatory minimum penalties. If no sample (daily discharge) is taken over a calendar month, no compliance determination can be made for that month with respect to effluent violation determination, but compliance determination can be made for that month with respect to reporting violation determination.

J. Chronic Toxicity

This 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 (Ho) for the TST approach is: Mean discharge IWC response ≤0.75 × 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: ((Mean control response - Mean discharge IWC response) ÷ Mean control response) × 100.

The Maximum Daily Effluent Limitation (MDEL) for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed using the TST approach, results in “Fail” and the “Percent (%) Effect” is ≥50.

The Median Monthly Effluent Limitation (MMEL) for chronic toxicity is exceeded and a violation will be flagged when the median of no more than three independent chronic toxicity tests conducted within the same calendar month—analyzed using the TST approach—results in

"Fail". During a calendar month, exactly three independent toxicity tests are required when one toxicity test results in "Fail".

K. Mass and Concentration Limitations

Compliance with mass effluent limitations and concentration effluent limitations for the same parameter shall be determined separately. When the concentration for a parameter in a sample is reported as ND or DNQ, the corresponding mass emission rate determined using that sample concentration shall also be reported as ND or DNQ.

L. Bacterial Standards and Analyses

The geometric mean used for determining compliance with bacterial standards is calculated using the following equation:

$$\text{Geometric Mean} = (C_1 \times C_2 \times \ldots \times C_n)^{1/n}$$

where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL or CFU/100 mL) found on each day of sampling.

For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 mL for total and fecal coliform, at a minimum, and 1 to 1000 per 100 mL for *Enterococcus*). The detection method used for each analysis shall be reported with the results of the analysis.

Detection methods used for coliforms (total and fecal) and *Enterococcus* shall be those presented in Table 1A of 40 C.F.R. section 136 (revised May 18, 2012), unless alternate methods have been approved by U.S.EPA pursuant to 40 C.F.R. section 136, or improved methods have been determined by the Executive Officer and/or U.S.EPA.

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.

Dry Weather Event
Dry weather event is a storm event of less than 0.1 inch of precipitation.

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 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.

Significant Storm Water Discharge
A significant storm water discharge is a continuous discharge of storm water for a minimum of one hour, or the intermittent discharge of storm water for a minimum of 3 hours in a 12-hour period.

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.)

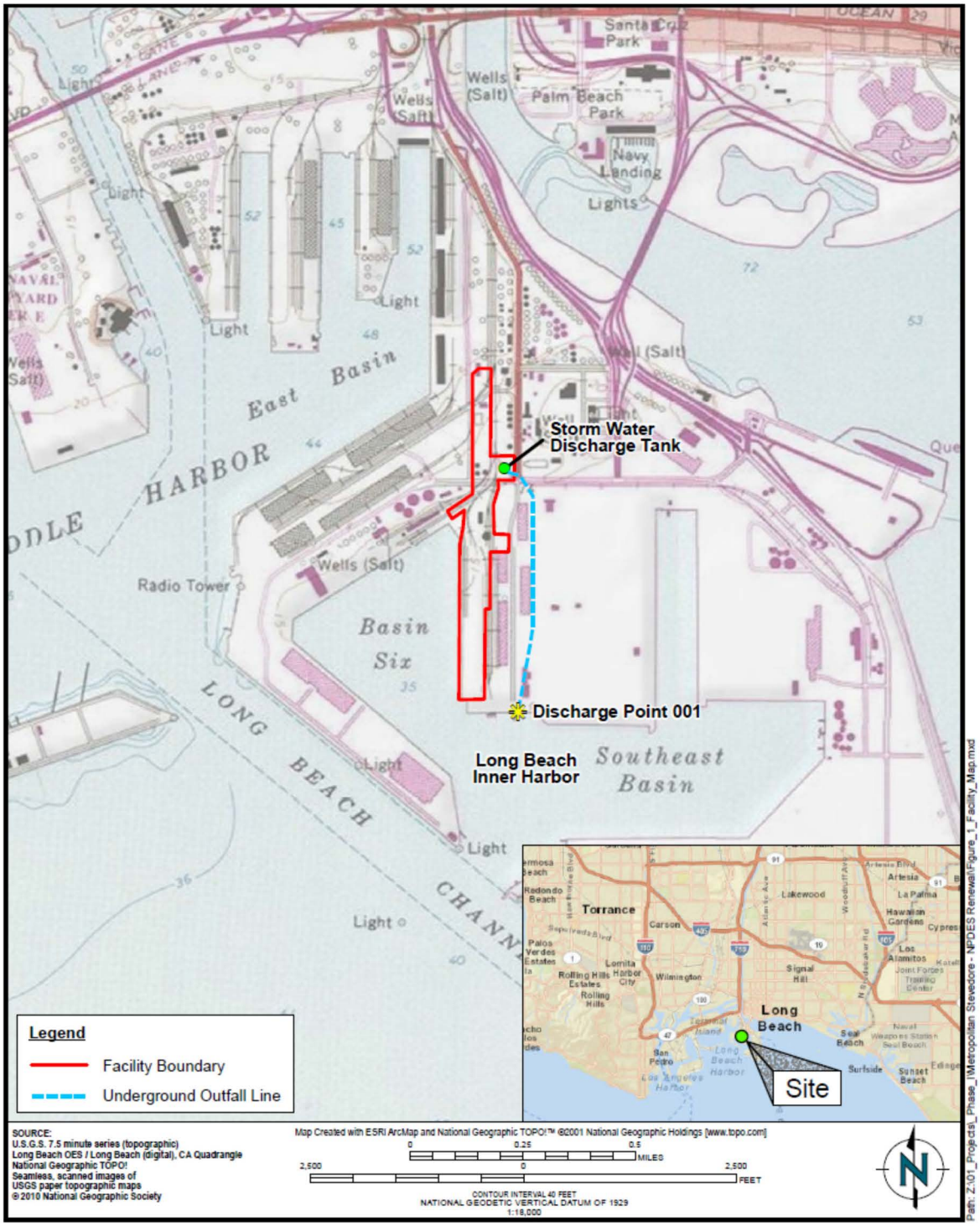
Wet Weather Event
Wet weather occurs during a storm event of greater than or equal to 0.1 inch of precipitation.

ACRONYMS AND ABBREVIATIONS

AMEL	Average Monthly Effluent Limitation
B	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BMPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-day @ 20 ℃
BPT	Best Practicable Treatment Control Technology
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
C.F.R.	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
Discharger	Metropolitan Stevedore Company
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	State Water Resources Control Board, Drinking Water Division, Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Facility	Metropolitan Stevedore Company, Bulk Marine Terminal
g/kg	grams per kilogram
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
ng/L	nanograms per liter
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

PAHs ..... Polynuclear Aromatic Hydrocarbons
pg/L ..... picograms per liter
PMEL ..... Proposed Maximum Daily Effluent Limitation
PMP ..... Pollutant Minimization Plan
POTW ..... Publicly Owned Treatment Works
ppm ..... parts per million
ppb ..... parts per billion
QA ..... Quality Assurance
QA/QC ..... Quality Assurance/Quality Control
Ocean Plan ..... Water Quality Control Plan for Ocean Waters of California
Regional Water Board ..... California Regional Water Quality Control Board, Los Angeles Region
RPA ..... Reasonable Potential Analysis
SCP ..... Spill Contingency Plan
Sediment Quality Plan ..... *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality*
SIP ..... State Implementation Policy (Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California)
SMR ..... Self-Monitoring Reports
SOP ..... Standard Operating Procedures
State Water Board ..... California State Water Resources Control Board
SWPPP ..... Storm Water Pollution Prevention Plan
TAC ..... Test Acceptability Criteria
Thermal Plan ..... Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California
TIE ..... Toxicity Identification Evaluation
TMDL ..... Total Maximum Daily Load
TOC ..... Total Organic Carbon
TRE ..... Toxicity Reduction Evaluation
TSD ..... Technical Support Document
TSS ..... Total Suspended Solid
TU_c ..... Chronic Toxicity Unit
U.S.EPA ..... 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

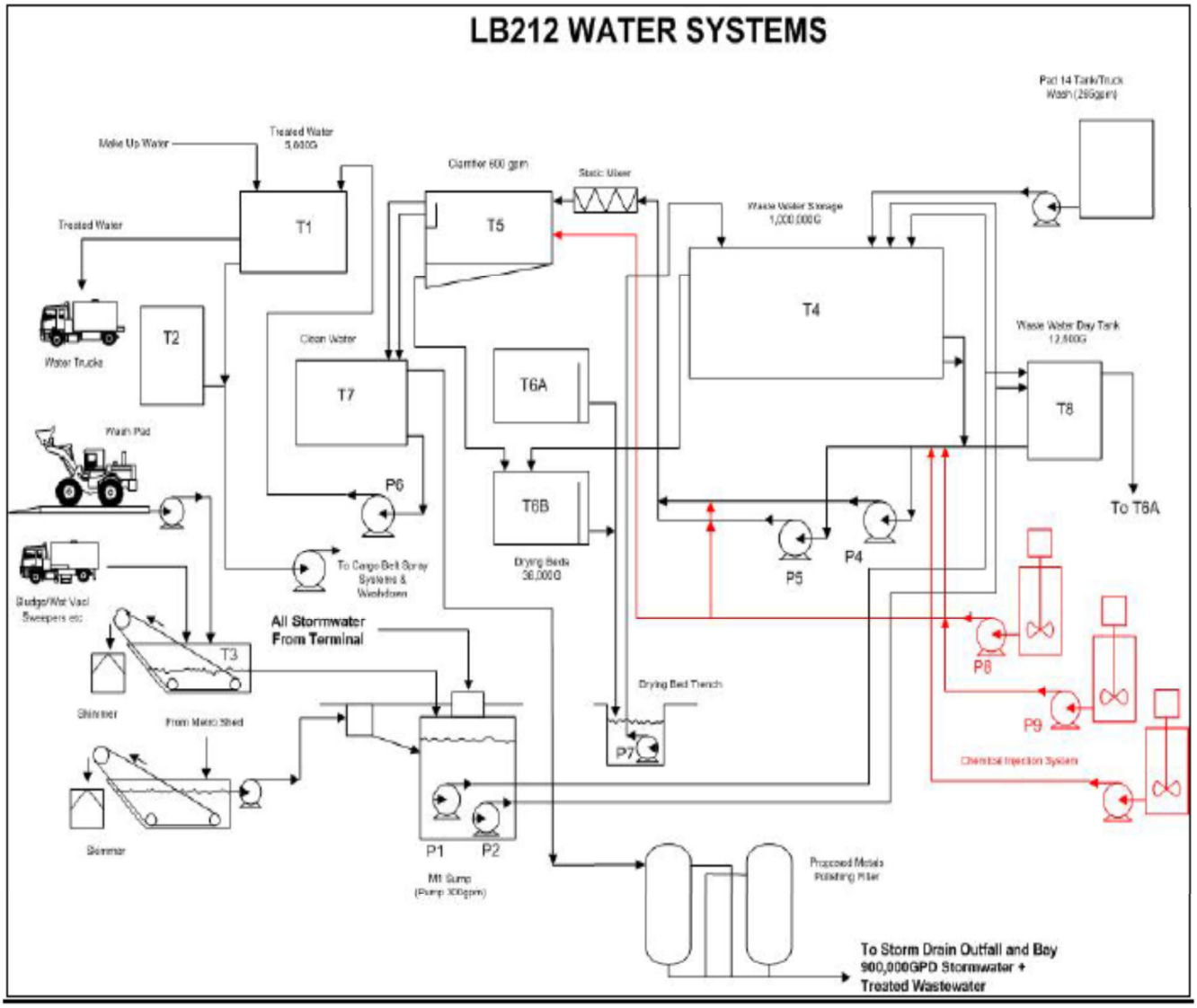


ENVIRON

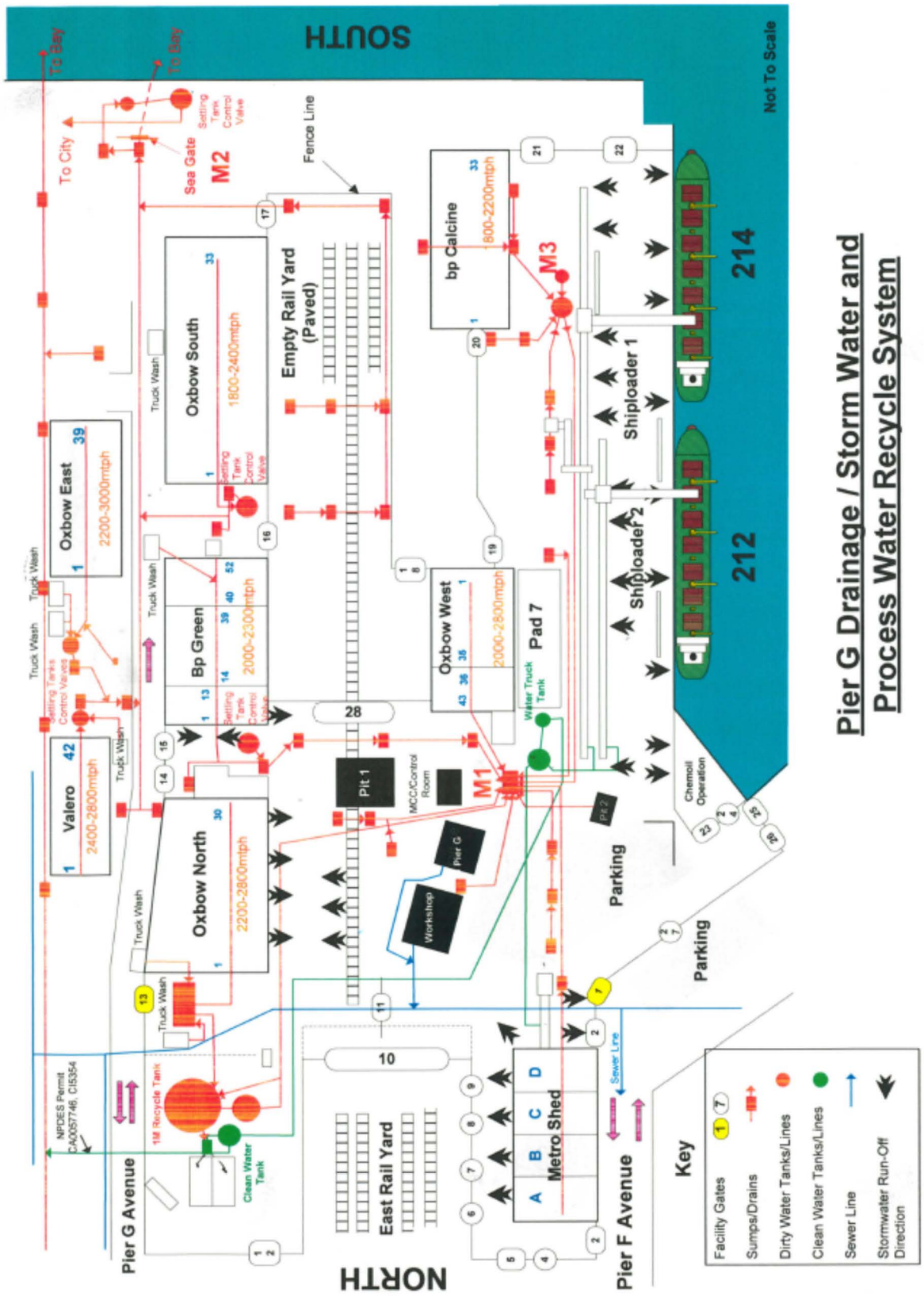
Facility Map	Figure 1
Metropolitan Stevedore Company 1045 Pier G Avenue, Long Beach, California NPDES Permit No. CA0057746	
DRAFTED BY: SShin / Date: 2/7/2014	PROJECT: 05-BPJWH14

TENTATIVE

ATTACHMENT C-1 - FLOW SCHEMATIC OF WASTEWATER



ATTACHMENT C-2 – PIER G DRAINAGE MAP



Pier G Drainage / Storm Water and Process Water Recycle System

TENTATIVE

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the terms, requirements, and 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; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

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 (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 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 (33 U.S.C. § 1318(a)(4)(B)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); 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. (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

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 approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. subchapters N or O. In the case of pollutants for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants. (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, 13383.)

