CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
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Los Angeles Regional Water Quality Control Board
(http://www.waterboards.ca.gov/losangeles)

WATER QUALITY ORDER R4-2022-0159
NPDES NUMBER CA0001171, CI NUMBER 5764

WASTE DISCHARGE REQUIREMENTS
FOR LONG BEACH GENERATION, LLC, LONG BEACH GENERATING STATION

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

Table 1. Discharger Information

Discharger:	Long Beach Generation, LLC
Name of Facility:	Long Beach Generating Station
Facility Address:	2665 Pier S Lane Long Beach, CA 90802 Los Angeles County

Table 2. Discharge Locations

Discharge Point	Effluent Description	Discharge Point Latitude (North-South)	Discharge Point Longitude (East-West)	Receiving Water
001	Groundwater, stormwater, and intermittent low-volume wastewater	33.764722°	-118.221389º	Long Beach Inner Harbor

Table 3. Administrative Information

This Order was adopted on:	**April 14, 2022**
This Order shall become effective on:	**June 1, 2022**
This Order shall expire on:	**May 31, 2027**
The Discharger shall file a Report of Waste Discharge (ROWD) as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a NPDES permit no later than:	**180 days prior to the Order expiration date**
The United States Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board have classified this discharge as follows:	**Minor**

I, Renee Purdy, 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 **the date indicated above**.

R Purdy

Digitally signed by R Purdy
Date: 2022.05.13 08:59:24 -07'00'

Water Boards

Renee Purdy, Executive Officer

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1. FACILITY INFORMATION

Information describing the Long Beach Generating Station (Facility) is summarized on the cover page and in sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the Facility's permit application.

2. FINDINGS

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

2.1. **Legal Authorities.** This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the 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 United States 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 authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

2.2. **Background and Rationale for Requirements.** The Los Angeles 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 are also incorporated into this Order.

2.3. **Notification of Interested Parties.** The Los Angeles 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.

2.4. **Consideration of Public Comment.** The Los Angeles 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 Number R4-2016-0121 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 shall comply with the requirements in this Order. This action in no way prevents the Los Angeles Water Board from taking enforcement action for violations of the previous Order.

3. DISCHARGE PROHIBITIONS

3.1. Wastes discharged shall be limited to a maximum of 4.3 million gallons per day (MGD) through Discharge Point 001 of commingled wastewater including groundwater from dewatering systems, stormwater runoff, and intermittent low volume industrial

wastewater from the Facility. The discharge of wastes from accidental spills or other sources is prohibited.

3.2. The discharge of treated wastewater at a location different from that described in this Order is prohibited.

3.3. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to a storm drain system, the Long Beach Inner Harbor, or other waters of the State and United States, are prohibited.

3.4. The treatment or the discharge of pollutants shall not cause pollution, contamination, or a nuisance as defined by section 13050, subdivisions (k), (l) and (m), of the Water Code.

3.5. The discharge of any substances in concentrations toxic to human, animal, plant, or aquatic life is prohibited.

3.6. The bypass of any portion of the treatment system or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited, except as allowed in Standard Provision 1.7. of Attachment D, Standard Provisions.

3.7. Discharge of oil or any residuary product of petroleum to waters of the State, except in accordance with this Order or other provisions of division 7 of the Water Code, is prohibited.

3.8. The discharge of any radiological, chemical, or biological warfare agent into the waters of the state is prohibited under Water Code section 13375.

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

3.10. 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 Order.

3.11. The discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State is prohibited.

4. EFFLUENT LIMITATIONS

4.1. Effluent Limitations – Discharge Point 001

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

Table 4. Effluent Limitations

Parameter	Units	Average Monthly	Maximum Daily	Performance Goals	Notes
Biochemical Oxygen Demand (BOD_5 @ 20ºC)	mg/L	20	30	--	--
BOD_5 @ 20ºC	lbs/day	710	1,100	--	a
Oil and Grease	mg/L	10	15	--	--
Oil and Grease	lbs/day	360	540	--	a
pH	pH units	--	6.5 Min 8.5 Max	--	b
Total Suspended Solids (TSS)	mg/L	50	75	--	--
TSS	lbs/day	1,800	2,700	--	a
Settleable Solids	mL/L	0.1	0.3	--	--
Turbidity	NTU	50	75	--	--
Temperature	°F	--	86	--	c
Ammonia Nitrogen, Total (as N)	mg/L	0.73	1.8	--	--
Ammonia Nitrogen, Total (as N)	lbs/day	26	65	--	--
Total Residual Chlorine	mg/L	--	0.1	--	d
Chronic Toxicity	Pass or Fail, % Effect	Pass	Pass or % Effect <50	--	e
Copper, Total Recoverable (TR)	µg/L	1.6	5.5	--	f
Copper, TR	lbs/day	0.057	0.20	--	a & f
Lead, TR	µg/L	4.2	13.6	--	f
Lead, TR	lbs/day	0.15	0.49	--	a & f
Mercury, TR	µg/L	0.004	0.004	--	g
Mercury TR	lbs/day	0.00014	0.00014	--	a & g
Nickel, TR	µg/L	2.9	10.7	--	g
Nickel, TR	lbs/day	0.11	0.38	--	a & g
Zinc, TR	µg/L	42	136	--	f
Zinc, TR	lbs/day	1.5	4.9	--	a & f
Cyanide	µg/L	0.5	1.0	--	g
Cyanide	lbs/day	0.018	0.036	--	a & g
TCDD-Equivalents	µg/L	1.4×10^{-8}	2.8×10^{-8}	--	g & h