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:

"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 Los Angeles 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 13268, 13385, 13386, and 13387.

B. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions [*section 122.41(a)(2)*] [*Water Code sections 13385 and 13387*].

C. Any person may be assessed an administrative penalty by the Los Angeles 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. *section 122.41(a)(3)*].

D. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both [40 C.F.R. *section 122.41(j)(5)*].

E. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both [40 C.F.R. *section 122.41(k)(2)*].

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Water Board as soon as they know or have reason to believe (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 (µg/L) (40 C.F.R. § 122.42(a)(1)(i));

b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (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 (µg/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 (MRP NO. 5354)

CONTENTS

TABLES

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) (MRP No. 5354)

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 C.F.R.) require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

I. GENERAL MONITORING PROVISIONS

A. An effluent sampling station shall be established for the point of discharge (Discharge Point 001 [Latitude 33.7445°, Longitude -118.2041°]) and shall be located where representative samples of waste streams contributing to that effluent can be obtained.

B. Laboratory Certification. Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board, Drinking Water Division, Environmental Laboratory Accreditation Program (ELAP) in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with 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.

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

D. The Los Angeles 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.

E. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. 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.

F. For any analyses performed for which no procedure is specified in the U.S.EPA guidelines or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.

G. 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 U.S.EPA guideline procedures or as specified in this MRP."

H. 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.

I. Where possible, the MLs employed for effluent analyses to determine compliance with effluent limitations shall be lower than the effluent limitations established in this Order for a given parameter. If the ML value is not below the effluent limitations, 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.

J. Where possible, the MLs employed for effluent analyses not associated with determining compliance with effluent limitations in this Order shall be lower than the lowest applicable water quality objective, for a given parameter. Water quality objectives for parameters may be found in Chapter 3 of the Basin Plan and the CTR (40 C.F.R. § 131.38). If the ML value is not below the water quality objective, 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, the associated laboratory QA/QC procedures, reporting levels (RLs), and method detection limits (MDLs).

The Los Angeles 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 Los Angeles Regional Water Board agree to include in the permit a test method that is more sensitive than that specified in 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 U.S.EPA-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 Los Angeles 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.

K. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 C.F.R. 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 Los Angeles 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.

L. For analyses with short sample holding time such as pH and total residual chlorine, the analyses may be conducted by a field technician or chemist from an ELAP certified laboratory provided that the personnel receives proper training and follows laboratory SOPs for field sampling and analysis. Documentation for calibration of instruments and records of analysis shall be clearly noted and included in the monitoring report.

M. 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 statement under penalty of perjury executed by the person responsible for the laboratory.

N. 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.

O. 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 are 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.

P. When requested by the Los Angeles Regional Water Board or U.S.EPA, 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%.

Q. For parameters that both average monthly and daily maximum limits are specified and the monitoring frequency is less than four times a month, the following shall apply. If an analytical result is greater than the average monthly limit, the Discharger shall collect four additional samples at approximately equal intervals during the month, until compliance with the average monthly limit has been demonstrated. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later. In the event of noncompliance with an average monthly effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the average monthly effluent limitation has been demonstrated. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the average monthly limit.

R. 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.

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

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	A sampling location shall be established where a representative sample of effluent prior to Discharge Point 001 can be obtained. (Latitude 33.7526°, Longitude -118.2048°)
---	RSW-001	A location outside the influence of the effluent discharge location, and at least 50 feet from Discharge Point 001 in the opposite direction of tidal flow in the Long Beach Inner Harbor.

The North latitude and West longitude information in Table E-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 treated storm water and wastewater discharge at EFF-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
Flow	GPD	Meter	1/Day[1]	--
Conventional and Non-conventional Pollutants				
Ammonia, Total (as N)	mg/L	Grab	1/Discharge Event[3]	[4]
Biochemical Oxygen Demand (BOD) 5-day @20°C[2]	mg/L	Grab	1/Discharge Event[3]	[4]
Chronic Toxicity	Pass or Fail and % Effect for TST approach	Grab	1/Year[5]	[6]
Dissolved Oxygen	mg/L	Grab	1/Discharge Event[3]	[4]
Electrical Conductivity	µmho/cm	Grab	1/Discharge Event[3]	[4]
Total Coliform	CFU/100ml or MPN/100ml	Grab	1/Year[5]	[4, 12]
Fecal coliform	CFU/100ml or MPN/100ml	Grab	1/Year[5]	[4, 12]
Enterococcus	CFU/100ml or MPN/100ml	Grab	1/Year[5]	[4, 12]
Methyl tertiary butyl ether (MTBE)	µg/L	Grab	1/Discharge Event[3]	[4]
Oil and Grease[2]	mg/L	Grab	1/Discharge Event[3]	[4]
pH	s.u.	Grab	1/Discharge Event[3]	[4]
Phenols[2]	mg/L	Grab	1/Discharge Event[3]	[4]
Settleable Solids	mL/L	Grab	1/Discharge Event[3]	[4]
Sulfides[2]	mg/L	Grab	1/Discharge Event[3]	[4]
Temperature	°F	Grab	1/Discharge Event[3]	[4]

TENTATIVE

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Tertiary Butyl Alcohol (TBA)	µg/L	Grab	1/Discharge Event[3]	[4]
Total Organic Carbon	mg/L	Grab	1/Discharge Event[3]	[4]
Total Petroleum Hydrocarbons (TPH) as Diesel (C_{13}-C_{22})	µg/L	Grab	1/Discharge Event[3]	EPA Method 503.1, 8015B, or 8270
Total Petroleum Hydrocarbons (TPH) as Gasoline (C_4-C_{12})	µg/L	Grab	1/Discharge Event[3]	EPA Method 503.1 or 8015B
TPH as Waste Oil (C_{23+})	µg/L	Grab	1/Discharge Event[3]	EPA Method 503.1, 8015B, or 8270
Total Suspended Solids (TSS)[2]	mg/L	Grab	1/Discharge Event[3]	[4]
Turbidity	NTU	Grab	1/Discharge Event[3]	[4]
Priority Pollutants				
Copper, Total Recoverable[2,7]	µg/L	Grab	1/Discharge Event[3]	[4]
Lead, Total Recoverable[2,7]	µg/L	Grab	1/Discharge Event[3]	[4]
Nickel, Total Recoverable[2]	µg/L	Grab	1/Discharge Event[3]	[4]
Zinc, Total Recoverable[2,7]	µg/L	Grab	1/Discharge Event[3]	[4]
4,4'-DDT[2,7]	µg/L	Grab	1/Discharge Event[3]	[4, 8]
Polychlorinated Biphenyls (PCBs), Total[2,7,9]	µg/L	Grab	1/Discharge Event[3]	[4, 8]
TCDD Equivalents[10]	µg/L	Grab	1/Discharge Event[3]	[4]
Remaining Priority Pollutants[11]	µg/L	Grab	1/Year[5]	[4]
PAHs				
Benzo(a)anthracene	µg/L	Grab	1/Discharge Event[3]	[4, 8]
Benzo(a)pyrene[7]	µg/L	Grab	1/Discharge Event[3]	[4, 8]
Benzo(b)fluoranthene	µg/L	Grab	1/Discharge Event[3]	[4, 8]
Chrysene[7]	µg/L	Grab	1/Discharge Event[3]	[4, 8]
Fluoranthene	µg/L	Grab	1/Discharge Event[3]	[4, 8]
Phenanthrene	µg/L	Grab	1/Discharge Event[3]	[4, 8]
Pyrene	µg/L	Grab	1/Discharge Event[3]	[4, 8]

TENTATIVE

[1] Flow shall be recorded daily during each period of discharge.

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

$M = 8.34 \times Ce \times Q$

where: M = mass discharge for a pollutant, lbs/day
Ce = Reported concentration for a pollutant
Q = actual discharge flow rate.

[3] During periods of extended rainfall, no more than one sample per week (or 7-day period) is required to be collected. Sampling shall be conducted 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.

[4] 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 MLs specified in Attachment 4 of the SIP (Attachment H of this Order), 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.

[5] Monitoring is only required during years in which discharge occurs. Annual samples shall be collected during the first discharge of the year. If there is no discharge to surface waters, the Discharger will indicate in the corresponding monitoring report, under penalty of perjury, that no effluent was discharged to surface water during the reporting period.

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

[7] 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, page 11, Item 3, 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 exceedance.

[8] Samples analyzed must be unfiltered samples.

[9] Total PCBs (polychlorinated biphenyls) means the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-10166, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1245, Aroclor-1254, and Aroclor-1260.

[10] TCDD equivalents shall be calculated using the following formula, where the minimum levels (MLs) 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 MLs to zero. U.S.EPA 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

Congeners	Minimum Levels (pg/L)	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

[11] Priority Pollutants as defined by the CTR are listed in Attachment I of this Order.

[12] Detection methods used for coliforms (total and fecal) and *Enterococcus* shall be those presented in Table 1A of 40 C.F.R. part 136, unless alternate methods have been approved by U.S.EPA pursuant to Part 136 or improved methods have been determined by the Executive Officer and/or U.S.EPA.

2. Effluent Sediment Monitoring at Monitoring Location EFF-001

Effluent sediment monitoring is only required during years in which an exceedance occurs as described in Footnote 1 to the following table. If effluent sediment monitoring is not triggered by an exceedance, effluent sediment monitoring must be conducted as described here at least once during the permit term.

The Discharger must sample the discharge at the discharge point following final treatment, prior to the discharge entering the receiving water. The exact location of the sampling point must be stipulated in the initial self-monitoring report. The sediment sampling shall be conducted according to methods or metrics described in 40 C.F.R. part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act* and the State Water Board Sediment Quality Plan. The Discharger must collect sufficient effluent sample to provide an adequate amount of effluent sediments (suspended solids) for sediment analyses.

Table E-3. Effluent Sediment Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Method
Copper, Total Recoverable	mg/kg	Grab	1/Year[1]	[2]
Lead, Total Recoverable	mg/kg	Grab	1/Year[1]	[2]
Zinc, Total Recoverable	mg/kg	Grab	1/Year[1]	[2]
DDT[3]	mg/kg	Grab	1/Year[1]	[2]
PAHs[4]	mg/kg	Grab	1/Year[1]	[2]
PCBs[5]	mg/kg	Grab	1/Year[1]	[2]

1. Monitoring is only required during years in which a discharge occurs and sediment monitoring is triggered as specified in Footnote 7 to Table 4 of this Order. 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. Pollutants shall be analyzed in accordance with U.S.EPA or ASTM methodologies where such methods exist. Where no U.S.EPA or ASTM methods exist, the State Board or Regional Water Board shall approve the use of other methods. Analytical tests shall be conducted by laboratories certified by the State Water Board in accordance with Water Code section 13176.
3. The State Water Board *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality*, August 25, 2009, (known as Sediment Quality Plan, Attachment A) listed chemical analytes needed to characterize sediment contamination exposure and effect. According to Sediment Quality Plan, DDTs shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD and 2,4'DDD.
4. According to the Sediment Quality Plan, total PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthene, anthracene, biphenyl, naphthalene, 2,6-dimethylnaphthalene, fuorene, 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.
5. According to 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',5,6-octachlorobiphenyl, 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl, and decachlorobiphenyl.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Chronic Toxicity Testing

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 both the required toxicity tests and Toxicity Identification Evaluation (TIE) studies. 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. Chronic 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 chronic toxicity tests on effluent samples—at the in-stream waste concentration 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). Artificial sea salts shall be used to increase sample salinity. In no case shall these species be substituted with another test species unless written authorization from the 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. 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 as referenced in this section. The 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.

Rescreening is required at least once per five (5) years. The Discharger shall rescreen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of rescreening tests demonstrates that the same species is the most sensitive, then the rescreening does not need to include more than one suit of tests. If a different species is the most sensitive, or if there is ambiguity, then the Discharger shall proceed with suites of screening tests using enough collected effluent for a minimum of three, but not to exceed five suites.

5. Quality Assurance and Additional Requirements

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

a. The discharge is subject to a 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_o) for the TST approach is: Mean discharge IWC response ≤ (0.75 x Mean control response). 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: ((Mean control response-Mean discharge IWC response) ÷ Mean control response)) x 100.

b. The Median Monthly Effluent Limitation (MMEL) for chronic toxicity only applies when there is a discharge on 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."

c. 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.

d. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported.

e. 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).

6. 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 a minimum, the work plan shall include:

a. A description of the investigation and evaluation techniques that would be used to identify potential causes and source of toxicity, effluent variability, and treatment system efficiency.

b. 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.

c. 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).

7. Toxicity Identification Evaluation and Toxicity Reduction Evaluation Process

a. Toxicity Identification Evaluation (TIE). A toxicity test sample is immediately subject to TIE procedures to identify the toxic chemical(s), if a chronic toxicity test shows "Fail and % Effect value ≥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 Confirmation 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.

b. 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:

i. The potential sources of pollutant(s) causing toxicity.

ii. Recommended BMPs and/or treatment to reduce the pollutant(s) causing toxicity.

iii. Follow-up monitoring to demonstrate that toxicity has been removed.

iv. Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.

v. A schedule for these actions, progress reports, and the final report.

c. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.

d. The Discharger shall conduct routine effluent monitoring for the duration of the TIE/TRE process.

e. The Regional Water Board recognizes that toxicity may be episodic and identification of causes 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.

8. Reporting

The Self-Monitoring Report (SMR) shall include a full laboratory report for each toxicity test. This report shall be prepared using the format and content of the test methods manual chapter titled *Report Preparation*, including:

a. The toxicity test results for the TST approach, reported as “Pass” or “Fail” and “Percent Effect” at the chronic toxicity IWC for the discharge.

b. Water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

c. TRE/TIE results. The Regional Water Board Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses.

d. Statistical program (e.g., TST calculator, CETIS, etc.) output results for each toxicity test.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location RSW-001

1. The Discharger shall monitor Long Beach Inner Harbor at RSW-001, a location that is outside the influence of the effluent discharge at least 50 feet from the point of discharge and is in a direction that is opposite the direction of tidal flow at the discharge point at the time of collection, as follows:

Table E-4. Receiving Water Monitoring Requirements[3]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Ammonia, Total as N	mg/L	Grab	1/Year	[1,2]
Total Suspended Solids	mg/L	Grab	1/Year	[1]
Turbidity	NTU	Grab	1/Year	[1]
Dissolved Oxygen	mg/L	Grab	1/Year	[1]
Chemical Oxygen Demand	mg/L	Grab	1/Year	[1]
Electrical Conductivity	µmho/cm	Grab	1/Year	[1]
pH	s.u.	Grab	1/Year	[1,2]
Salinity	ppt	Grab	1/Year	[1,2]
Temperature	ºF	Grab	1/Year	[1,2]
Priority Pollutants[4]	µg/L	Grab	1/Year	[1]
TCDD Equivalents[5]	µg/L	Grab	1/Year	[1]

[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 MLs specified in Attachment 4 of the SIP, provided as Attachment H. Where no methods are specified for a given pollutant, the methods must be approved by this Regional Water Board or the State Water Board.

[2] Receiving water ammonia, pH, temperature, and salinity must be analyzed at the same time the samples are collected for Priority Pollutants analysis. A hand-held field meter may be used for pH and temperature, provided the meter utilizes an EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions; all testing shall be conducted by a field technician or chemist from an ELAP certified laboratory provided that the personnel receives proper training and follows laboratory SOPs for field sampling and analysis. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

[3] Receiving water monitoring is only required during years of discharge.

[4] Priority Pollutants as defined by the CTR, and included as Attachment I. Annual receiving water monitoring samples shall be collected during the first hour of discharge from the first storm event of the year at the first safe opportunity after effluent monitoring samples have been collected. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, then a sample shall be obtained, at the first safe opportunity within 12 hours of the beginning of the storm water discharge.

[5] TCDD equivalents shall be calculated using the following formula, where the MLs and 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 MLs to zero. U.S.EPA 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

Congeners	Minimum Levels (pg/L)	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

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IX. OTHER MONITORING REQUIREMENTS

A. Rainfall Monitoring

The Discharger shall measure and record the rainfall on each day of the month or submit the data obtained from the nearest city/county operated rain gauge monitoring station. This information shall be included in the monitoring report for that month.

B. 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.

The Discharger is also required to make visual observations on the receiving water quality during bulk material loading and unloading operations to document the management measures that were implemented, and to estimate the quantity of material(s) spilled on the dock or shore. Spills or discharges in the Long Beach Inner Harbor are prohibited. If spills occur, they are to be documented with a quantity estimate and reported.

C. Regional Monitoring

The Discharger may be required to participate in the development of Regional Monitoring Program(s) to address pollutants as specified in the Harbor Toxics TMDL. If the Discharger joins a group of stakeholders to complete this monitoring, the Discharger must provide

documentation of participation and a description of applicable responsibilities. The Regional Water Board must also be provided with documentation of the availability of the reports associated with the implementation of the Monitoring Plan.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

2. If there is no discharge during any reporting period, the Discharger shall indicate under penalty of perjury in the corresponding monitoring report that no effluent was discharged to surface water during the reporting period.

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

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs 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 website 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 SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMRs 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/Day	May 1, 2015	January 1 through March 31	May 1
		April 1 through June 30	August 1
		July 1 through September 30	November 1
		October 1 through December 31	February 1

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
1/ Discharge Event	May 1, 2015	January 1 through March 31	May 1
		April 1 through June 30	August 1
		July 1 through September 30	November 1
		October 1 through December 31	February 1
1/Year	May 1, 2015	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.

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. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

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

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

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

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

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

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

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

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

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

C. Discharge Monitoring Reports (DMRs)- Not Applicable

D. Other Reports

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

a. Initial Investigation TRE workplan

b. Updated SWPPP

c. Updated BMPP

d. Spill Contingency Plan

The SWPPP, BMPP, and Spill Contingency Plan 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. All changes or revisions to the SWPPP, BMPP, and Spill Contingency Plan shall be submitted to the Regional Water Board within 30 days of revisions.

2. According to the Harbor Toxics TMDL, the Discharger shall submit an annual monitoring/implementation report to the Regional Water Board. The report shall describe the measures implemented and the progress achieved toward meeting the assigned WLAs, as specified in Section VI.C.2.c. The annual report shall be received by the Regional Water Board by the specified date in the proposed Monitoring Plan and Quality Assurance Project Plan (QAPP).

3. The Discharger shall notify the Regional Water Board, in writing, of its compliance or noncompliance with the compliance schedule requirements no later than 14 days

following each completion date as specified in the compliance schedule in Table 8 of this Order. The Regional Water Board shall receive the first progress report on May 14, 2016.

ATTACHMENT F – FACT SHEET

CONTENTS

TABLES

ATTACHMENT F – FACT SHEET

As described in section II.B of this Order, the Los Angeles Regional Water Quality Control Board (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	**4B192078001**
Discharger	**Metropolitan Stevedore Company**
Name of Facility	**Metropolitan Stevedore Company, Bulk Marine Terminal**
Facility Address	**1045 Pier G Avenue, Berth 212** **Long Beach, CA 90802** **Los Angeles County**
Facility Contact, Title and Phone	**Malcolm Pitt, Terminal Manager, (562)983-8425**
Authorized Person to Sign and Submit Reports	**Malcolm Pitt, Terminal Manager, (562)983-8425**
Mailing Address	**P.O. Box 547, Wilmington, CA 90744**
Billing Address	**720 East E Street, Wilmington, CA 90744**
Type of Facility	**Industrial, Marine Cargo Handling (SIC Code 4491)**
Major or Minor Facility	**Minor**
Threat to Water Quality	**2**
Complexity	**C**
Pretreatment Program	**Not Applicable**
Recycling Requirements	**Not Applicable**
Facility Permitted Flow	**0.9 million gallons per day (MGD)**
Facility Design Flow	**0.9 million gallons per day (MGD)**
Watershed	**Dominguez Channel and Los Angeles/Long Beach Harbors**
Receiving Water	**Long Beach Inner Harbor**
Receiving Water Type	**Enclosed Bay**

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A. Metropolitan Stevedore Company (hereinafter Discharger) is the operator of the Metropolitan Stevedore Company, Bulk Marine Terminal (hereinafter Facility), a marine bulk cargo handling and storage facility. The Facility is located at 1045 Pier G Avenue, Berth 212 through 215, Long Beach, CA 90802. The Port of Long Beach owns the property, and Metropolitan Stevedore Company leases the property from the Port of Long Beach.

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

B. The Facility discharges treated storm water and process wastewater to the Long Beach Inner Harbor, a water of the United States and State of California. The Discharger was previously regulated by Order No. R4-2009-0097, adopted on September 3, 2009 and expired on August 10, 2014. The terms and conditions of that Order, as per 40 C.F.R. section 122.6, were administratively extended and continue in effect until a new order is adopted. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. The Discharger filed a report of waste discharge and submitted an application for reissuance of its WDRs and NPDES permit on March 18, 2014. The application was deemed complete on September 23, 2014. A site visit was conducted on September 29, 2014 to observe operations and collect additional data to develop permit limitations and requirements for waste discharge.

II. FACILITY DESCRIPTION

Metropolitan Stevedore Company operates the Facility located at 1045 Pier G Avenue, Berth 212, Long Beach, California. Operations at the Facility consist of marine cargo handling and special bulk cargo storage. The cargo consists of bulk dry materials such as coal, petroleum coke, sulfur, calcium carbonate, and sulfate. The cargo is off loaded from trucks and rail cars and is stored temporarily onsite in several storage barns before being loaded onto ocean-bound vessels for shipment overseas. All storage barns are covered.

A. Description of Wastewater Treatment and Controls

The Facility discharges up to 900,000 gallons per day (gpd) of treated storm water and wastewater from Discharge Point 001 to Long Beach Inner Harbor, a water of the United States. Wastewater at the Facility primarily consists of facility wash down and truck wash water; drainage of residual water from petroleum coke storage piles; and leaks from air pollution control mist and water spray systems. There are no storm drains at the dock area where the transfer of materials occurs. A sweeper truck is continuously driven up and down the dock area to wash the dock area, using the Facility's reclaimed water, and to collect all wash water, storm water, or spills that have accumulated in the dock area during material transfers.

Storm water and process wastewater are routed via facility drains or collected by sweeper trucks to the M-1 sump, which has a solids retention system that eliminates most suspended solids from the combined storm water and process wastewater before the water is pumped into the Facility's water reclamation system. The water reclamation system consists of a one million gallon storage and equalization tank, a 12,500 gallon auxiliary storage tank for dirty water, a clarifier, metal polishing filters, and a 25,000 gallon clean water storage tank. Reclaimed water is used for facility wash downs and dust control and is added to the bulk materials. Flocculants, caustic soda, aluminum sulfate, and sulfuric acid are added to the reclamation system after the water goes through the storage and equalization tank, but before the clarifier. Underflow from the clarifier is transferred to two sludge drying beds. The solids

from the sludge drying beds are air dried and shipped by railcar to an out-of-state landfill, while the drainage from the sludge drying beds is routed back to the storage tanks. The supernatant from the clarifier is routed to the clean water storage tanks for subsequent reuse within the facility. The Discharger uses as much of the treated water as possible within the Facility. The remaining portion of the treated water is discharged to the sanitary sewer under the terms of three industrial wastewater discharge permits from the Sanitation Districts of Los Angeles County, Permits Nos. 003671, 010001, and 014683. Discharge of treated storm water and wastewater to Discharge Point 001 is intermittent and occurs during rainfall events, when storage tanks are full and the amount of treated water that can be reused within the facility is exceeded by inflow. The discharge then takes place by opening a discharge valve, which routes the effluent from the clean water storage tanks to the metal polishing filters for further processing before flowing through the storm drain to Discharge Point 001 (Thums Outfall).

Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic and a drainage map of the Facility.

B. Discharge Points and Receiving Waters

Consistent with the prior Order (Order No. R4-2009-0097) and the submitted ROWD, the Facility discharges up to 0.9 million gallons per day (MGD) of treated storm water and wastewater through Discharge Point 001 to the Long Beach Inner Harbor, a water of the United States and State of California. The coordinates for Discharge Point 001 were listed incorrectly in the prior Order; the correct coordinates are included in this Order (Latitude 33.7445°, Longitude -118.2041°).

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

Effluent limitations from the existing Order No. R4-2009-0097 for Discharge Point 001 are listed in Table F-2. No discharge has occurred during the duration of Order No. R4-2009-0097; therefore, representative monitoring data from the term of the previous Order No. R4-2004-0140 are listed in Table F-2.

Table F-2. Historic Effluent Limitations and Monitoring Data- EFF-001

Parameter	Units	Effluent Limitation		Monitoring Data (From January 2005)	
		Average Monthly	Maximum Daily	Highest Average Monthly Discharge	Highest Daily Discharge
pH	s.u.	6.5 – 8.5		--	5.3 - 8.03
BOD_5 @ 20°C	mg/L	20	30	ND	1.4
	lbs/day[1]	150	230	ND	0.26
Oil and Grease	mg/L	10	15	ND	1.3
	lbs/day[1]	75	110	ND	4.5
Total Suspended Solids (TSS)	mg/L	50	75	51	76
	lbs/day[1]	380	560	104	177
Flow	gpd	--	900000	--	493300
Phenols	mg/L	--	1	ND	ND
Settleable Solids	mL/L	--	0.3	ND	0.18
Temperature	°F	--	86	--	[5]
Turbidity	NTU	50	75	268	717
Acute Toxicity	% survival	[2]		[3]	

Parameter	Units	Effluent Limitation		Monitoring Data (From January 2005)	
Total Organic Carbon	mg/L	--	--	12.5	20
Sulfides	mg/L	--	0.1	ND	ND
Ammonia, Total as N	mg/L	--	--	ND	0.28
Benzo(a)anthracene	µg/L	--	--	--	2.4
Benzo(a)pyrene	µg/L	--	--	--	2.8
Benzo(b) fluoranthene	µg/L	--	--	--	1.6
Chrysene	µg/L	--	--	--	5.4
Copper	µg/L	--	--	--	14
Fluoranthene	µg/L	--	--	--	2.4
Nickel	µg/L	--	--	--	23
Phenanthrene	µg/L	--	--	--	1.6
Pyrene	µg/L	--	--	--	5.2
Toluene	µg/L	--	--	--	0.82
Zinc	µg/L	--	--	--	737
TPH as Diesel	µg/L	--	--	--	4200
TPH as Gasoline	µg/L	--	--	--	1700
PCBs sum[4]	µg/L	--	--	--	ND
4.4 – DDT	µg/L	--	--	--	ND
TCDD equivalent	µg/L	--	--	--	3.34E-8

ND=Non detect

[1] Mass limitations are based on an allowable discharge of 0.9 MGD of treated storm water and process water.

[2] Average survival in the undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and no single test shall produce less than 70% survival.

[3] 0% survival was recorded in January 2005. Based on the Toxicity Identification Evaluation (TIE)/ Toxicity Reduction Evaluation (TRE) performed by the Discharger, the Acute Toxic was conducted using a freshwater species (fathead minnow) instead of a marine/estuarine species (topsmelt). Three subsequent testing events were conducted from March 2005 to April 2005 using the marine/estuarine species topsmelt and all resulted in 95 to 100% survival.

[4] PCBs sum refers to sum of PCB 1016, 1221, 1232, 1242, 1248, 1254, and 1260.

[5] No temperature monitoring was conducted.

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D. Compliance Summary

No effluent limit violations have occurred during the term of Order No. R4-2009-0097. There was one late reporting violation for the 2013 Fourth Quarter Self-Monitoring Report, cited for a one-day late submission, on February 4, 2014.

E. Planned Changes

The Discharger will implement or modify new or existing BMPs, engineering controls, and treatment to come into compliance with the final effluent limitations for copper, 4,4'-DDT, total PCBs, benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene.

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 also serves as Waste Discharge Requirements (WDRs) 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. Environmental Protection Agency (U.S.EPA) and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (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. The **Water Quality Control Plans.** The Los Angeles Regional Water Quality Control Board (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. Beneficial uses applicable to the Long Beach Inner Harbor are as follows:

Table F-3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Long Beach Inner Harbor	Existing: Industrial service supply (IND); Navigation (NAV); Non-contact water recreation (REC-2); Commercial and sport fishing (COMM); Marine habitat (MAR); and Preservation of rare, threatened, or endangered species (RARE). Potential: Water contact recreation (REC-1) and Shellfish harvesting (SHELL).

Enclosed Bays and Estuaries Policy. The Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Enclosed Bays 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."

The Facility discharges into Long Beach Inner Harbor, within the enclosed bay. Though discharge from the Facility includes process water, it is mixed with a large proportion of storm water and discharges occur only during storm events, when capacities of the storage and equalization tanks are exceeded. Therefore, the discharge is not considered to be industrial process wastewater. Nonetheless, this Order contains provisions necessary to protect all beneficial uses of the receiving water.

2. **Thermal Plan.** The State Water Board adopted a Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan) on January 7, 1971, 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,* evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel, a number of aquatic species prevalent in the region. A maximum effluent temperature limitation of 86°F was determined to be appropriate for protection of aquatic life and is included in this Order.

3. **Sediment Quality.** The State Water Board adopted the Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1, Sediment Quality on September 16, 2008, and it became effective on August 25, 2009. This plan supersedes other narrative sediment quality objectives, and establishes new sediment quality objectives and related implementation provisions for specifically defined sediments in most bays and estuaries. Requirements of this Order implement sediment quality objectives of this Plan.

4. **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 water quality criteria for priority pollutants.

5. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S.EPA through the NTR and to the priority pollutant objectives established by the Los Angeles 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.

6. **Antidegradation Policy.** 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 (Statement of Policy with Respect to Maintaining High Quality of

Waters in California"). 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.

7. **Anti-Backsliding Requirements.** Sections 402(o)(2) 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.

8. **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. §§ 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 and endangered species. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

D. Impaired Water Bodies on CWA Section 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 CWA section 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.

Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2010 CWA section 303(d) list and have been scheduled for TMDL development. On November 12, 2010, U.S. EPA approved California's 2010 CWA Section 303(d) list of impaired waters and disapproved the omission of several water bodies and associated pollutants that met federal listing requirements. U.S. EPA identified additional water bodies and pollutants for inclusion on the State's CWA section 303(d) list. On October 11, 2011, U.S.EPA issued its final decision regarding the waters U.S. EPA added to the State's CWA section 303(d) list.

The Facility discharges into Long Beach Inner Harbor. The 2010 California CWA section 303(d) List classifies the Long Beach Inner Harbor as impaired. The pollutants/stressors of concern for the Long Beach Inner Harbor include: pathogens (beach closures), miscellaneous pollutants causing benthic community effects, benzo(a)pyrene, chrysene (C1-C4), copper, DDT (dichlorodiphenyltrichloroethane), PCBs (polychlorinated biphenyls), sediment toxicity, and zinc. TMDLs have been developed to address bacteria and toxics in the Los Angeles/Long Beach Harbor areas.