Parameter	Units	Average Monthly	Maximum Daily	Performance Goals	Notes
TCDD-Equivalents	lbs/day	5.0×10^{-10}	1.0×10^{-9}	--	a, g & h
4,4'-DDT	µg/L	0.00059	0.0012	--	f & i
4,4'-DDT	lbs/day	2.1×10^{-5}	4.3×10^{-5}	--	a, f & i
Alpha-Endosulfan	µg/L	0.007	0.014	--	g
Alpha-Endosulfan	lbs/day	0.00025	0.0005	--	a & g
PCBs	µg/L	0.00017	0.00034	--	f, i & j
PCBs	lbs/day	6.1×10^{-6}	1.2×10^{-5}	--	a, f, i & j
Benzo(a)pyrene	µg/L	--	--	0.049	h, i, k & l
Benzo(a)anthracene	µg/L	--	--	0.049	h, i, k & l
Chrysene	µg/L	--	--	0.049	h, i, k & l

Footnotes for Table 4

a. The mass-based effluent limitations are based on the permitted flow rate of 4.3 MGD applicable at Discharge Point 001 and are calculated as follows:
   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day
b. The effluent limitations for pH are 6.5 as an instantaneous minimum and 8.5 as an instantaneous maximum.
c. The effluent limitation for Temperature is 86 °F as an instantaneous maximum.
d. The effluent limitation for Total Residual Chlorine is 0.1 mg/l as an instantaneous maximum.
e. The average monthly is a Median Monthly Effluent Limitation (MMEL), and the MMEL shall be reported as "Pass" or "Fail." The Maximum Daily Effluent Limitation (MDEL) shall be reported as "Pass" or "Fail" and "% Effect." During a calendar month, up to three independent toxicity tests are required for routine monitoring when one toxicity test results in "Fail".
f. 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 PCB's, benzo(a)pyrene, benzo(a)anthracene, or chrysene, implementation of the effluent sediment monitoring program is required for that priority pollutant. The effluent sediment monitoring shall begin during the next regular monitoring event following the effluent exceedance. An effluent sediment monitoring result at or below the interim event following the effluent exceedance. An effluent sediment monitoring result at or below the interim sediment allocations (Monitoring Thresholds) in Table 5 of this Order, demonstrates attainment with the applicable sediment allocation and additional sediment monitoring of the effluent is not required. An effluent sediment monitoring result that exceeds the interim sediment allocation requires additional sediment monitoring of the effluent during discharge but not more frequently than once per year until the three-year average concentration for sediment monitoring results is at or below the interim sediment allocation.
g. The effluent limitation is based on CTR saltwater criteria and calculated using CTR-SIP procedures.
h. TCDD equivalents shall be calculated using the following formula, where the minimum levels (ML), and toxicity equivalency factors (TEFs) are as listed in the Table below. The

Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

i. Dioxin-TEQ (TCDD)Equivalents) = $\sum(C_x \times TEF_x)$

Where,

ii. C_X = concentration of dioxin or furan congener x

iii. TEF_X = TEF for congener x

Toxicity Equivalency Factors for 2,3,7,8-TCDD Equivalents

Congeners	Toxicity Equivalency Factors
2,3,7,8 - tetra CDD	1.0
1,2,3,7,8 - penta CDD	1.0
1,2,3,4,7,8 - hexa CDD	0.1
1,2,3,6,7,8 - hexa CDD	0.1
1,2,3,7,8,9 - hexa CDD	0.1
1,2,3,4,6,7,8 - hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8 - tetra CDF	0.1
1,2,3,7,8 - penta CDF	0.05
2,3,4,7,8 - penta CDF	0.5
1,2,3,4,7,8 - hexa CDF	0.1
1,2,3,6,7,8 - hexa CDF	0.1
1,2,3,7,8,9 - hexa CDF	0.1
2,3,4,6,7,8 - hexa CDF	0.1
1,2,3,4,6,7,8 - hepta CDFs	0.01
1,2,3,4,7,8,9 - hepta CDFs	0.01
Octa CDF	0.0001

i. Samples analyzed must be unfiltered samples.

j. 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.

k. Performance Goals are intended to ensure that effluent concentrations and mass discharges do not exceed levels currently achieved by the permitted facility that are protective of water quality. These performance goals are not considered as limitations or standards for the regulation of the facility. They act as triggers to determine when effluent sediment monitoring is required for this category of pollutants.

l. CTR human health criteria were not established for total PAHs. Therefore, the performance goals are based on the CTR human health criteria for the individual PAHs; benzo(a)pyrene, benzo(a)anthracene, and chrysene. The benzo(a)pyrene and chrysene were selected because the State's 2010 303(d) List classifies the Los Angeles/Long Beach Inner Harbor as impaired for these PAH compounds. Benzo(a)anthracene was selected because it is

included as an organic marine sediment target and as a receiving salt water column concentration-based waste load allocation (WLA) as an individual PAH as part of total PAH in the TMDL for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters.

End of Footnotes for Table 4

4.2. Land Discharge Specifications – Not Applicable

4.3. Recycling Specifications – Not Applicable

5. RECEIVING WATER LIMITATIONS

5.1. Surface Water Limitations

Receiving water limitations are based on the water quality objectives in the Basin Plan. The discharge shall not cause the following in the Long Beach Inner Harbor:

5.1.1. The pH of the receiving water shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels to be changed more than 0.2 units from natural conditions as a result of waste discharge.

5.1.2. At no time shall the temperature be raised above 86 ºF as a result of waste discharges.

5.1.3. Bacteria Water Quality Objective

a. Water Contact Recreation (REC-1): The *Enterococci* bacteria levels in the receiving water shall not exceed the following water quality objectives, because of wastes discharged:

i. Geometric Mean (six-week rolling) Limits: *Enterococci* shall not exceed 30 colony forming units (CFU) per 100 milliliters (mL) or most probable number (MPN) per 100 mL (MPN/100 mL), calculated weekly.

ii. Statistical Threshold Value (STV): *Enterococci* STV of 110 CFU/100 mL or MPN/100 mL shall not be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

b. Shellfish Harvesting (SHELL): At all areas where shellfish may be harvested for human consumption, as determined by the Los Angeles Water Board, the total coliform density in the receiving water shall not exceed the following water quality objectives, because of waste discharged:

The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70 CFU/100 mL or MPN/100 mL, and no more than 10 percent of the sample collected during any 30-day period shall exceed 230 MPN/100mL for a five-tube decimal dilution test or 330 CFU/100mL or MPN/100 mL for a three-tube decimal dilution.