Following are summaries of the TMDLs for the Los Angeles-Long Beach Inner Harbor:

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 U.S.EPA 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 Inner Harbor, but does not address the location near the Facility. The requirements in the Bacteria TMDL are not applicable to the discharge from the Facility. Also, the discharge is treated storm water and wastewater from a fuel storage facility and is not expected to contribute to elevated bacterial densities. Therefore, no effluent limitations for bacteria are included in this order. However, this Order requires the Discharger to monitor for bacteria.

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 Toxics TMDL was approved by the State Water Board on February 7, 2012, the OAL on March 21, 2012, and the U.S.EPA 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. The Harbor Toxics TMDL includes:

   a. Sediment interim concentration-based allocations (in mg/kg sediment) for copper, lead, zinc, DDT, PAHs, and PCBs (Attachment A to Resolution R11-008, p. 11).

   b. Water column final concentration-based WLAs (µg/L) for copper, lead, zinc, 4,4'-DDT, and total PCBs (Attachment A to Resolution R11-008, pp. 13-14).

   c. Provisions for monitoring discharges and/or receiving waters during the TMDL's 20-year implementation schedule to determine attainment with WLAs and LAs as appropriate.

   Implementation of the Harbor Toxics TMDL

   In accordance with the TMDL and federal regulations, this Order requires compliance with final WQBELs that are statistically-calculated based on saltwater column final concentration-based TMDL WLAs (in µg/L, total recoverable 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 an implementation plan and schedule that provides responsible parties to the TMDL up to 20 years from the effective date of the TMDL to comply with the final CTR TMDL-based WLAs, when warranted. The Regional Water Board sought authority from U.S. EPA under CWA section 303(c)(2) to provide compliance schedules consistent with the interim and final CTR TMDL-based WLAs and associated implementation schedule in certain NPDES permits pursuant to CWA section 301(b)(1)(C). Without CWA section 303(c)(2) approval, compliance schedules for CTR criteria are no longer authorized pursuant to the CTR and the State Water Board's Resolution 2008-0025 "Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits" (Compliance Schedule Policy). On November 8, 2012, the U.S. EPA issued an approval action pursuant to CWA section 303(c)(2) that authorized the Regional Water Board to include compliance schedules consistent with the interim and final CTR-based TMDL WLAs and the associated implementation schedule in the Harbors Toxics TMDL. The approval action authorizes the Regional Water Board to include compliance schedules, provided they are consistent with the CWA and EPA regulations (including 40 C.F.R. section 122.47), in NPDES permits issued to existing dischargers for more stringent WQBELs based on the WLAs in the TMDL. The approval action specifies that the Regional Water Board may authorize compliance schedules in NPDES permits for up to 20 years for non-MS4 storm water

dischargers (General Construction, General Industrial, and individual industrial permittees) for copper, lead, zinc, DDT, Dieldrin, total PCBs, chlordane, and pyrene, and other non-storm water dischargers for copper, lead, and zinc, consistent with the implementation plan and schedule in the TMDL.

As discussed in more detail below, this Order includes a compliance schedule, with interim effluent limits and required tasks, for copper, 4,4'-DDT, and total PCBs that will lead to the Discharger's compliance with the corresponding final WQBELs within five years. Immediate compliance with the corresponding final effluent limits for these parameters is either not attainable or unknown under current facility performance as demonstrated by the most recent monitoring data.

This Order also includes interim sediment allocations (monitoring thresholds) based on the TMDL's interim sediment allocations (in mg/kg sediment) for copper (142.3), lead (50.4), zinc (240.6), DDT (0.070), PAHs (4.58), and PCBs (0.060), 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 final sediment allocations were developed to ensure that the beneficial uses of the Long Beach Inner Harbor are preserved.

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 Long Beach Inner Harbor are preserved.

During each reporting period, if effluent monitoring results exceed both a TSS effluent limit and an effluent limit or performance goal for copper, lead, zinc, DDT, benzo(a)pyrene, chrysene, or PCBs, then the Discharger has not demonstrated attainment with the sediment allocations stipulated by the Harbor Toxics TMDL, Resolution No. R11-008, page 11, Item 3, and implementation of the effluent sediment monitoring program will be 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 interim sediment allocations (monitoring thresholds) in Table 6 of this Order demonstrates attainment with the monitoring thresholds and additional effluent sediment monitoring of the effluent is not required to demonstrate attainment with the sediment allocations. An effluent sediment monitoring result that exceeds the 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 effluent sediment monitoring results is at or below the applicable sediment allocation.

In an effort to accurately characterize the sediment discharged from the Facility, the Discharger will be required to collect enough effluent to perform sediment monitoring at least once during the permit term. This monitoring is required only if the effluent monitoring does not trigger sediment monitoring during the five year permit term.

Harbor Toxics TMDL Water Column, Sediment, and Fish Tissue Monitoring for 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 a maximum of 20 years after the TMDL effective date for a Discharger who justifies the need for that amount of time. 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 TMDL requires that the Monitoring Plan and QAPP shall be submitted 20 months after the effective date (March 23, 2012) of the TMDL for public review and subsequent Executive Officer approval. Since the effective date of this Order exceeds the deadline for the Monitoring Plan and QAPP, the Discharger shall join a group already formed or develop a site specific monitoring plan. If the Discharger joins a group already formed, the Discharger shall notify the Regional Water Board within 90 days of the effective date of the Order. If the Discharger decides to develop a site specific Monitoring Plan with a QAPP, the Discharger shall notify the Regional Water Board within 90 days of the effective date of the Order and submit them to the Regional Water Board within 12 months of the effective date of the Order for public comment and the Regional Water Board review and approval. The Discharger shall begin monitoring 6 months after the Monitoring Plan and QAPP are approved, unless otherwise directed by the Executive Officer. The compliance monitoring program shall include water column, sediment, and fish tissue monitoring.

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.

Order No. R4-2009-0097 established effluent limitations for a number of pollutants believed to be present in the discharge of storm water and wastewater from a bulk fuel handling and storage facility. Effluent limitations in Order No. R4-2009-0097 were established for pH, temperature, total suspended solids, turbidity, BOD, oil and grease, settleable solids, phenols, sulfides, nickel, zinc, TCDD, and chrysene. Due to the nature of products that are handled at the Facility (including coal, petroleum, coke, sulfur, soda ash, and sulfate), these constituents can be indicators of spills within the Facility or malfunction of the Facility's water reclamation system, In addition, total petroleum hydrocarbons, copper, lead, nickel, zinc, TCDD equivalents, benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene are pollutants of concern as these constituents were identified based on a review of pollutants commonly found in discharges from similar facilities and/or were historically detected in the effluent.

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.

A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan, State Water Board's plans and policies, the CWA, the Water Code, and previous permit provisions, and are consistent with the requirements set for other discharges to the Long Beach Inner Harbor regulated by an NPDES permit.

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 a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

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 limitations, guidelines and standards (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

Federal ELGs have not been developed for treated wastewater and storm water runoff from marine cargo handling operations. Pursuant to section 122.44(k), the prior Order

required the Discharger to develop and implement Best Management Practices (BMPs) and submit a Storm Water Pollution Prevention Plan (SWPPP). This Order will continue to require the Discharger to update and implement, consistent with the prior Order requirements, a SWPPP to outline site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into the storm drain or receiving water. At a minimum, the management practices should ensure that raw materials and chemicals do not come into contact with storm water in the undiked areas, that all storm water is contained within the dike at all times, and unauthorized non-storm water discharges do not occur at the Facility. This Order also requires the Discharger to update and implement, consistent with the prior Order requirements, a BMPP to establish site-specific procedures that will ensure proper operation and maintenance of transfer and storage areas, and to ensure that unauthorized non-storm water discharges (i.e. spills) do no occur at the Facility.

This order will require the Discharger to implement a Spill Contingency Plan (SCP). The SCP should be site-specific and shall cover all areas of the Facility. A Spill Prevention Control and Countermeasure Plan (SPCC), developed in accordance with 40 C.F.R. section 112, may be substituted for the SCP.

The combination of the SWPPP, BMPP, SCP, and permit limitations based on past performance and reflecting BPJ serve as technology based effluent limitations, in the absence of established ELGs, in order to carry out the purposes and intent of the CWA.

Other technology-based requirements in this Order are based on case-by-case numeric limitations developed using BPJ in accordance with 40 C.F.R. section 125.3. Effluent limitations were established in Order No. R4-2009-0097 for total suspended solids, settleable solids, phenols, sulfides, oil and grease, BOD, and turbidity at Discharge Point 001. This Order retains effluent limitations for the above pollutants except sulfides and phenol based on BPJ and antibacksliding requirements. In setting these limitations, the Regional Water Board considered the factors listed in 40 C.F.R. section 125.3(d). The limits are consistent with industry standards for storage and transfer facilities, and are not expected to require additional equipment as the limitations are retained from the prior permit. The effluent limitations for sulfides and phenol were inherited from historical Orders for the Discharger and are no longer applicable. There have been significant modifications to the Discharger's water reclamation system since the implementation of those limits, and recent effluent monitoring results from the Discharger consistently show non-detected levels for sulfides and phenols. There is no reasonable potential that sulfide and phenol are present in the discharge; therefore, removing these effluent limitations is appropriate based on BPJ. The Discharger is still required to monitor sulfides and phenol in future discharges as stated in the MRP.

The Regional Water Board has included a new BPJ technology-based effluent limitation for total petroleum hydrocarbons (TPH) equal to 100 µg/L, as authorized by section 402(a)(1) of the CWA and 40 C.F.R. section 125.3. The Facility handles and transfers fuel, such as petroleum coke and coal, as part of its operations; discharge from the Facility may include a multitude of petroleum hydrocarbons that may become entrained in storm water. Rather than establishing individual effluent limitations on numerous petroleum hydrocarbon parameters, this Order includes a new BPJ technology-based effluent limitation for TPH to serve as an indicator pollutant. The technology-based effluent limitation represents the level achievable through 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 proposed new limit is consistent with industry standards for fuel storage and transfer facilities. Effluent monitoring data for TPH as gasoline and as diesel were available for two sampling dates during the term of Order

No. R4-2004-0140. Both the sum of TPH result from the January 9, 2005 discharge and the TPH as diesel result from the January 10, 2005 discharge were higher than the new limit. As current technology used by the Discharger has not demonstrated the ability to consistently meet the new limitation; changes to equipment, facilities, processes, or controls will likely be required.

Limitations for the following pollutants are consistent with technology-based limitations included in other Orders within the State for similar types of discharges.

Table F-4. Summary of Technology-based Effluent Limitations – EFF-001

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Oil and grease	mg/L	10	15
	lbs/day[1]	75	110
Total Suspended Solids	mg/L	50	75
	lbs/day[1]	380	560
BOD_5 @ 20°C	mg/L	20	30
	lbs/day[1]	150	230
Total Petroleum Hydrocarbons(TPH)[2]	µg/L	--	100
	lbs/day[1]	--	0.75
Turbidity	NTU	50	75
Settleable Solids	ml/L	--	0.3

[1] Mass-based effluent limitations are based on a storm water discharge of 900,000 gpd.
[2] TPH equals the sum of TPH gasoline (C_4-C_{12}) and TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).

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). Permit WQBELs must also be consistent with TMDL WLAs approved by U.S.EPA.

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 U.S.EPA

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 in 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 be used to evaluate reasonable potential and calculate WQBELs for storm water discharges as well. As described in the statement from the TSD, an analogous approach may also be used to evaluate reasonable potential and calculate WQBELs for storm water discharges as well. Hence, in this Order, the Regional Water Board has used the SIP methodology to evaluate reasonable potential for discharges through Discharge Point 001.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

As noted in section II of the Limitations and Discharge Requirements, the Regional Water Board adopted a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to Long Beach 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.

Priority pollutant water quality criteria in the CTR are applicable to the Long Beach 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 40 C.F.R. section 131.38(c)(3), that 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. The receiving water salinity sampling data in 2005 indicate a salinity of 14.5 ppt; therefore, the CTR criteria for saltwater or human health consumption of organism CTR criteria are applicable and the most stringent values were used.

Table F-5 summarizes the applicable water quality criteria/objective for priority pollutants reported in detectable concentrations in the discharge effluent at EFF-001 or receiving water at RSW-001. These criteria were used in conducting the RPAs for this Order.

Table F-5. Applicable Water Quality Criteria

CTR No.	Constituent	Selected Criteria	CTR/NTR Water Quality Criteria			
			Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L
6	Copper, Total Recoverable	3.73	5.78	3.73	--	--
9	Nickel, Total Recoverable	8.28	74.75	8.28	--	4,600
13	Zinc, Total Recoverable	85.62	95.14	85.62	--	--
16	TCDD Equivalent	1.4×10^{-8}	--	--	--	1.4×10^{-8}
39	Toluene	200,000	--	--	--	200,000
60	Benzo(a)anthracene	0.049	--	--	--	0.049

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CTR No.	Constituent	Selected Criteria	CTR/NTR Water Quality Criteria			
			Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L
61	Benzo(a)pyrene	0.049	--	--	--	0.049
62	Benzo(b)fluoranthene	0.049	--	--	--	0.049
73	Chrysene	0.049	--	--	--	0.049
86	Fluoranthene	370	--	--	--	370
99	Phenanthrene	No Criteria	--	--	--	No Criteria
100	Pyrene	11,000	--	--	--	11,000

On May 5, 2011, the Regional Water Board adopted Resolution No. R11-008 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 Toxics TMDL was approved by the State Water Board on February 7, 2012, the OAL on March 21, 2012, and the U.S.EPA on March 23, 2012. The Harbor Toxics TMDL assigned concentration-based waste load allocations (WLAs) to any future minor NPDES permits or enrollees under a general NPDES permits. The TMDL states, "*The allocations are set equal to the saltwater targets for metals and equal to the human health targets for the organic compounds in CTR. The averaging period for the concentration-based WLAs shall be consistent with that specified in the regulation establishing the criterion or objective or relevant implementation guidance published by the establishing agency.*"

Table F-6 summarizes the applicable WLAs for copper, lead, zinc, 4,4'-DDT and total PCBs contained in the Harbor Toxics TMDL. These WLAs are applicable to Discharge Point 001 discharging to the Long Beach Inner Harbor.

Table F-6. Harbor Toxics TMDL WLAs Applicable to Discharge Point 001

Constituents	Units	WLA
Copper, Total Recoverable[1]	µg/L	3.73
Lead, Total Recoverable[1]	µg/L	8.52
Zinc, Total Recoverable[1]	µg/L	85.6
4,4'-DDT	µg/L	0.00059
Total PCBs	µg/L	0.00017
Total PAHs[2]	µg/L	--

1. WLAs for metals are converted from saltwater dissolved CTR criteria using CTR saltwater default translators.
2. CTR human health criteria were not established for total PAHs. Therefore, the CTR criterion for individual PAHs of 0.049 µg/L is applied individually to benzo(a)anthracene, benzo(a)pyrene, and chrysene.

This permit implements the applicable WLAs as required in the TMDL. The WLAs are converted into effluent limitations by applying the CTR-SIP procedures.

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

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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.

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:

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

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

c. Trigger 3 – If other related information such as CWA section 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 Regional Water Board developed WQBELs for copper, lead, zinc, 4,4'-DDT and total PCBs based on the wasteload allocations included in the Harbor Toxics TMDL effective on March 23, 2012. The effluent limitations for these pollutants were established regardless of whether or not there is reasonable potential for the pollutants to be present in the discharge at levels that would cause or contribute to a violation of water quality standards. The Regional Water Board developed water quality-based effluent limitations for these pollutants pursuant to 40 C.F.R. section 122.44(d)(1)(vii), which does not require or contemplate a reasonable potential analysis. Similarly, the SIP at Section 1.3 recognizes that reasonable potential analysis is not appropriate if a TMDL has been developed.

The RPA was conducted using effluent monitoring data collected during three discharge events spanning from January 3, 2005 through January 12, 2005, and receiving water monitoring data from 2005. Refer to Attachment J for a summary of the RPA and associated effluent limitation calculations. Table F-7 summarizes the results of the RPA.