5.1.4. The concentration of dissolved oxygen shall not fall below 5.0 mg/L at any time, and the median dissolved oxygen concentration for any three consecutive months to be less than 80 percent of the dissolved oxygen content at saturation as a results of waste discharges.

5.1.5. Total ammonia (as N) concentrations shall not exceed the four-day average concentration of unionized ammonia of 0.035 mg/L and the one-hour average concentration of 0.233 mg/L as a results of waste discharges.

5.1.6. The wastes discharged shall not result in visible floating, suspended or deposited macroscopic particulate matter or foam in the receiving water.

5.1.7. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in natural turbidity shall not exceed the following limits:

a. Where natural turbidity is between 0 to 50 NTU, increases in turbidity to exceed 20%.

b. Where natural turbidity is greater than 50 NTU, increases in turbidity to exceed 10%.

5.1.8. The wastes discharged shall not result in 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.

5.1.9. The discharge shall not cause suspended or settleable materials, chemical substances, or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use in the receiving water.

5.1.10. The discharge shall not cause 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.

5.1.11. The discharge shall not cause accumulation of bottom deposits or aquatic growths in the receiving water.

5.1.12. The discharge shall not cause biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses in the receiving water.

5.1.13. The discharge shall not cause the presence of substances that result in increases of Biochemical Oxygen Demand (BOD) that adversely affect beneficial uses in the receiving water.

5.1.14. The discharge shall not cause 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 in the receiving water.

5.1.15. The discharge shall not cause alteration of turbidity, or apparent color beyond present natural background levels in the receiving water.

5.1.16. The discharge shall not cause damage, discoloration, or the formation of sludge deposits on flood control structures or facilities or overloading of the design capacity in the receiving water.

5.1.17. The discharge shall not cause degradation of surface water communities and populations including vertebrate, invertebrate, and plant species in the receiving water.

5.1.18. The discharge shall not cause problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests in the receiving water.

5.1.19. The discharge shall not cause nuisance, or adverse effects on beneficial uses of the receiving water.

5.2. Groundwater Limitations – Not Applicable

6. PROVISIONS

6.1. Standard Provisions

6.1.1. The Discharger shall comply with all Standard Provisions included in Attachment D.

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

b. 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.

c. 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.

d. Oil or oily material, chemicals, refuse, or other wastes that constitute a condition of pollution or nuisance 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.

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

f. If there is any storage of hazardous or toxic materials or hydrocarbons at this Facility and if the Facility is not staffed at all times, a 24-hour emergency

response telephone number shall be prominently posted where it can easily be read from the outside.

g. The Discharger shall notify the Los Angeles 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 Los Angeles 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.

h. In the event of any change in name, ownership, or control of these waste disposal facilities, the Discharger shall notify this Los Angeles Water Board of such change 30 days prior to taking effect and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Los Angeles Water Board.

i. The Discharger must notify the Los Angeles Water Board as soon as they know or have reason to believe that they have begun or expect to begin to use or manufacture an intermediate or final product or byproduct of any toxic pollutant that was not reported on their application.

j. 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, civil or 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.

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

l. 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.

m. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, Average Monthly Effluent Limitation (AMEL), Maximum Daily Effluent Limitation (MDEL), instantaneous or receiving water limitation of this Order, the Discharger shall notify the Chief of the Watershed

Regulatory Section at the Los Angeles Water Board by telephone (213) 576-6616 or by fax at (213) 576-6660 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Los Angeles 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. The written notification shall also be submitted via email with reference to NPDES No. CA0001171, CI-5764 to losangeles@waterboards.ca.gov. Other noncompliance requires written notification as above at the time of the normal monitoring report. Other noncompliance requires written notification as above at the time of the normal monitoring report.

n. The Facility shall make diligent, proactive efforts to reduce infrastructure vulnerability to current and future impacts resulting from climate change, including but not limited to extreme wet weather events, flooding, storm surges, and projected sea level rise when the facility is located near the ocean or discharges to the ocean.

o. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities or penalties to which the Discharger is or may be subject to under section 311 of the CWA.

p. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.

6.2. Monitoring and Reporting Program (MRP) Requirements

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

6.3. Special Provisions

6.3.1. **Reopener Provisions**

a. This Order may be modified, revoked and reissued, or terminated 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.

The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination does not stay any condition of this Order.

b. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the federal CWA, and amendments thereto,

the Los Angeles Water Board may revise and modify this Order in accordance with such more stringent standards.

c. 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.

d. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new MLs.

e. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of a water quality objective or the adoption or revision of a TMDL for the Los Beach Inner Harbor.

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.

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

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

i. This Order may also be reopened and modified in accordance with any updates to the final compliance date for the Facility in the OTC Policy and amendments thereto, as set forth in Section 6.3.6.

j. This Order will be reopened and modified to revise any and all of the chronic toxicity testing provisions and effluent limitations, to the extent necessary, to incorporate all elements contained in the State Water Board adopted Inland Surface Waters, Enclosed Bays, and Estuaries Plan (ISWEBE Plan) Toxicity Provisions following USEPA-approval of such Toxicity Provisions to be consistent with the State Water Board precedential decisions, new policies, a new state-wide plan, new laws, or new regulations.

6.3.2. **Special Studies, Technical Papers and Additional Monitoring Requirements**

a. **Updated Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.** The Discharger shall submit to the Los Angeles Water Board an updated Initial Investigation TRE workplan 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 5.2. of the Monitoring and Reporting Program (Attachment E) for an overview of 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 the table below are based on the TMDL's interim sediment allocations for copper, lead, zinc, DDT, PAHs, and PCBs. Attainment with these thresholds shall be demonstrated in accordance with Footnote d to Table 4 (Effluent Limitations) of this Order. These are thresholds that trigger monitoring requirements and do not replace or alter effluent limits.

As specified in Section 4.2 of the MRP, the Discharger is required to monitor sediment (TSS in effluent) directly, at a minimum, once during the five-year permit term if there is a discharge from the Facility during said term.

Table 5. Monitoring Thresholds

Pollutant	Monitoring Thresholds (mg/kg sediment)	Notes
Copper, Total Recoverable	142.3	--
Lead, Total Recoverable	50.4	--
Zinc, Total Recoverable	240.6	--
Polynuclear Aromatic Hydrocarbons (PAHs)	4.58	a
DDT	0.07	b
Polychlorinated Biphenyls (PCBs)	0.06	c

Footnotes for Table 5

a. According to the Sediment Quality Plan, total PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthene, anthracene, biphenyl, naphthalene, 2,6-dimethylnaphthalene, fluorene, 1-methylnaphthalene, 2-methylnaphthalene, 1-methylphenanthrene, phenanthrene, benzo(a)anthracene, benzo(a)pyrene, benzo(e)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene, perylene, and pyrene.

b. Attachment A of the State Water Board *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality*, August 25, 2009, (known as the Sediment Quality Plan) listed chemical analytes needed to characterize sediment contamination exposure and effect. According to the 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.

c. According to Attachment A of the Sediment Quality Plan, total PCBs (polychlorinated biphenyls) shall mean the sum of the following PCB congeners: 2,4'-dichlorobiphenyl, 2,2',5-

trichlorobiphenyl, 2,4,4'-trichlorobiphenyl, 2,2',3,5'-tetrachlorobiphenyl, 2,2',5,5'-tetrachlorobiphenyl, 2,3',4,4'-tetrachlorobiphenyl, 2,2',4,5,5'- pentachlorobiphenyl, 2,3,3',4,4'-pentachlorobiphenyl, 2,3',4,4',5-pentachlorobiphenyl, 2,2',3,3',4,4'-hexachlorobiphenyl, 2,2',3,4,4',5'-hexachlorobiphenyl, 2,2',4,4',5,5'-hexachlorobiphenyl, 2,2',3,3',4,4',5-heptachlorobiphenyl, 2,2',3,4,4',5,5'-heptachlorobiphenyl, 2,2',3,4',5,5',6-heptachlorobiphenyl, 2,2',3,3',4,4',5,6-octachlorobiphenyl, 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl, and decachlorobiphenyl.

End of Footnotes for Table 5

c. **Harbor Toxics TMDL Water Column, Sediment and Fish Tissue Monitoring for Greater Los Angeles and Long Beach Harbors.**

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 the Water Quality Control Plan, Los Angeles Region (Basin Plan) Chapter 7, Section 7-40.

The compliance monitoring program shall continue to include water column, sediment, and fish tissue monitoring. The Discharger shall continue to submit the annual monitoring report to the Los Angeles Water Board by the specified date in the proposed Monitoring Plan. The Discharger may comply through continued participation in collaborative efforts such as monitoring conducted by the Los Angeles Gateway Region Integrated Regional Water Management Joint Powers Authority (GWMA). In addition to the annual monitoring report, the Discharger shall submit an annual statement that indicates compliance and non-compliance with effluent limitations in Table 4 that implement applicable waste load and/or load allocations. At a minimum, monitoring shall continue to be conducted at the locations and for the constituents listed in the sections below for the water column, total suspended solids, and bed sediments. The exact locations of monitoring sites shall be specified in the Monitoring Plan to be approved by the Executive Officer.

The Compliance Monitoring Program includes the following components:

1. Water Column Monitoring.

At the Station ID in Table 6, parameters in the water column shall continue to 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.

2. Sediment Monitoring

Sediment quality objective evaluation as detailed in the SQO Part 1 (sediment triad sampling) shall continue to be performed every five years, preferably in

coordination with the Biological Baseline and Bight regional monitoring programs. Sampling and analysis for the full chemical suite, two toxicity tests and four benthic indices as specified in SQO Part 1 shall be conducted and evaluated. If moderate toxicity as defined in the SQO Part 1 is observed, results shall be highlighted in annual reports and further analysis and evaluation to determine causes and remedies shall be required in accordance with the Executive Officer approved monitoring plan. Locations for sediment triad assessment and the methodology for combining results from sampling locations to determine sediment conditions shall be specified in the Monitoring Plan to be approved by the Executive Officer. The sampling design shall be in compliance with the SQO Part 1 Sediment Monitoring section (VII.E.).

Table 6. Sediment Chemistry Monitoring Requirements by Media

Water Body Name	Station ID	Station Location	Water Column/TSS	Sediment
Long Beach Inner Harbor	13	Back Channel between Turning Basin and West Basin	Temperature, Dissolved Oxygen, pH, Salinity, TSS, Copper, Lead, Zinc, PCBs, DDT	Copper, Lead, Zinc, PCBs, DDT, PAHs

Note: Sample media and parameters based on Harbor Toxics TMDL (Basin Plan, Chapter 7, Section 7-40, p. 7-510)

3. Fish Tissue Monitoring

Fish tissue samples shall continue to be collected every two years in the Long Beach Harbor and analyzed for chlordane, dieldrin, toxaphene, DDT, and PCBs. The target species in the Inner Harbor shall be selected based on residency, local abundance and fish size at the time of field collection. The three target species shall include white croaker, a sport fish, and a prey fish. Tissues analyzed shall be based on the most common preparation for the selected fish species.

4. Sampling and Analysis Plan

The Sampling and Analysis Plan shall continue to be implemented based on methods or metrics described in the State Water Board *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality*, August 25, 2009, (known as the Sediment Quality Plan) ,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.

5. 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,

protocols for sample collection, standard analytical procedures, and laboratory certification, and be updated if any changes are made to this information. All samples shall be collected in accordance with SWAMP protocols.