Table F-7. Summary of Reasonable Potential Analysis

CTR No.	Constituent	Applicable Water Quality Criteria (C)[1]	Max Effluent Conc. (MEC)[1]	Maximum Detected Receiving Water Conc.(B)[1]	Harbor Toxics TMDL WLAs	RPA Result Need Limit?	Reason
6	Copper, Total Recoverable	3.73	14	<5	Yes	Yes	TMDL
7	Lead, Total Recoverable	8.52	<5	<5	Yes	Yes	TMDL
9	Nickel, Total Recoverable	8.28	23	<5	No	Yes	MEC>C

CTR No.	Constituent	Applicable Water Quality Criteria (C)[1]	Max Effluent Conc. (MEC)[1]	Maximum Detected Receiving Water Conc.(B)[1]	Harbor Toxics TMDL WLAs	RPA Result Need Limit?	Reason
13	Zinc, Total Recoverable	85.62	737	41.2	Yes	Yes	TMDL
16	TCDD Equivalent	1.4×10^{-8}	3.3×10^{-8}	8.24×10^{-7}	No	Yes	MEC>C, B>C
39	Toluene	200,000	0.82	<1	No	No	MEC<C, B<C
60	Benzo(a)anthracene	0.049	2.4	<1	No	Yes	MEC>C
61	Benzo(a)pyrene	0.049	2.8	<0.2	No	Yes	MEC>C
62	Benzo(b)fluoranthene	0.049	1.6	<1	No	Yes	MEC>C
73	Chrysene	0.049	5.4	<5	No	Yes	MEC>C
86	Fluoranthene	370	2.4	<1	No	No	MEC<C, B<C
99	Phenanthrene	No Criteria	1.6	<1	No	No	No Criteria
100	Pyrene	11,000	5.2	<1	No	No	MEC<C, B<C
108	4,4'-DDT	0.00059	<0.05	<0.05	Yes	Yes	TMDL
119-125	PCBs, Total	0.00017	<0.2	<0.5	Yes	Yes	TMDL

[1] all numerical values expressed in ug/L.

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 the WLA established as part of a TMDL.

ii. Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).

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

b. WQBELs for copper, lead, nickel, zinc, TCDD equivalent, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, 4,4'-DDT, and total PCBs have been developed for discharges through Discharge Point 001. These WQBELs are based on monitoring results, WLAs included in the Harbor Toxics TMDL, and following the procedure based on the steady-state model, available in section 1.4 of the SIP.

c. Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. Therefore, in this Order, no dilution credit is included.

WQBELs Calculation Example

Using total recoverable nickel 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.

TENTATIVE

Concentration-Based Effluent Limitations

A set of AMEL and MDEL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health. The AMEL and MDEL limitations for aquatic life and human health are compared, and the most restrictive AMEL and the most restrictive MDEL are selected as the WQBEL.

Calculation of aquatic life AMEL and MDEL:

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

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

$ECA = C$ when $C \leq B$,

Where C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. Discharge from the Facility uses criteria for saltwater, which 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:

$ECA = C$

For nickel the applicable water quality criteria are (reference Table F-5):

$ECA_{acute} = 74.75$ µg/L

$ECA_{chronic} = 8.28$ µg/L

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

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

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

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6.

The number of available data set for nickel is less than 10 samples, so the CV is set equal to 0.6. The following values were used to develop the acute and chronic LTA using equations provided in Section 1.4, Step 3 of the SIP (Table 1 of the SIP also provides these values up to three decimals):

No. of Samples	CV	ECA Multiplier$_{acute\ 99}$	ECA Multiplier$_{chronic\ 99}$
6	0.60	0.321	0.527

Therefore, for total recoverable nickel, the LTAs are:

LTA_{acute} = 74.75 µg/L x 0.321 = 23.99 µg/L

$LTA_{chronic}$ = 8.28 µg/L x 0.527 = 4.36 µg/L

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

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

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

LTA = 4.36 µg/L

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as Average Monthly Effluent Limitations (AMEL) and Maximum Daily Effluent Limitation (MDEL). The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations. The value of the multiplier varies depending on the probability basis, the coefficient of variation (CV) of the data set, the number of samples (for AMEL) and whether it is a monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

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

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

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

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

No. of Samples Per Month	CV	Multiplier$_{MDEL\ 99}$	Multiplier$_{AMEL\ 95}$
4	0.6	3.115	1.552

For total recoverable nickel:

$AMEL_{aquatic\ life}$ = 4.36 x 1.552 = 6.77 µg/L

$MDEL_{aquatic\ life}$ = 4.36 x 3.115 = 13.6 µg/L

Calculation of human health AMEL and MDEL:

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

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

For nickel:

$AMEL_{human\ health}$ = 4,600 µg/L

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

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

For total recoverable nickel, 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	3.115	1.552	2.01

$MDEL_{human\ health}$ = 4,600 µg/L x 2.01 = 9,246 µg/L

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

For total recoverable nickel, the AMEL and MDEL based on aquatic life criteria are lower and are selected as WQBELs.

Final WQBELs for Nickel:

$AMEL_{nickel}$ = 6.77 µg/L

$MDEL_{nickel}$ = 13.6 µg/L

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, 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.

The priority pollutants that were not addressed by the Harbor Toxics TMDL were evaluated as follows. Human health criteria was used for TCDD equivalents, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and chrysene. Aquatic life criteria was used for nickel. These limitations are expected to be protective of the beneficial uses. Final WQBELs for each are summarized in Table F-8 of this Fact Sheet.

5. WQBELs Based on Basin Plan Objectives

The following Basin Plan Objectives, evaluated with respect to effluent monitoring data and Facility operations, are applicable to the Discharger:

a. pH. The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharge. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of the waste discharge. This Order includes effluent and receiving water limitations for pH to ensure compliance with Basin Plan Objectives for pH.

b. Ammonia. The Basin Plan objectives for ammonia are expressed as a function of pH and temperature. The toxicity of ammonia to aquatic organisms increases with increasing pH and temperature. This Order requires the Discharger to conduct effluent ammonia monitoring and receiving water monitoring for ammonia, pH,

temperature, and salinity in order to provide data necessary to calculate ammonia objectives and conduct future RPAs.

c. Dissolved Oxygen. This Order addresses dissolved oxygen through effluent and receiving water monitoring and receiving water limitations.

d. Turbidity. Where natural turbidity is between 0 to 50 NTU, increases shall not exceed 20%. 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.

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

f. Total Suspended Solids. The Basin Plan requires that, "Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses." This narrative objective has been translated into a numeric effluent limit, based on U.S.EPA's Quality Criteria for Water (commonly known as the "Gold Book"). In the Gold Book, U.S.EPA notes that "In a study downstream from a discharge where inert suspended solids were increased to 80 mg/L, the density of macroinvertebrates decreased by 60 percent…". This indicates that suspended solids concentrations of 80 mg/L in the receiving water resulted in adverse effects to aquatic life. As such, the Regional Water Board implemented an MDEL of 75 mg/L and an AMEL of 50 mg/L for the implementation of the narrative water quality objective for solids. These limitations are consistent with the limitations in Order No. R4-2009-0097.

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 is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses by aquatic organisms. Detrimental response includes, but is not limited to, decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. 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. Order No. R4-2009-0097 contains acute toxicity limitations based on the objectives in the Basin Plan.

Chronic toxicity is a more stringent requirement than acute toxicity. A chemical at a low concentration can have chronic effects but no acute effects. Because discharge from the Facility includes a multitude of chemicals, which individually may not be present in toxic concentrations while exhibiting aggregated toxic effects as a whole, this Order prescribes a chronic toxicity effluent limitation and requires chronic toxicity monitoring for the effluent at Discharge Point 001. The whole effluent toxicity testing requirements are based on U.S.EPA's 2010 Test of Significant Toxicity (TST) hypothesis testing approach. Chronic toxicity results are expressed as "Pass" or "Fail" and "% Effect.

7. Final WQBELs

Table F-8. Summary of Water Quality-based Effluent Limitations – EFF-001

Parameter	Units	Effluent Limitations			
		Maximum Daily	Average Monthly	Instantaneous Minimum	Instantaneous Maximum
pH	s.u.	--	--	6.5	8.5
Temperature	ºF	--	--	--	86
Chronic Toxicity	Pass or Fail and % Effect for TST approach	Pass or % Effect <50[3]	Pass[3,4]	--	--
Copper, Total Recoverable[2]	µg/L	6.1	3.1	--	--
	lbs/day[1]	0.046	0.023	--	--
Lead, Total Recoverable[2]	µg/L	14	7	--	--
	lbs/day[1]	0.11	0.053	--	--
Nickel, Total Recoverable	µg/L	14	6.8	--	--
	lbs/day[1]	0.11	0.051	--	--
Zinc, Total Recoverable[2]	µg/L	140	70	--	--
	lbs/day[1]	1.1	0.53	--	--
TCDD Equivalent	µg/L	2.8×10^{-8}	1.4×10^{-8}	--	--
	lbs/day[1]	2.1×10^{-10}	1.1×10^{-10}	--	--
Benzo(a)anthracene	µg/L	0.098	0.049	--	--
	lbs/day[1]	0.00074	0.00037	--	--
Benzo(a)pyrene	µg/L	0.098	0.049	--	--
	lbs/day[1]	0.00074	0.00037	--	--
Benzo(b)fluoranthene	µg/L	0.098	0.049	--	--
	lbs/day[1]	0.00074	0.00037	--	--
Chrysene	µg/L	0.098	0.049	--	--
	lbs/day[1]	0.00074	0.00037	--	--
4,4'-DDT[2]	µg/L	0.0012	0.00059	--	--
	lbs/day[1]	9.0×10^{-6}	4.4×10^{-6}	--	--
PCBs, Total[2]	µg/L	0.00034	0.00017	--	--
	lbs/day[1]	2.6×10^{-6}	1.3×10^{-6}	--	--

1. Mass-based effluent limitations are based on a storm water discharge of 0.9 MGD and are calculated as follows:
   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

2. The new effluent limitations are based on the Harbor Toxics TMDL WLAs that were used as chronic criteria in the calculations using the CTR-SIP procedures with a CV of 0.6.
3. Report "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL). Report "Pass" or "Fail" for Median Monthly Effluent Limitation (MMEL). During a calendar month, exactly three independent toxicity tests are required for routine monitoring when one toxicity test results in "Fail". This limit applies for wet weather discharges only.
4. This is a Median Monthly Effluent Limitation.

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 the removal of technology-based effluent limitations for sulfides and phenol, and a revision of the WQBEL for zinc. As discussed below, the relaxations of effluent limitations for sulfide and phenol are consistent with the anti-backsliding exceptions allowed in the CWA and federal regulations.

The federal anti-backsliding provisions allow for relaxation of effluent limitations when material and substantial alterations or additions to the permitted facility occurred after permit issuance that justifies the application of a less stringent effluent limitation, see section 402(o)(2)(A). Another exception is when information is available which was not available at the time of permit issuance that would have justified the application of a less stringent effluent limitation at the time of permit issuance, see section 402(o)(2)(B)(i).

The effluent limitations for sulfide and phenols in Order No. R4-2009-0097 are inherited from historical Orders. Since the introduction of these limitations, the Facility has undergone renovations in its water reclamation system and monitoring results for sulfide and phenols from recent discharges were consistently non-detected, demonstrating the Facility's ability to comply with the effluent limits and that there is no reasonable potential for these two contaminants to exceed applicable limits. Monitoring requirements for sulfide and phenols are included in this Order, as stated in the MRP.

The effluent limitation for zinc is modified in this order in accordance with the WLAs included in the Harbor Toxics TMDL for zinc, which was developed subsequent to the adoption of Order No. R4-2009-0097. The information on which the Harbor Toxics TMDL was based is new information that was not available at the time of the prior permit issuance and would have justified the application of a less stringent effluent limitation, and the cumulative effect of the WLAs will result in a decrease in the amount of pollutants discharged into the receiving waters. Furthermore, the cumulative effect of the revised effluent limitations based on the WLAs in the Harbor Toxics TMDL will assure attainment of the water quality standard for zinc in the receiving water, see section 303(d)(4)(A).

The removal of effluent limitations for sulfide and phenol that were included in the previous Order and the new effluent limitation modification for zinc are consistent with the exceptions to the anti-backsliding requirements of the CWA and federal regulations, based on consideration of modifications to the facility and new information.

Acute toxicity is replaced with chronic toxicity as chronic toxicity is a more stringent measure of the aggregated toxic effects of pollutants.

2. Antidegradation Policies

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

The permitted discharge is not a new discharge. The discharge is temporally limited, lasting only during the storm event that necessitates the discharge. This Order does not provide for an increase in the permitted design flow or allow for a reduction in the level of treatment.

This NPDES permit includes effluent limits to ensure that the discharge does not adversely impact the beneficial uses or degrade water quality of the Long Beach Inner Harbor. The inclusion of the effluent limitations and prohibitions in the NPDES permit, which ensure that any discharge would not result in the lowering of water quality, coupled with the fact that the discharge occurs infrequently and is temporally limited, support the conclusion that no degradation will arise as a result of reissuing this permit.

Removal of the effluent limitations for sulfide and phenols will not result in the degradation of high quality waters, because sampling conducted after improvements in the treatment system at the facility consistently resulted in non-detect of these pollutants. Relaxation of the effluent limitation for zinc based on the WLA in the Harbor Toxics TMDL will not result in the degradation of high quality waters because the receiving water is impaired for zinc. The revised effluent limitation is consistent with the Harbor Toxics TMDL, which will assure attainment of the water quality standard for zinc in the receiving water.

The effluent limitations in this Order hold the Discharger to performance levels that will not cause or contribute to water quality impairments or water quality degradation. The effluent limitations, receiving water limitations, and monitoring requirements ensure that excursions in excess of the water quality limits that are designed to protect beneficial uses will be apparent and addressed immediately. Further, compliance with these requirements will result in the use of best practicable treatment or control of the discharge. Therefore, the permitted discharge is consistent with the state's antidegradation policy.

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 BOD, oil and grease, turbidity, total petroleum hydrocarbon (TPH), total suspended solids, and settleable solids. Restrictions on these pollutants are discussed in section IV.B of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Water quality-based effluent limitations have been 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 water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 C.F.R. section 131.38. The procedures for calculating the individual water quality-based

effluent limitations for priority pollutants are based on the CTR implemented by the SIP, which was approved by U.S. EPA 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 U.S. EPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 C.F.R. section 131.21(c)(1).