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

The Discharger shall submit to the Los Angeles Water Board, within 90 days of the effective date of this Order, updated versions of the following:

a. **Spill Contingency Plan (SCP)** that includes a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events at the site. The SCP shall describe the activities and protocols to address clean-up of accidental spills, overflows, and bypasses of untreated wastewater from the Discharger's dewatering, stormwater and treatment system and its collection pipes that reach water bodies. At a minimum, the plan shall include sections of spill clean-up and containment measures, monitoring, and the procedures to be carried out if floatable material is visible on the water surface near the discharge point or has been washed ashore. The Permittee shall annually review and revise the plan as appropriate based on spill or bypass event occurred during that year. The Discharger shall provide an annual technical report summary of any modifications to the plan and the application of the plan to all events during the year. The SCP may be substituted with the Discharger's existing Spill Prevention Control and Countermeasure (SPCC) Plan. The technical report should:
    1. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks, and pipes should be considered.
    2. Evaluate the effectiveness of present facilities and procedures and state when they become operational.
    3. Describe facilities and procedures needed for effective preventive and contingency plans.
    4. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational.

b. **Stormwater Pollution Prevention Plan (SWPPP)** that describes site-specific management practices for minimizing contamination of stormwater runoff and preventing contaminated stormwater runoff from being discharged directly to the waters of the state. The SWPPP 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 stormwater runoff and the discharge of trash or hazardous waste/material; and address the feasibility of containment and/or treatment of stormwater. In addition, the SWPPP shall address and include best

management practices procedures that the Discharger will implement to prohibit the discharge of trash from the Facility. Within 90 days of the effective date of this permit, the Discharger is required to submit the updated SWPPP to the Los Angeles Water Board. The updated SWPPP shall include an evaluation of the avoidability and feasible alternatives to bypass events, and detailed requirements for the evaluation is included in Attachment G of this Order.

c. **Best Management Practices Plan (BMPP)** that will be implemented to reduce the discharge of pollutants to the receiving water. The BMPP may be included within the SWPPP as a description of best management practices (BMPs). The BMPP shall include site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material and trash from being discharged to waters of the State. Further, the Discharger shall assure that the stormwater discharges from the Facility would neither cause, nor contribute to the exceedance of water quality standards and objectives, nor create conditions of nuisance in the receiving water, and that any potential unauthorized discharges (i.e., spills) to the receiving water have been effectively prohibited. In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material and trash discharge to surface waters.

Each plan shall cover all areas of the Facility. 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 Los Angeles Water Board, whichever comes first. The plans shall be reviewed annually. The revised plans shall be submitted to the Los Angeles Water Board within 30 days of revisions if revisions have made to these plans.

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

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

6.3.5. **Climate Change Effects Vulnerability Assessment and Mitigation Plan**.

The Discharger shall develop a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan) to assess and manage climate change related effects associated with facility operation, water quality and beneficial uses. The Discharger shall consider the impacts of climate change as it affects the operation of the treatment facility due to flooding, wildfire, sea level rise, or other climate-related changes. The Climate Change Plan shall also include an assessment of the impacts from sea level rise and any projected changes to the influent water temperature and pollutant concentrations. The Climate Change Plan is due 12 months after the effective date of this Order.

6.3.6. **Other Special Provisions – Not Applicable**

6.3.7. **Compliance Schedules – Not Applicable**

7. COMPLIANCE DETERMINATION

Compliance with the effluent limitations is based on all available data collected during the time period, including bypass data, contained in section 4 of this Order shall be determined as specified below:

7.1. 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 (ML) (see Reporting Requirement 1.9. of the MRP), then the Discharger is out of compliance.

7.2. 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, constituents reported as ND or DNQ are treated as having concentrations equal to zero, provided that the applicable ML is used.

7.3. 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

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

7.3.2. 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.

7.4. 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:

7.4.1. 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.

7.4.2. 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.

7.5. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by subsections 7.3 and 7.4. 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 for the purpose of calculating mandatory minimum penalties; 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) for the purpose of calculating discretionary administrative civil liabilities. However, an alleged violation of the AMEL will be considered one violation for the purpose of assessing mandatory minimum penalties. 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. If multiple samples are taken the Discharger will only be considered out of compliance for days when the discharge occurs. For anyone calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

7.5.1. 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 each day of the month for that parameter.

7.5.2. 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 same calendar 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 ML (see Reporting Requirement 1.1. 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 1.1. 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.

7.5.3. 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.

7.5.4. 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.

7.6. 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 one day only within the reporting period. For any one day during which no sample is taken, no compliance determination will be made for that day.

7.7. 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).

7.8. 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).

7.9. 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 an effluent violation, but compliance determination can be made for that month with respect to reporting violations.

7.10. Chronic Toxicity

The discharge is subject to determination of “Pass” or “Fail” and “Percent Effect” from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test 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, Table A-1, and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is: Mean discharge In-stream Waste Concentration (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. This is a t-test (formally Student’s t-Test), a statistical analysis comparing two sets of replicate

observations - in the case of Whole Effluent Toxicity (WET), only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is “Pass” or “Fail”)). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances.

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”. The MMEL for chronic toxicity shall only apply when there is a discharge on more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests may be conducted when one toxicity test results in “Fail.”

The chronic toxicity MDEL and MMEL are set at the IWC for the discharge (100% effluent) and expressed in units of the TST statistical approach (“Pass” or “Fail”, “Percent Effect”). All NPDES effluent compliance monitoring for the chronic toxicity MDEL and MMEL shall be reported using only the 100% effluent concentration and negative control, expressed in units of the TST. The TST hypothesis (Ho) (see above) is statistically analyzed using the IWC and a negative control. Effluent toxicity tests shall be run using a multi-concentration test design when required by *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (U.S. EPA 2002, EPA-821-R-02-013). The Los Angeles Water Board’s review of reported toxicity test results will include review of concentration-response patterns as appropriate (see Fact Sheet discussion at 4.3.6.). As described in the bioassay laboratory audit correspondence from the State Water Resources Control Board dated August 7, 2014, and from the U.S. EPA dated December 24, 2013, the Percent Minimum Significant Difference (PMSD) criteria only apply to compliance reporting for the No Observable Effect Concentration (NOEC) and the sublethal statistical endpoints of the NOEC, and therefore are not used to interpret TST results. Standard Operating Procedures used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent (and receiving water) toxicity test measurement results from the TST statistical approach, including those that incorporate a consideration of concentration-response patterns, must be submitted to the Los Angeles Water Board (40 CFR section 122.41(h)). The Los Angeles Water Board will make a final determination as to whether a toxicity test result is valid, and may consult with the Permittee, the U.S. EPA, the State Water Board’s Quality Assurance Officer, or the State Water Board’s Environmental Laboratory Accreditation Program (ELAP) as needed. The Board may consider the results of any TIE/TRE studies in an enforcement action.

7.11. 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.

7.12. Bacterial Standards and Analyses

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

$$\text{Geometric Mean} = (C1 \times C2 \times \ldots \times Cn)^{1/n}$$

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 *Enterococci*). 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 *Enterococci* shall be those presented in Table 1A of 40 CFR section 136 (revised August 28, 2017), 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.

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:

$$\text{Arithmetic mean } (\mu) = \frac{\Sigma x}{n}$$

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 month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

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

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

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

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

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

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

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

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

EC25
EC25 is a point estimate of the toxicant concentration that would cause an observable adverse effect (e.g., death, immobilization, or serious incapacitation) in 25 percent of the test organisms.

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 wasteload 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:

$$\text{median} = \frac{X_{(n+1)}}{2}$$

If n is even, then:

$$\text{median} = \frac{X_{\frac{n}{2}} + X_{\frac{n}{2}+1}}{2}$$

(i.e., the midpoint between the (n/2 and ((n/2)+1))).

Median Monthly Effluent Limitation (MMEL)
The MMEL is, for the purposes of this Policy, an effluent limit based on the median results of three independent toxicity tests, conducted within the same calendar month, and analyzed using the TST. The MMEL is exceeded when the median result (i.e. two out of three) is a “fail.”

Method Detection Limit (MDL)
MDL is the minimum concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in 40 Code of Federal Regulations (CFR). part 136, Attachment B.

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.

PCBs (polychlorinated biphenyls)
U.S. EPA method 608, reported as arochlor results, is required for monitoring data that will be used for assessing compliance with WQBELs (if applicable). PCBs as aroclors shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

U.S. EPA proposed method 1668c, reported as 44 congener results, is requested for informational purposes to help assess concentrations in the receiving water. To facilitate interpretation of sediment/fish tissue data for TMDL development, PCB congeners whose analytical characteristics resemble those of PCB-8, 18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 195, 201, 206 and 209 shall be reported as a sum and individually quantified (or quantified as mixtures of isomers of a single congener in co-elutions as appropriate).

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 Los Angeles 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 Los Angeles 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 Los Angeles 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 Event
A continuous discharge of stormwater for a minimum of one hour, or the intermittent discharge of stormwater for a minimum of three hours in a 12-hour period.

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

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

$$\text{Standard Deviation } (\sigma) = \frac{\Sigma(X-\mu)^2}{(n-1)^{0.5}}$$

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

Statistical Threshold Value (STV)
The STV for the bacteria water quality objectives is a set value that approximates the 90th percentile of the water quality distribution of a bacterial population.

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

ACRONYMS AND ABBREVIATIONS

AMEL	Average Monthly Effluent Limitation
B	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	*Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BMPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-day @ 20 °C
BPT	Best Practicable Treatment Control Technology
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CFU	Colony Forming Unit
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	Water Code
Discharger	Los Beach Generating, LLC
DNQ	Detected but Not Quantified
E	Existing Order
ELAP	Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Facility	Long Beach Generating Station
GPD	gallons per day
IC	In-stream Waste Concentration
LA	Load Allocations
Los Angeles Water Board	California Regional Water Quality Control Board, Los Angeles Region
lbs/day	Pounds per Day
LTA	Long-Term Average
µg/L	micrograms per Liter
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MDL	Method Detection Limit
MEC	Maximum Effluent Concentration
MGD	Million Gallons Per Day
ML	Minimum Level
mL	milliliters
MMEL	Median Monthly Effluent Limit
MPN	Most Probable Number
MRP	Monitoring and Reporting Program

ND	Not Detected
NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NTR	National Toxics Rule
NTU	Nephelometric Turbidity Unit
OAL	Office of Administrative Law
Ocean Plan	*Water Quality Control Plan for Ocean Waters of California*
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PMEL	Proposed Maximum Daily Effluent Limitation
PMP	Pollutant Minimization Plan
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
PCBs	Polychlorinated Biphenyls
RPA	Reasonable Potential Analysis
RL	Reporting Limit
SCP	Spill Contingency Plan
SIP	State Implementation Policy (*Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*)
SMR	Self-Monitoring Reports
SPCC	Spill Prevention Control and Countermeasures Plan
State Water Board	California State Water Resources Control Board
STV	Statistical Threshold Value
SWAMP	Stormwater Ambient Monitoring Program
SWPPP	Stormwater Pollution Prevention Plan
TAC	Test Acceptability Criteria
TBEL	Technology-based Effluent Limitation
TEF	Toxicity equivalency factors
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TRE	Toxicity Reduction Evaluation
TSD	Technical Support Document (*Technical Support Document for Water*) *Quality-based Toxics Control* (EPA/505/2-90-001,1991)
TSS	Total Suspended Solids
TST	Test of Significant Toxicity
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
%	Percent