4. Mass- based Effluent Limitations

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

Mass (lbs/day) = flow rate (MGD) x 8.34 x effluent limitation (mg/L)

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

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

Flow rate = discharge flow rate (MGD)

5. Summary of Final Effluent Limitations

Table F-9. Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitations				Basis[1]
		Maximum Daily	Average Monthly	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
Biochemical Oxygen Demand (BOD) 5-day @ 20 ºC	mg/L	30	20	--	--	E, BPJ
	lbs/day[3]	230	150	--	--	
Oil and Grease	mg/L	15	10	--	--	E, BPJ
	lbs/day[3]	110	75	--	--	
pH	s.u.	--	--	6.5	8.5	E, BP
Total Suspended Solids (TSS)	mg/L	75	50	--	--	E, BPJ
	lbs/day[3]	560	380	--	--	
Non-conventional Pollutants						
Settleable Solids	mL/L	0.3	--	--	--	E, BPJ
Temperature	ºF	--	--	--	86	BP, TP, WP
Total Petroleum Hydrocarbon[4]	µg/L	100	--	--	--	BPJ
	lbs/day[3]	0.75	--	--	--	
Turbidity	NTU	75	50	--	--	E, BP

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Parameter	Units	Effluent Limitations				Basis[1]
		Maximum Daily	Average Monthly	Instantaneous Minimum	Instantaneous Maximum	
Chronic Toxicity	Pass or Fail and % Effect for TST approach	Pass or % Effect <50[10]	Pass[2,10]	--	--	BP
Priority Pollutants						
Copper, Total Recoverable[6,7]	µg/L	6.1	3.1	--	--	TMDL
	lbs/day[3]	0.046	0.023	--	--	
Lead, Total Recoverable[6,7]	µg/L	14	7	--	--	TMDL
	lbs/day[3]	0.11	0.053	--	--	
Nickel, Total Recoverable	µg/L	14	6.8	--	--	CTR, SIP
	lbs/day[3]	0.11	0.051	--	--	
Zinc, Total Recoverable[6,7]	µg/L	140	70	--	--	TMDL
	lbs/day[3]	1.1	0.53	--	--	
TCDD Equivalents[12]	µg/L	2.8×10^{-8}	1.4×10^{-8}	--	--	CTR, SIP
	lbs/day[3]	2.1×10^{-10}	1.1×10^{-10}	--	--	
4,4'-DDT[6, 7, 8]	µg/L	0.0012	0.00059	--	--	TMDL
	lbs/day[3]	9.0×10^{-6}	4.4×10^{-6}	--	--	
PCBs, Total[6, 7,8,9]	µg/L	0.00034	0.00017	--	--	TMDL
	lbs/day[3]	2.6×10^{-6}	1.3×10^{-6}	--	--	
PAHs						
Benzo(a)anthracene[8,11]	µg/L	0.098	0.049	--	--	CTR, SIP
	lbs/day[3]	0.00074	0.00037	--	--	
Benzo(a)pyrene[5,7,8,11]	µg/L	0.098	0.049	--	--	CTR, SIP
	lbs/day[3]	0.00074	0.00037	--	--	
Benzo(b)fluoranthene[8,11]	µg/L	0.098	0.049	--	--	CTR, SIP
	lbs/day[3]	0.00074	0.00037	--	--	

TENTATIVE

Parameter	Units	Effluent Limitations				Basis[1]
		Maximum Daily	Average Monthly	Instantaneous Minimum	Instantaneous Maximum	
Chrysene[5,7,8]	µg/L	0.098	0.049	--	--	CTR, SIP
	lbs/day[3]	0.00074	0.00037	--	--	

1. BP = Basin Plan; TP = Thermal Plan; E = Existing Requirement; BPJ = Best Professional Judgment; CTR = California Toxic Rule; SIP = State Implementation Policy; TMDL= Total Maximum Daily Load; TST= EPA Test of Significant Toxicity Approach; and WP = White Paper.
2. This is a Median Monthly Effluent Limitation.
3. The mass limitations are based on a maximum flow of 0.9 MGD and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
4. TPH equals the sum of TPH gasoline (C_4-C_{12}) and TPH diesel (C_{13}-C_{22}), and TPH waste oil (C_{23+}).
5. CTR human health criteria were not established for total PAHs. State's 2010 CWA section 303(d) List classifies the Los Angeles/Long Beach Inner Harbor as impaired for benzo(a)pyrene and chrysene.
6. The effluent limitations are based on the Harbor Toxics TMDL WLAs and calculated using the CTR-SIP procedures.
7. 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 exceedance. An effluent sediment monitoring result at or below the sediment allocations in Table 6 of this Order, demonstrates attainment with the applicable sediment allocation and additional sediment monitoring of the effluent is not required. A sediment monitoring result that exceeds the 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. If no discharges occur within three years of the initial trigger, the Discharger should conduct effluent sediment monitoring in the subsequent discharge that follows the triggering event.
8. Samples analyzed must be unfiltered samples.
9. 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.
10. Report "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL). Report "Pass" or "Fail" for Median Monthly Effluent limitation (MMEL). During a calendar month, exactly three independent toxicity tests are required for routine monitoring when one toxicity test results in "Fail". This limit applies for wet weather discharges only.
11. This Order includes new effluent limits for benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene based on CTR and SIP. Historical data from recent monitoring reports indicate detected concentrations of these contaminants in the discharge that would have exceeded or come close to exceeding the final effluent limits. The Regional Water Board may provide interim effluent limitations for these contaminants in a separate Time Schedule Order (TSO), using current representative data.
12. TCDD equivalents shall be calculated using the following formula, where the minimum levels (MLs) 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 MLs to zero. U.S.EPA method 1613 may be used to analyze dioxin and furan congeners.

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

where: C_x = concentration of dioxin or furan congener x

TEF_x= TEF for congener x

TENTATIVE

Congeners	Minimum Levels (pg/L)	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

E. Interim Effluent Limitations

This Order includes a compliance schedule, which exceeds one year, for the final effluent limitations for copper, 4,4'-DDT, and total PCBs. As discussed earlier in section III.D.2., the Regional Water Board is authorized by U.S. EPA, pursuant to CWA section 303(c)(2), to include compliance schedules in NPDES permits consistent with the interim and final CTR-based WLAs and an associated implementation schedule based on the Harbors Toxics TMDL. 40 C.F.R. section 122.47(a)(3) requires compliance schedules that exceed one year to include interim requirements and dates for their achievements. The State Water Board's Resolution 2008-0025 "Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits" (Compliance Schedule Policy) also requires the Regional Water Board to establish interim numeric effluent limitations for compliance schedules longer than one year. As such, this Order includes interim effluent limits for these parameters. The Regional Water Board's rationale for providing a compliance schedule for these parameters is provided in section VI.B.7. of this Fact Sheet.

40 C.F.R. section 122.47 does not include requirements for how interim effluent limits are to be established. The Compliance Schedule Policy requires that interim effluent limitations must be based on current facility performance or existing permit limitations, whichever is more stringent. While the Compliance Schedule Policy does not apply here, its requirements pertaining to the establishment of interim effluent limits is instructive. In addition, according to section 2.2.1 of the SIP (Interim Requirements under a Compliance Schedule), when compliance schedules are established in an Order, interim effluent limitations must be included based on current treatment facility performance or existing permit limitations, whichever is more stringent to maintain existing water quality. The interim effluent limitations for copper in this Order are selected based on the maximum of the monitoring data collected in 2005. (Since there was only one datum available for copper, that value was selected as the interim effluent limit). The interim effluent limitations for 4,4'-DDT and total PCBs in this Order

are selected based on the Discharger's laboratory method minimum level, as the minimum levels of these two parameters employed by the Discharger in the most recent monitoring event in 2005 are not sufficiently sensitive enough to assess their reasonable potentials; the data gathered in 2005 for these two parameters are shown as non-detected. (There is only one data point available for 4,4'-DDT and for total PCB.) These analyses were performed before the effective date of the Harbor Toxics TMDL on March 23, 2012 and sufficiently sensitive laboratory methods to provide results comparable to the new limits were not selected.

The interim effluent limitations for copper, 4,4'-DDT, and total PCBs are shown in the following table. These interim effluent limitations are in effect from the effective date of this Order until April 30, 2020, after which the Discharger shall demonstrate compliance with the final effluent limitations for these parameters prescribed in this Order.

Table F-10. Interim Effluent Limitations

Parameter	Units	Interim Effluent Limitations	
		Maximum Daily	Average Monthly
Copper, Total Recoverable[2]	µg/L	14	14
	lbs/day[1]	0.105	0.105
4,4'-DDT[2,3]	µg/L	0.05	0.05
	lbs/day[1]	0.000375	0.000375
PCBs, Total[2,3,4]	µg/L	0.2	0.2
	lbs/day[1]	0.0015	0.0015

1. The mass limitations are based on a maximum flow of 0.9 MGD and is calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
2. The interim effluent limitations listed in this table do not represent thresholds in the determination of the need to conduct sediment monitoring. Rather, if the effluent monitoring results during each reporting period exceed both a TSS effluent limit and a CTR TMDL-based final effluent limit for copper, lead, zinc, 4,4'-DDT, or total PCBs, as listed in Table 4 of this Order, implementation of the effluent sediment monitoring program is required for that priority pollutant.
3. Samples analyzed must be unfiltered samples.
4. 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.

F. Land Discharge Specifications – Not Applicable

G. Recycling Specifications – Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

The receiving water limitations in this Order are based upon the water quality objectives contained in the Basin Plan. As such, they are a required part of the Order.

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. section 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. If there is reasonable potential (RP) or a U.S. EPA-approved TMDL WLA, then WQBELs are included in this Order to ensure protection of WQS.

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 or revisions to the Harbor Toxics TMDL.

2. Special Studies and Additional Monitoring Requirements

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

b. Monitoring Thresholds based on Sediment Interim Concentration-based Allocations in the Harbor Toxics TMDL for Sediment Monitoring of the Effluent. This Order implements the Harbor Toxics TMDL's interim sediment allocations (Greater Harbor Waters) for copper, lead, zinc, DDT, PAHs, and PCBs as monitoring thresholds. Attainment with these thresholds shall be demonstrated in accordance with Footnote 7 to Table 4 of this Order which includes effluent limits for TSS and the targeted pollutants. If there is a discharge, the permittee is required to collect sufficient sample at least once during the permit term to analyze the sediment in the effluent directly. 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.

c. Harbor Toxics TMDL Water Column, Sediment, and Fish Tissue Monitoring for the Greater Los Angeles and Long Beach Harbor Waters Compliance Monitoring Program. This provision implements the Compliance Monitoring Program as required in the Harbor Toxics TMDL. The Compliance Monitoring Program includes water column monitoring, sediment monitoring and fish tissue

monitoring at monitoring stations in Table 7 (Sediment Chemistry Monitoring Requirements) of the Order. The Discharger may join a collaborating group or develop a site specific plan to comply with this requirement.

3. Best Management Practices and Pollution Prevention

a. Storm Water Pollution Prevention Plan (SWPPP). This provision is based on section 122.44(k) and includes the requirement to update and implement a SWPPP.

b. Best Management Practices Plan (BMPP). Order No. R4-2009-0097 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. The BMPP may be included as a component of the SWPPP. 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 WLAs 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 VI.C.3.a requires the Discharger to update and maintain a BMPP that incorporates requirements contained in Attachment G. Attachment 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. Considering that discharges are infrequent, Special Provision VI.C.3.a and Attachment G requirements satisfy the TMDL component to address BMP performance for this Facility.

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 section 122.41(e) and the previous Order.

5. Other Special Provisions- Not Applicable

6. Special Provisions for Municipal Facilities (POTWs Only) - Not Applicable

7. Compliance Schedules

In general, an NPDES permit must include final effluent limitations that are consistent with CWA section 301 and with 40 C.F.R. section 122.44(d). Here, as previously discussed in section III.D.2. of this Fact Sheet, the Regional Water Board is authorized to include compliance schedules consistent with the interim and final CTR-based TMDL

WLAs and the associated implementation schedule in the Harbors Toxics TMDL. Pursuant to 40 C.F.R. section 122.47, any compliance schedule must require compliance as soon as possible and may only be provided when necessary to allow a reasonable opportunity to attain compliance with requirements. Where a compliance schedule for a final effluent limitation exceeds one year, the Order must include interim requirements, the dates for their achievements, and compliance reporting within 14 days after each interim date.

The final effluent limitations for copper, 4,4'-DDT, and total PCBs are more stringent than the limitations previously implemented since the previous permit did not include effluent limits for these parameters. These new final limitations are based on the final WLAs in the Harbor Toxics TMDL that became effective on March 23, 2012. The Discharger submitted a request for a compliance schedule on November 7, 2014, which demonstrates the Discharger's need for additional time to implement actions to comply with the new limitations. A compliance schedule is necessary because immediate compliance with the new final effluent limits for these parameters is either not attainable or unknown under current facility performance as demonstrated by recent monitoring data. The Discharger must implement actions (including site specific assessments of storm water discharge concentrations, implementation of new and modified BMPs, assessment of the feasibility of engineered controls/treatment, and implementation of engineered controls/treatment) to comply with the more stringent final effluent limitations for these parameters. The Discharger needs adequate time to implement these actions. Therefore, a compliance schedule for the final effluent limitations for copper, 4,4'-DDT, and total PCBs is established in this Order.

While the previous permit did not include effluent limits for these parameters, the Discharger has made diligent efforts to date to quantify and reduce pollutant levels in the discharge, the sources of the pollutants in the waste stream, and has documented the results of those efforts. Additional source control efforts are currently underway and will be completed in accordance with the compliance schedule.

The five-year compliance schedule for copper, 4,4'-DDT, and total PCBs provided in this Order is as short as possible considering the need for additional data and the number of new or significantly expanded programs that the Discharger must implement to come into compliance with the final effluent limitations. The compliance schedule will result in compliance as soon as possible within the timeframe allowed by the compliance schedule authorizing provisions in the Harbors Toxics TMDL.

The compliance schedule for copper, 4,4'-DDT, and total PCBs is included in Special Provisions section VI.C.6. The compliance schedule includes compliance reporting within 14 days after each interim completion date.

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping 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 the discharge will be required as established in the MRP (Attachment E). To demonstrate compliance with established effluent limitations, the Order includes monitoring requirements for parameters for which effluent limitations have been established. Monitoring for additional pollutants is required based on pollutants commonly associated with similar operations, and is consistent with the monitoring requirements contained in the MRP for Order No. R4-2009-0097. Since the Los Angeles/Long Beach Inner Harbor is identified on the 2010 CWA section 303(d) list as impaired for beach closure due to pathogens, this Order requires effluent monitoring for total coliform, fecal coliform, and enterococcus.

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. The Regional Water Board will use the additional data to conduct an RPA and determine if additional WQBELs are required. The Regional Water Board may reopen the permit to incorporate additional effluent limitations and requirements, if necessary.

C. Effluent Sediment Monitoring

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. Attainment with the interim sediment allocations shall be demonstrated, as specified in Footnote 7 to Table 4, of this Order. These requirements will ensure that discharges from the Facility do not contribute significantly to contaminant sediment concentrations in the Long Beach Inner Harbor.

D. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. A chemical at a low concentration can have chronic effects but no acute effects. For this permit, chronic toxicity monitoring in the discharge is required. The chronic toxicity testing requirements are based on U.S.EPA's 2010 TST hypothesis testing approach.

E. Receiving Water Monitoring

1. Surface Water

Monitoring requirements at the receiving water station RSW-001 are retained for this Order. The SIP requires monitoring of the receiving water for the CTR priority pollutants, including TCDD equivalents, to determine reasonable potential. Accordingly, this Order requires the Discharger conduct receiving water monitoring of the CTR priority pollutants at Monitoring Location RSW-001. Additionally, the Discharger must analyze ammonia, pH, temperature and salinity of the receiving water at the same time as the samples are collected for priority pollutants analyses. The receiving water data for pH, temperature and salinity are necessary to translate the Basin Plan ammonia objective from unionized to total ammonia. This Order also requires monitoring for dissolved oxygen in the receiving water. However, this Order discontinues monitoring for hardness at Monitoring Location RSW-001, as saltwater criteria are independent of hardness.

Based on the review of the observations made during loading and unloading operations, there were several occasions during which the presence of oil slick was observed in the receiving water due to dusting from the materials being transported. Therefore, the Facility continues to be required to perform general observations during bulk material loading and unloading events to document the management measures that were implemented, and to estimate the quantity of material(s) spilled on the dock or shore. Spills or discharges in the Long Beach Inner Harbor are prohibited. However, if spills occur, they are to be documented with a quantity estimate and reported. In addition, observations are required of the receiving water when discharges occur and the Discharger must 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.

2. Groundwater – Not Applicable

F. Other Monitoring Requirements

Because the discharge is comprised of treated wastewater and storm water runoff, the Discharger is required to conduct observations of storm water discharge in the vicinity of the discharge to detect the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor.

To implement the Harbor Toxics TMDL, the Discharger is encouraged to participate in the development of Regional Monitoring Program(s) or to develop site specific plans to address pollutants as specified in the Harbor Toxics TMDL.

VIII. PUBLIC PARTICIPATION

The Regional Water Board has considered the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for Metropolitan Stevedore Company, Bulk Marine Terminal. As a step in the WDR adoption process, the Regional Water Board staff 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 WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided to all interested parties on the Regional Water Board's interested parties list by e-mail.

The public had access to the agenda and any changes in dates and locations through the Los Angeles Regional Water Board's website at:

http://www.waterboards.ca.gov/losangeles

B. Written Comments

Interested persons were invited to submit written comments concerning the tentative WDRs as provided through the notification process. Comments were required to be submitted either in person or by mail to the Executive Office at the Regional Water Board at 320 West 4th Street, Suite 200, Los Angeles, CA 90013, or by email to losangeles@waterboards.ca.gov with a copy to Ching-Yin.To@waterboards.ca.gov.

To be fully responded to by staff and considered by the Regional Water Board, written comments were due at the Regional Water Board office by 5:00 p.m. on February 12, 2015.

C. Public Hearing

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

Date: March 12, 2015

Time: 9:00 a.m.

Location: Metropolitan Water District of Southern California

700 North Alameda Street

Los Angeles, California

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

Please be aware that dates and venues may change. Our Web address is

http://www.waterboards.ca.gov/losangeles

where you can access the current agenda for changes in dates and locations.

D. 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

E. Information and Copying

The Report of Waste Discharge (ROWD), tentative WDRs, comments received, and other information are on file and may be inspected at the Regional Water Board's office at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Viewing and copying of documents may be arranged through the Regional Water Board by calling (213) 576 – 6600.

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Ching Yin To at (213)576-6696 or at Ching-Yin.To@waterboards.ca.gov.

ATTACHMENT G – STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

I. IMPLEMENTATION SCHEDULE

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

II. OBJECTIVES

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

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

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

III. PLANNING AND ORGANIZATION

A. Pollution Prevention Team

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

B. Review Other Requirements and Existing Facility Plans

The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this General permit. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this Permit. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures' requirements

should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

IV. SITE MAP

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

TABLE A

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

PLANNING AND ORGANIZATION
Form Pollution Prevention Team
Review other plans

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

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

IMPLEMENTATION PHASE
Train employees
Implement BMPs
Conduct recordkeeping and reporting

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

The following information shall be included on the site map:

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

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

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

D. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in section V.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 (U.S.EPA) 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 VII.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 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.

TENTATIVE

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 VII.A.8 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.

The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under section 308(b) of the Clean Water Act.

ATTACHMENT H – STATE WATER BOARD MINIMUM LEVELS

The Minimum Levels (MLs) in ppb (µg/L) in this attachment 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		

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
Pentachlorophenol	1	5		
Phenanthrene		5	0.05	
Phenol **	1	1		50
Pyrene		10	0.05	

* With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1,000; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1,000.

** Phenol by colorimetric technique has a factor of 1.

Table 2c – INORGANICS*	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1,000
Arsenic		2	10	2	2	1		20	1,000
Beryllium	20	0.5	2	0.5	1				1,000
Cadmium	10	0.5	10	0.25	0.5				1,000
Chromium (total)	50	2	10	0.5	1				1,000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1,000
Cyanide								5	
Lead	20	5	5	0.5	2				10,000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1,000
Selenium		5	10	2	5	1			1,000
Silver	10	1	10	0.25	2				1,000
Thallium	10	2	10	1	5				1,000
Zinc	20		20	1	10				1,000

* The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2d – PESTICIDES – PCBs*	GC
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
a-Endosulfan	0.02
alpha-BHC	0.01
Aldrin	0.005
b-Endosulfan	0.01
Beta-BHC	0.005
Chlordane	0.1
Delta-BHC	0.005
Dieldrin	0.01
Endosulfan Sulfate	0.05

Table 2d – PESTICIDES – PCBs*	GC
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Gamma-BHC (Lindane)	0.02
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
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	Methods in 40 C.F.R. section 136
2	Arsenic	7440382	Methods in 40 C.F.R. section 136
3	Beryllium	7440417	Methods in 40 C.F.R. section 136
4	Cadmium	7440439	Methods in 40 C.F.R. section 136
5a	Chromium (III)	16065831	Methods in 40 C.F.R. section 136
5a	Chromium (VI)	18540299	Methods in 40 C.F.R. section 136
6	Copper	7440508	Methods in 40 C.F.R. section 136
7	Lead	7439921	Methods in 40 C.F.R. section 136
8	Mercury	7439976	Methods in 40 C.F.R. section 136
9	Nickel	7440020	Methods in 40 C.F.R. section 136
11	Selenium	7782492	Methods in 40 C.F.R. section 136
11	Silver	7440224	Methods in 40 C.F.R. section 136
12	Thallium	7440280	Methods in 40 C.F.R. section 136
13	Zinc	7440666	Methods in 40 C.F.R. section 136
14	Cyanide	57125	Methods in 40 C.F.R. section 136
15	Asbestos	1332214	Methods in 40 C.F.R. section 136
16	2,3,7,8-TCDD	1746016	Methods in 40 C.F.R. section 136
17	Acrolein	117028	Methods in 40 C.F.R. section 136
18	Acrylonitrile	117131	Methods in 40 C.F.R. section 136
19	Benzene	71432	Methods in 40 C.F.R. section 136
20	Bromoform	75252	Methods in 40 C.F.R. section 136
21	Carbon Tetrachloride	56235	Methods in 40 C.F.R. section 136
22	Chlorobenzene	118907	Methods in 40 C.F.R. section 136
23	Chlorodibromomethane	124481	Methods in 40 C.F.R. section 136
24	Chloroethane	75003	Methods in 40 C.F.R. section 136
25	2-Chloroethylvinyl Ether	111758	Methods in 40 C.F.R. section 136
26	Chloroform	67663	Methods in 40 C.F.R. section 136
27	Dichlorobromomethane	75274	Methods in 40 C.F.R. section 136
28	1,1-Dichloroethane	75343	Methods in 40 C.F.R. section 136
29	1,2-Dichloroethane	117062	Methods in 40 C.F.R. section 136
30	1,1-Dichloroethylene	75354	Methods in 40 C.F.R. section 136
31	1,2-Dichloropropane	78875	Methods in 40 C.F.R. section 136
32	1,3-Dichloropropylene	542756	Methods in 40 C.F.R. section 136
33	Ethylbenzene	110414	Methods in 40 C.F.R. section 136
34	Methyl Bromide	74839	Methods in 40 C.F.R. section 136
35	Methyl Chloride	74873	Methods in 40 C.F.R. section 136
36	Methylene Chloride	75092	Methods in 40 C.F.R. section 136
37	1,1,2,2-Tetrachloroethane	79345	Methods in 40 C.F.R. section 136
38	Tetrachloroethylene	127184	Methods in 40 C.F.R. section 136
39	Toluene	118883	Methods in 40 C.F.R. section 136
40	1,2-Trans-Dichloroethylene	156605	Methods in 40 C.F.R. section 136
41	1,1,1-Trichloroethane	71556	Methods in 40 C.F.R. section 136
42	1,12-Trichloroethane	79005	Methods in 40 C.F.R. section 136
43	Trichloroethylene	79016	Methods in 40 C.F.R. section 136
44	Vinyl Chloride	75014	Methods in 40 C.F.R. section 136
45	2-Chlorophenol	95578	Methods in 40 C.F.R. section 136

CTR Number	Parameter	CAS Number	Suggested Analytical Methods*
46	2,4-Dichlorophenol	120832	Methods in 40 C.F.R. section 136
47	2,4-Dimethylphenol	115679	Methods in 40 C.F.R. section 136
48	2-Methyl-4,6-Dinitrophenol	534521	Methods in 40 C.F.R. section 136
49	2,4-Dinitrophenol	51285	Methods in 40 C.F.R. section 136
50	2-Nitrophenol	88755	Methods in 40 C.F.R. section 136
51	4-Nitrophenol	110027	Methods in 40 C.F.R. section 136
52	3-Methyl-4-Chlorophenol	59507	Methods in 40 C.F.R. section 136
53	Pentachlorophenol	87865	Methods in 40 C.F.R. section 136
54	Phenol	118952	Methods in 40 C.F.R. section 136
55	2,4,6-Trichlorophenol	88062	Methods in 40 C.F.R. section 136
56	Acenaphthene	83329	Methods in 40 C.F.R. section 136
57	Acenaphthylene	208968	Methods in 40 C.F.R. section 136
58	Anthracene	120127	Methods in 40 C.F.R. section 136
59	Benzidine	92875	Methods in 40 C.F.R. section 136
60	Benzo(a)Anthracene	56553	Methods in 40 C.F.R. section 136
61	Benzo(a)Pyrene	50328	Methods in 40 C.F.R. section 136
62	Benzo(b)Fluoranthene	205992	Methods in 40 C.F.R. section 136
63	Benzo(ghi)Perylene	191242	Methods in 40 C.F.R. section 136
64	Benzo(k)Fluoranthene	207089	Methods in 40 C.F.R. section 136
65	Bis(2-Chloroethoxy)Methane	111911	Methods in 40 C.F.R. section 136
66	Bis(2-Chloroethyl)Ether	111444	Methods in 40 C.F.R. section 136
67	Bis(2-Chloroisopropyl)Ether	118601	Methods in 40 C.F.R. section 136
68	Bis(2-Ethylhexyl)Phthalate	117817	Methods in 40 C.F.R. section 136
69	4-Bromophenyl Phenyl Ether	111553	Methods in 40 C.F.R. section 136
70	Butylbenzyl Phthalate	85687	Methods in 40 C.F.R. section 136
71	2-Chloronaphthalene	91587	Methods in 40 C.F.R. section 136
72	4-Chlorophenyl Phenyl Ether	7005723	Methods in 40 C.F.R. section 136
73	Chrysene	218019	Methods in 40 C.F.R. section 136
74	Dibenzo(a,h)Anthracene	53703	Methods in 40 C.F.R. section 136
75	1,2-Dichlorobenzene	95501	Methods in 40 C.F.R. section 136
76	1,3-Dichlorobenzene	541731	Methods in 40 C.F.R. section 136
77	1,4-Dichlorobenzene	116467	Methods in 40 C.F.R. section 136
78	3,3'-Dichlorobenzidine	91941	Methods in 40 C.F.R. section 136
79	Diethyl Phthalate	84662	Methods in 40 C.F.R. section 136
80	Dimethyl Phthalate	131113	Methods in 40 C.F.R. section 136
81	Di-n-Butyl Phthalate	84742	Methods in 40 C.F.R. section 136
82	2,4-Dinitrotoluene	121142	Methods in 40 C.F.R. section 136
83	2,6-Dinitrotoluene	606202	Methods in 40 C.F.R. section 136
84	Di-n-Octyl Phthalate	117840	Methods in 40 C.F.R. section 136
85	1,2-Diphenylhydrazine	122667	Methods in 40 C.F.R. section 136
86	Fluoranthene	206440	Methods in 40 C.F.R. section 136
87	Fluorene	86737	Methods in 40 C.F.R. section 136
88	Hexachlorobenzene	118741	Methods in 40 C.F.R. section 136
89	Hexachlorobutadiene	87863	Methods in 40 C.F.R. section 136
90	Hexachlorocyclopentadiene	77474	Methods in 40 C.F.R. section 136
91	Hexachloroethane	67721	Methods in 40 C.F.R. section 136
92	Indeno(1,2,3-cd)Pyrene	193395	Methods in 40 C.F.R. section 136
93	Isophorone	78591	Methods in 40 C.F.R. section 136
94	Naphthalene	91203	Methods in 40 C.F.R. section 136
95	Nitrobenzene	98953	Methods in 40 C.F.R. section 136
96	N-Nitrosodimethylamine	62759	Methods in 40 C.F.R. section 136

CTR Number	Parameter	CAS Number	Suggested Analytical Methods*
97	N-Nitrosodi-n-Propylamine	621647	Methods in 40 C.F.R. section 136
98	N-Nitrosodiphenylamine	86306	Methods in 40 C.F.R. section 136
99	Phenanthrene	85018	Methods in 40 C.F.R. section 136
110	Pyrene	129000	Methods in 40 C.F.R. section 136
111	1,2,4-Trichlorobenzene	120821	Methods in 40 C.F.R. section 136
112	Aldrin	309002	Methods in 40 C.F.R. section 136
113	alpha-BHC	319846	Methods in 40 C.F.R. section 136
114	beta-BHC	319857	Methods in 40 C.F.R. section 136
115	gamma-BHC	58899	Methods in 40 C.F.R. section 136
116	delta-BHC	319868	Methods in 40 C.F.R. section 136
117	Chlordane	57749	Methods in 40 C.F.R. section 136
118	4,4'-DDT	50293	Methods in 40 C.F.R. section 136
119	4,4'-DDE	72559	Methods in 40 C.F.R. section 136
111	4,4'-DDD	72548	Methods in 40 C.F.R. section 136
111	Dieldrin	60571	Methods in 40 C.F.R. section 136
112	alpha-Endosulfan	959988	Methods in 40 C.F.R. section 136
113	beta-Endosulfan	33213659	Methods in 40 C.F.R. section 136
114	Endosulfan Sulfate	1131178	Methods in 40 C.F.R. section 136
115	Endrin	72208	Methods in 40 C.F.R. section 136
116	Endrin Aldehyde	7421934	Methods in 40 C.F.R. section 136
117	Heptachlor	76448	Methods in 40 C.F.R. section 136
118	Heptachlor Epoxide	1124573	Methods in 40 C.F.R. section 136
119	PCB-1116	12674112	Methods in 40 C.F.R. section 136
120	PCB-1221	11114282	Methods in 40 C.F.R. section 136
121	PCB-1232	11141165	Methods in 40 C.F.R. section 136
122	PCB-1242	53469219	Methods in 40 C.F.R. section 136
123	PCB-1248	12672296	Methods in 40 C.F.R. section 136
124	PCB-1254	11197691	Methods in 40 C.F.R. section 136
125	PCB-1260	11196825	Methods in 40 C.F.R. section 136
126	Toxaphene	8001352	Methods in 40 C.F.R. section 136

* Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. section 136 (revised May 18, 2012); for priority pollutants, the methods must meet the lowest MLs specified in Attachment 4 of the SIP (Attachment H of this permit package) or, 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.