ATTACHMENT B – LOCATION MAP

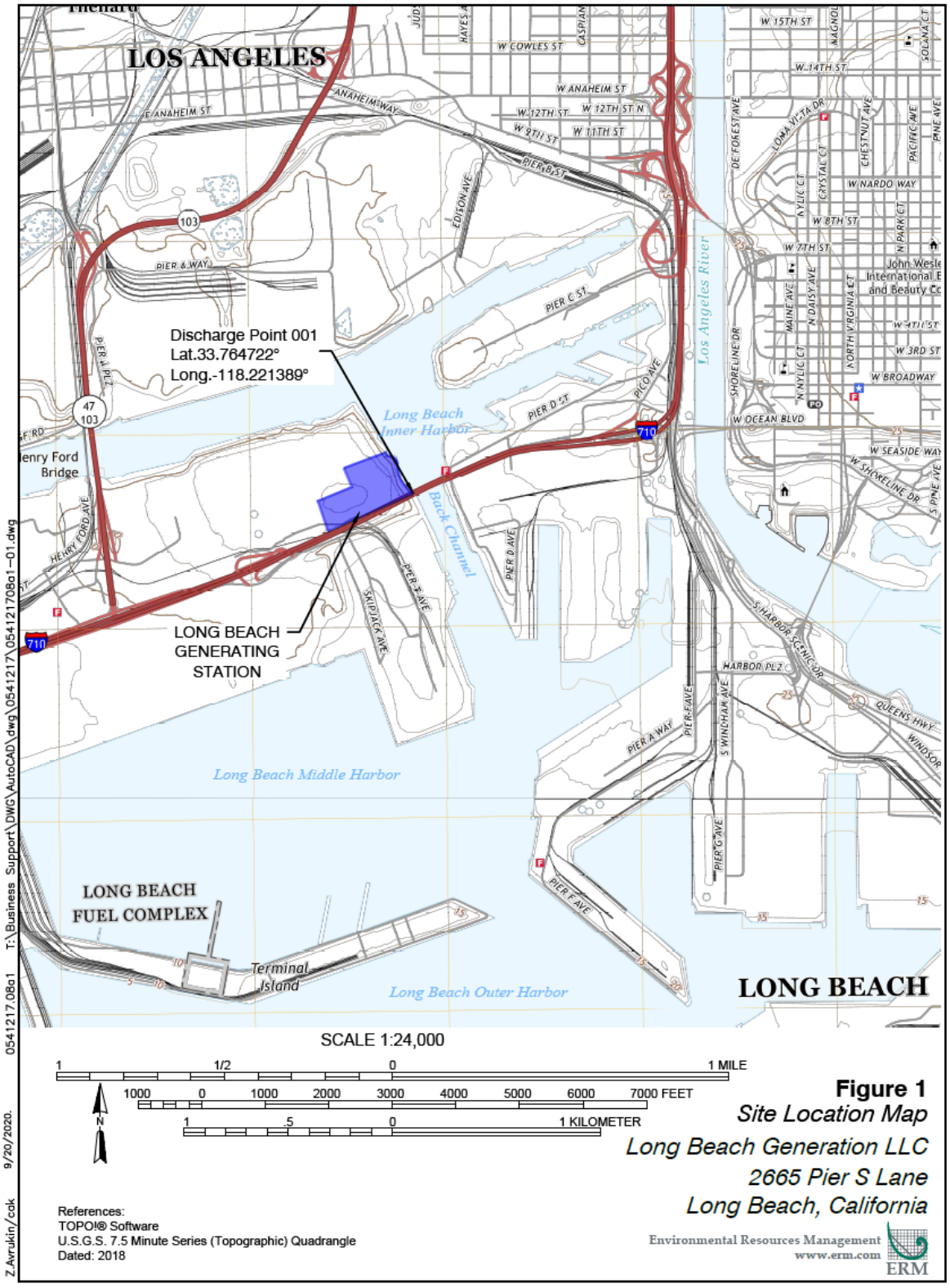
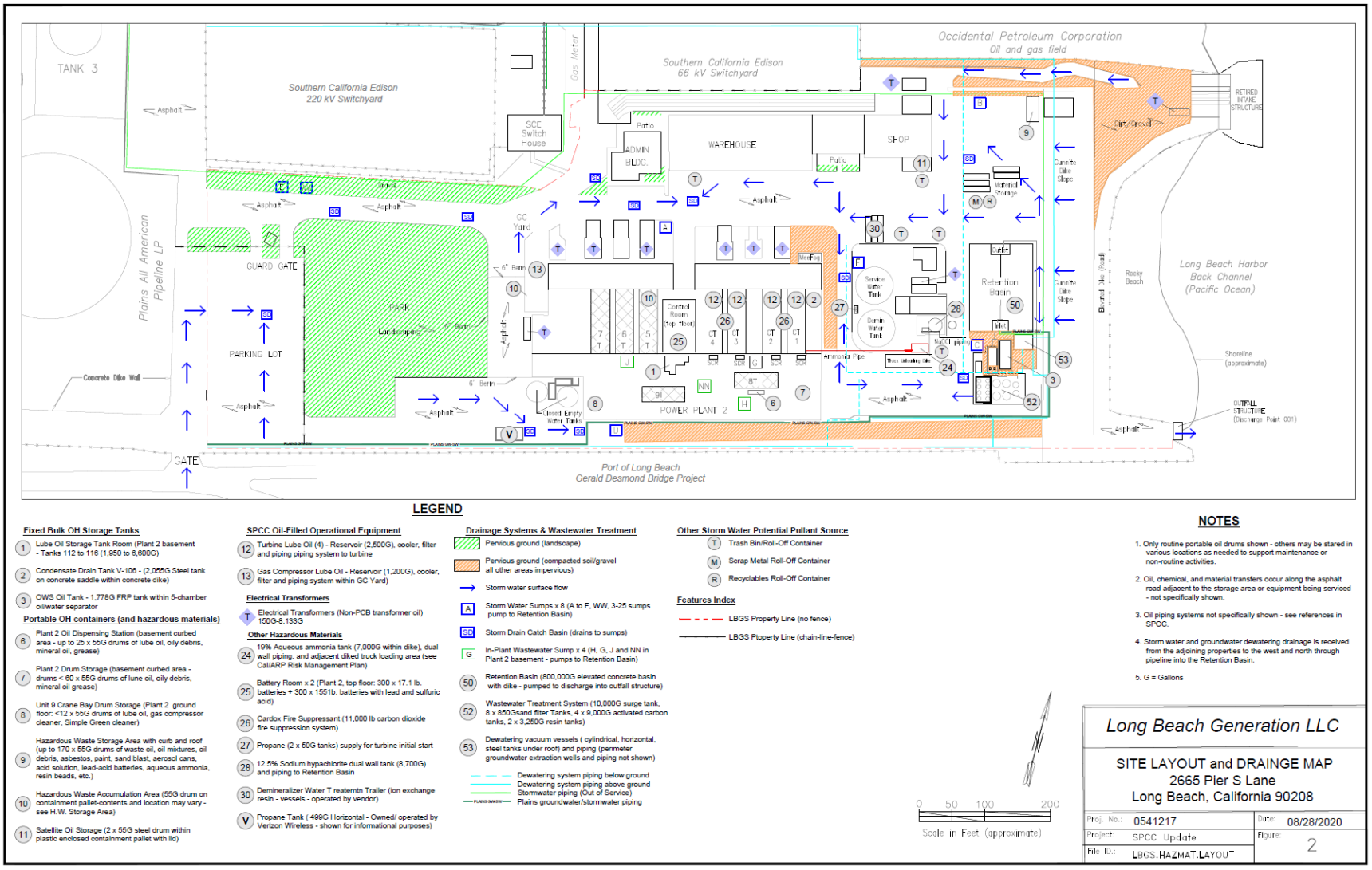