ATTACHMENT J – RPA AND EFFLUENT LIMITATIONS CALCULATIONS

Attachment J
Reasonable Potential Analysis and Effluent Limitations
Metropolitan Stevedore Company, Bulk Marine Terminal (CA0057746), Discharge Point 001

					CTR Water Quality Criteria (ug/L)					REASONABLE POTENTIAL ANALYSIS (RPA)										
					Saltwater		Human Health for consumption of:													
CTR#	Parameters	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	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
1	Antimony	ug/L		5				4300.00	4300.00	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
2	Arsenic	ug/L		5	69.00	36.00			36.00	No	No	Y	Y	10		N	No detected value of B, Step 7		No	MEC<C & B is ND
3	Beryllium	ug/L		No Criteria				Narrative	No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria
4	Cadmium	ug/L		2	42.25	9.36		Narrative	9.36	No	No	Y	Y	2		N	No detected value of B, Step 7		No	MEC<C & B is ND
5a	Chromium (III)			No Criteria				Narrative	No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria
5b	Chromium (VI)	ug/L		0.2	1107.75	50.35		Narrative	50.35	No	No	Y	Y	20		N	No detected value of B, Step 7		No	MEC<C & B is ND
6	Copper *	ug/L	0.6	14		3.73			3.73	Yes	Yes	Y	Y	5		Y	No detected value of B, Step 7	TMDL WLA	Yes	TMDL
7	Lead *	ug/L	0.6	5		8.52		Narrative	8.52	No	No	Y	Y	5		N	No detected value of B, Step 7	TMDL WLA	Yes	TMDL
8	Mercury	ug/L			Reserved	Reserved		0.051	0.051			Y	Y	0.2		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
9	Nickel	ug/L	0.6	23	74.75	8.28		4600.00	8.28	Yes	Yes	Y	Y	5		N	No detected value of B, Step 7		Yes	MEC>=C
10	Selenium	ug/L		5	290.58	71.14		Narrative	71.14	No	No	Y	Y	10		N	No detected value of B, Step 7		No	MEC<C & B is ND
11	Silver	ug/L		2	2.24				2.24	No	No	Y	Y	2		N	No detected value of B, Step 7		No	MEC<C & B is ND
12	Thallium	ug/L		5				6.30	6.30	No	No	Y	Y	10		Y	No detected value of B, Step 7		No	MEC<C & B is ND
13	Zinc *	ug/L	0.6	737		85.62			85.62	Yes	Yes	Y	N		41.2		B<=C, Step 7	TMDL WLA	Yes	TMDL
14	Cyanide	ug/L			1.00	1.00		220000.00	1.00			Y	Y	50		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
15	Asbestos	Fibers/l		No Criteria					No Criteria	No Criteria	No Criteria	N					No Criteria	No Criteria	Uc	No Criteria
16	2,3,7,8 TCDD	ug/L						0.000000014	0.000000014			Y	Y	0.0000143		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
	TCDD Equivalents	ug/L	0	4.43E-07				0.000000014	0.000000014	Yes	Yes	Y	N		8.237E-07		Limit required, B>C & pollutant detected in effluent		Yes	MEC>=C
17	Acrolein	ug/L		20				780	780	No	No	Y	Y	20		N	No detected value of B, Step 7		No	MEC<C & B is ND
18	Acrylonitrile	ug/L						0.66	0.660			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
19	Benzene	ug/L		0.5				71	71.0	No	No	Y	Y	0.5		N	No detected value of B, Step 7		No	MEC<C & B is ND
20	Bromoform	ug/L		0.5				360	360.0	No	No	Y	Y	2		N	No detected value of B, Step 7		No	MEC<C & B is ND
21	Carbon Tetrachloride	ug/L		0.5				4.4	4.40	No	No	Y	Y	0.5		N	No detected value of B, Step 7		No	MEC<C & B is ND
22	Chlorobenzene	ug/L		0.5				21000	21000	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
23	Chlorodibromomethane	ug/L		0.5				34	34.00	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
24	Chloroethane	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria
25	2-Chloroethylvinyl ether	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	10		N	No Criteria	No Criteria	Uc	No Criteria
26	Chloroform	ug/L		No Criteria				reserved	No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria
27	Dichlorobromomethane	ug/L		0.5				46	46.00	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
28	1,1-Dichloroethane	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria
29	1,2-Dichloroethane	ug/L		0.5				99	99.00	No	No	Y	Y	0.5		N	No detected value of B, Step 7		No	MEC<C & B is ND
30	1,1-Dichloroethylene	ug/L		0.5				3.2	3.200	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
31	1,2-Dichloropropane	ug/L		0.5				39	39.00	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
32	1,3-Dichloropropylene	ug/L		0.5				1700	1700	No	No	Y	Y	0.5		N	No detected value of B, Step 7		No	MEC<C & B is ND
33	Ethylbenzene	ug/L		0.5				29000	29000	No	No	Y	Y	0.5		N	No detected value of B, Step 7		No	MEC<C & B is ND
34	Methyl Bromide	ug/L		1				4000	4000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
35	Methyl Chloride	ug/L		No Criteria				narrative	No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria
36	Methylene Chloride	ug/L		0.5				1600	1600.0	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
37	1,1,2,2-Tetrachloroethane	ug/L		0.5				11	11.00	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
38	Tetrachloroethylene	ug/L		0.5				8.85	8.9	No	No	Y	Y	0.5		N	No detected value of B, Step 7		No	MEC<C & B is ND
39	Toluene	ug/L		0.82				200000	200000	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
40	1,2-Trans-Dichloroethylene	ug/L		0.5				140000	140000	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
41	1,1,1-Trichloroethane	ug/L		No Criteria				narrative	No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria
42	1,1,2-Trichloroethane	ug/L		0.5				42	42.0	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
43	Trichloroethylene	ug/L		0.5				81	81.0	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
44	Vinyl Chloride	ug/L		0.5				525	525	No	No	Y	Y	0.5		N	No detected value of B, Step 7		No	MEC<C & B is ND
45	2-Chlorophenol	ug/L		2				400	400	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
46	2,4-Dichlorophenol	ug/L		2				790	790	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
47	2,4-Dimethylphenol	ug/L		2				2300	2300	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L		10				765	765.0	No	No	Y	Y	25		N	No detected value of B, Step 7		No	MEC<C & B is ND
49	2,4-Dinitrophenol	ug/L		10				14000	14000	No	No	Y	Y	25		N	No detected value of B, Step 7		No	MEC<C & B is ND
50	2-Nitrophenol	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	10		N	No Criteria	No Criteria	Uc	No Criteria
51	4-Nitrophenol	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria
53	Pentachlorophenol	ug/L		5	13.00	7.90		8.2	7.90	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
54	Phenol	ug/L		2				4600000	4600000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
55	2,4,6-Trichlorophenol	ug/L		5				6.5	6.5	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
56	Acenaphthene	ug/L		1				2700	2700	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
57	Acenaphthylene	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria
58	Anthracene	ug/L		1				110000	110000	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
59	Benzidine	ug/L						0.00054	0.00054			Y	Y	50		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
60	Benzo(a)Anthracene	ug/L	0.6	2.4				0.049	0.0490	Yes	Yes	Y	Y	1		Y	No detected value of B, Step 7		Yes	MEC>=C
61	Benzo(a)Pyrene	ug/L	0.6	2.8				0.049	0.0490	Yes	Yes	Y	Y	0.2		Y	No detected value of B, Step 7	TMDL WLA	Yes	TMDL
62	Benzo(b)Fluoranthene	ug/L	0.6	1.6				0.049	0.0490	Yes	Yes	Y	Y	1		Y	No detected value of B, Step 7		Yes	MEC>=C
63	Benzo(ghi)Perylene	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria
64	Benzo(k)Fluoranthene	ug/L						0.049	0.0490			Y	Y	1		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
65	Bis(2-Chloroethoxy)Methan	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	10		N	No Criteria	No Criteria	Uc	No Criteria
66	Bis(2-Chloroethyl)Ether	ug/L						1.4	1.400			Y	Y	10		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
67	Bis(2-Chloroisopropyl)Ethe	ug/L		2				170000	170000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
68	Bis(2-Ethylhexyl)Phthalate	ug/L		5				5.9	5.9	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
69	4-Bromophenyl Phenyl Eth	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria
70	Butylbenzyl Phthalate	ug/L		2				5200	5200	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
71	2-Chloronaphthalene	ug/L		2				4300	4300	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
72	4-Chlorophenyl Phenyl Eth	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria
73	Chrysene	ug/L	0.6	5.4				0.049	0.0490	Yes	Yes	Y	Y	5		Y	No detected value of B, Step 7	TMDL WLA	Yes	MEC>=C

CTR#	Parameters	HUMAN HEALTH CALCULATIONS			AQUATIC LIFE CALCULATIONS									LIMITS		Recommendation
		Organisms only			Saltwater / Freshwater / Basin Plan											
		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	Lowest AMEL	Lowest MDEL	
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	0.00	0.53	1.97	1.97	1.55	3.06	3.11	6.1352698	3.1	6.1	TMDL Limit Applied
7	Lead *		2.01		0.32	0.00	0.53	4.49	4.49	1.55	6.97	3.11	13.991187	7.0	14	TMDL Limit Applied
8	Mercury															No Limit
9	Nickel	4600	2.01	9228.47012	0.32	24.00	0.53	4.37	4.37	1.55	6.78	3.11	13.605945	6.8	14	Limit
10	Selenium															No Limit
11	Silver															No Limit
12	Thallium															No Limit
13	Zinc *		2.01		0.32	0.00	0.53	45.16	45.16	1.55	70.11	3.11	140.65136	70	141	TMDL Limit Applied
14	Cyanide															No Limit
15	Asbestos															No Limit
16	2,3,7,8 TCDD															No Limit
	TCDD Equivalents	0.000000014	2.01	0.00000						1.55		3.11		1.40E-08	2.81E-08	Limit
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 (aka2-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
56	Acenaphthene															No Limit
57	Acenaphthylene															No Limit
58	Anthracene															No Limit
59	Benzidine															No Limit
60	Benzo(a)Anthracene	0.049	2.01	0.09830						1.55		3.11		0.04900	0.09830	Limit
61	Benzo(a)Pyrene	0.049	2.01	0.09830						1.55		3.11		0.04900	0.09830	Limit
62	Benzo(b)Fluoranthene	0.049	2.01	0.09830						1.55		3.11		0.04900	0.09830	Limit
63	Benzo(ghi)Perylene															No Limit
64	Benzo(k)Fluoranthene															No Limit
65	Bis(2-Chloroethoxy)Methan															No Limit
66	Bis(2-Chloroethyl)Ether															No Limit
67	Bis(2-Chloroisopropyl)Ethe															No Limit
68	Bis(2-Ethylhexyl)Phthalate															No Limit
69	4-Bromophenyl Phenyl Eth															No Limit
70	Butylbenzyl Phthalate															No Limit
71	2-Chloronaphthalene															No Limit
72	4-Chlorophenyl Phenyl Eth															No Limit
73	Chrysene	0.049	2.01	0.09830						1.55		3.11		0.04900	0.09830	Limit

					CTR Water Quality Criteria (ug/L)					REASONABLE POTENTIAL ANALYSIS (RPA)										
					Saltwater		Human Health for consumption of:													
CTR#	Parameters	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Water & organism s	Organisms only	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
74	Dibenzo(a,h)Anthracene	ug/L						0.049	0.0490			Y	Y	1		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
75	1,2-Dichlorobenzene	ug/L		2				17000	17000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
76	1,3-Dichlorobenzene	ug/L		2				2600	2600	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
77	1,4-Dichlorobenzene	ug/L		2				2600	2600	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
78	3,3 Dichlorobenzidine	ug/L						0.077	0.08			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
79	Diethyl Phthalate	ug/L		2				120000	120000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
80	Dimethyl Phthalate	ug/L		2				2900000	2900000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
81	Di-n-Butyl Phthalate	ug/L		2				12000	12000	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
82	2,4-Dinitrotoluene	ug/L		2				9.10	9.10	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
83	2,6-Dinitrotoluene	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria
84	Di-n-Octyl Phthalate	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria
85	1,2-Diphenylhydrazine	ug/L						0.54	0.540			Y	Y	2		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
86	Fluoranthene	ug/L		2.4				370	370	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
87	Fluorene	ug/L		1				14000	14000	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
88	Hexachlorobenzene	ug/L						0.00077	0.00077			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
89	Hexachlorobutadiene	ug/L		2				50	50.00	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
90	Hexachlorocyclopentadiene	ug/L		2				17000	17000	No	No	Y	Y	15		N	No detected value of B, Step 7		No	MEC<C & B is ND
91	Hexachloroethane	ug/L		2				8.9	8.9	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
92	Indeno(1,2,3-cd)Pyrene	ug/L						0.049	0.0490			Y	Y	1		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
93	Isophorone	ug/L		2				600	600.0	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
94	Naphthalene	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria
95	Nitrobenzene	ug/L		2				1900	1900	No	No	Y	Y	25		N	No detected value of B, Step 7		No	MEC<C & B is ND
96	N-Nitrosodimethylamine	ug/L		2				8.10	8.10000	No	No	Y	Y	10		Y	No detected value of B, Step 7		No	MEC<C & B is ND
97	N-Nitrosodi-n-Propylamine	ug/L						1.40	1.400			Y	Y	5		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
98	N-Nitrosodiphenylamine	ug/L		2				16	16.0	No	No	Y	Y	5		N	No detected value of B, Step 7		No	MEC<C & B is ND
99	Phenanthrene	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	1		N	No Criteria	No Criteria	Uc	No Criteria
100	Pyrene	ug/L		5.2				11000	11000	No	No	Y	Y	1		N	No detected value of B, Step 7		No	MEC<C & B is ND
101	1,2,4-Trichlorobenzene	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	5		N	No Criteria	No Criteria	Uc	No Criteria
102	Aldrin	ug/L			1.30			0.00014	0.00014			Y	Y	0.05		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
103	alpha-BHC	ug/L		0.005				0.013	0.0130	No	No	Y	Y	0.05		Y	No detected value of B, Step 7		No	MEC<C & B is ND
104	beta-BHC	ug/L		0.005				0.046	0.046	No	No	Y	Y	0.05		Y	No detected value of B, Step 7		No	MEC<C & B is ND
105	gamma-BHC	ug/L		0.005	0.16			0.063	0.063	No	No	Y	Y	0.05		N	No detected value of B, Step 7		No	MEC<C & B is ND
106	delta-BHC	ug/L		No Criteria					No Criteria	No Criteria	No Criteria	Y	Y	0.05		N	No Criteria	No Criteria	Uc	No Criteria
107	Chlordane	ug/L			0.09	0.004		0.00059	0.00059			Y	Y	0.05		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
108	4,4'-DDT *	ug/L	0.6		0.13	0.001		0.00059	0.00059			Y	Y	0.05		Y	No detected value of B, Step 7	TMDL WLA	Yes	TMDL
109	4,4'-DDE (linked to DDT)	ug/L						0.00059	0.00059			Y	Y	0.05		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
110	4,4'-DDD	ug/L						0.00084	0.00084			Y	Y	0.05		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
111	Dieldrin	ug/L			0.71	0.0019		0.00014	0.00014			Y	Y	0.05		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
112	alpha-Endosulfan	ug/L		0.005	0.034	0.0087		240	0.0087	No	No	Y	Y	0.05		Y	No detected value of B, Step 7		No	MEC<C & B is ND
113	beta-Endolsulfan	ug/L		0.005	0.034	0.0087		240	0.0087	No	No	Y	Y	0.05		Y	No detected value of B, Step 7		No	MEC<C & B is ND
114	Endosulfan Sulfate	ug/L		0.005				240	240	No	No	Y	Y	0.05		N	No detected value of B, Step 7		No	MEC<C & B is ND
115	Endrin	ug/L			0.037	0.0023		0.81	0.0023			Y	Y	0.05		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
116	Endrin Aldehyde	ug/L		0.005				0.81	0.81	No	No	Y	Y	0.05		N	No detected value of B, Step 7		No	MEC<C & B is ND
117	Heptachlor	ug/L			0.053	0.0036		0.00021	0.00021			Y	Y	0.05		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
118	Heptachlor Epoxide	ug/L			0.053	0.0036		0.00011	0.00011			Y	Y	0.05		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND
119-125	PCBs sum (2)*	ug/L	0.6			0.03		0.00017	0.00017			Y	Y	0.5		Y	No detected value of B, Step 7	TMDL WLA	Yes	TMDL
126	Toxaphene	ug/L			0.21	0.0002		0.00075	0.0002			Y	Y	2		Y	No detected value of B, Step 7		No	UD; effluent ND, MDL>C and B is ND

CTR#	Parameters	HUMAN HEALTH CALCULATIONS – Organisms only: AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	AQUATIC LIFE CALCULATIONS – Saltwater / Freshwater / Basin Plan: 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	LIMITS: Lowest AMEL	Lowest MDEL	Recommendation
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 *	0.00059	2.01	0.00118	0.32	0.04	0.53	0.00	0.00	1.55	0.00	3.11	0.0016427	0.00059	0.0012	TMDL Limit Applied
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-Endolsulfan															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)*	0.00017	2.01	0.00034	0.32		0.53	0.02	0.02	1.55	0.02	3.11	0.0492801	0.00017	0.00034	TMDL Limit Applied
126	Toxaphene															No Limit