Figure 1
Site Location Map
Long Beach Generation LLC
2665 Pier S Lane
Long Beach, California

Environmental Resources Management
www.erm.com
ERM

ATTACHMENT C – SITE LAYOUT, DRAINAGE AREA & FLOW SCHEMATIC



LEGEND

Fixed Bulk OH Storage Tanks

1. Lube Oil Storage Tank Room (Plant 2 basement - Tanks 112 to 116 (1,950 to 6,600G)
2. Condensate Drain Tank V-106 - (2,055G Steel tank on concrete saddle within concrete dike)
3. OWS Oil Tank - 1,778G FRP tank within 5-chamber oil/water separator

Portable OH containers (and hazardous materials)

6. Plant 2 Oil Dispensing Station (basement curbed area - up to 25 x 55G drums of lube oil, oily debris, mineral oil, grease)
7. Plant 2 Drum Storage (basement curbed area - drums < 60 x 55G drums of lune oil, oily debris, mineral oil grease)
8. Unit 9 Crane Bay Drum Storage (Plant 2 ground floor; <12 x 55G drums of lube oil, gas compressor cleaner, Simple Green cleaner)
9. Hazardous Waste Storage Area with curb and roof (up to 170 x 55G drums of waste oil, oil mixtures, oil debris, asbestos, paint, sand blast, aerosol cans, acid solution, lead-acid batteries, aqueous ammonia, resin beads, etc.)
10. Hazardous Waste Accumulation Area (55G drum on containment pallet-contents and location may vary - see H.W. Storage Area)
11. Satellite Oil Storage (2 x 55G steel drum within plastic enclosed containment pallet with lid)

SPCC Oil-Filled Operational Equipment

12. Turbine Lube Oil (4) - Reservoir (2,500G), cooler, filter and piping piping system to turbine
13. Gas Compressor Lube Oil - Reservoir (1,200G), cooler, filter and piping system within GC Yard)

Electrical Transformers

T. Electrical Transformers (Non-PCB transformer oil) 150G-8,133G

Other Hazardous Materials

24. 19% Aqueous ammonia tank (7,000G within dike), dual wall piping, and adjacent diked truck loading area (see Cal/ARP Risk Management Plan)
25. Battery Room x 2 (Plant 2, top floor: 300 x 17.1 lb. batteries + 300 x 1551b. batteries with lead and sulfuric acid)
26. Cardox Fire Suppressant (11,000 lb carbon dioxide fire suppression system)
27. Propane (2 x 50G tanks) supply for turbine initial start
28. 12.5% Sodium hypachlorite dual wall tank (8,700G) and piping to Retention Basin
30. Demineralizer Water T reatemtn Trailer (ion exchange resin - vessels - operated by vendor)
V. Propane Tank (499G Horizontal - Owned/ operated by Verizon Wireless - shown for informational purposes)

Drainage Systems & Wastewater Treatment

- Pervious ground (landscape)
- Pervious ground (compacted soil/gravel all other areas impervious)
- Storm water surface flow
- A. Storm Water Sumps x 8 (A to F, WW, 3-25 sumps pump to Retention Basin)
- SC. Storm Drain Catch Basin (drains to sumps)
- G. In-Plant Wastewater Sump x 4 (H, G, J and NN in Plant 2 basement - pumps to Retention Basin)
50. Retention Basin (800,000G elevated concrete basin with dike - pumped to discharge into outfall structure)
52. Wastewater Treatment System (10,000G surge tank, 8 x 850Gsand filter Tanks, 4 x 9,000G activated carbon tanks, 2 x 3,250G resin tanks)
53. Dewatering vacuum vessels (cylindrical, horizontal, steel tanks under roof) and piping (perimeter groundwater extraction wells and piping not shown)
- Dewatering system piping below ground
- Dewatering system piping above ground
- Stormwater piping (Out of Service)
- Plains groundwater/stormwater piping

Other Storm Water Potential Pullant Source

- T. Trash Bin/Roll-Off Container
- M. Scrap Metal Roll-Off Container
- R. Recyclables Roll-Off Container

Features Index

- LBGS Property Line (no fence)
- LBGS Ptoperty Line (chain-line-fence)

NOTES

1. Only routine portable oil drums shown - others may be stared in various locations as needed to support maintenance or non-routine activities.
2. Oil, chemical, and material transfers occur along the asphalt road adjacent to the storage area or equipment being serviced - not specifically shown.
3. Oil piping systems not specifically shown - see references in SPCC.
4. Storm water and groundwater dewatering drainage is received from the adjoining properties to the west and north through pipeline into the Retention Basin.
5. G = Gallons

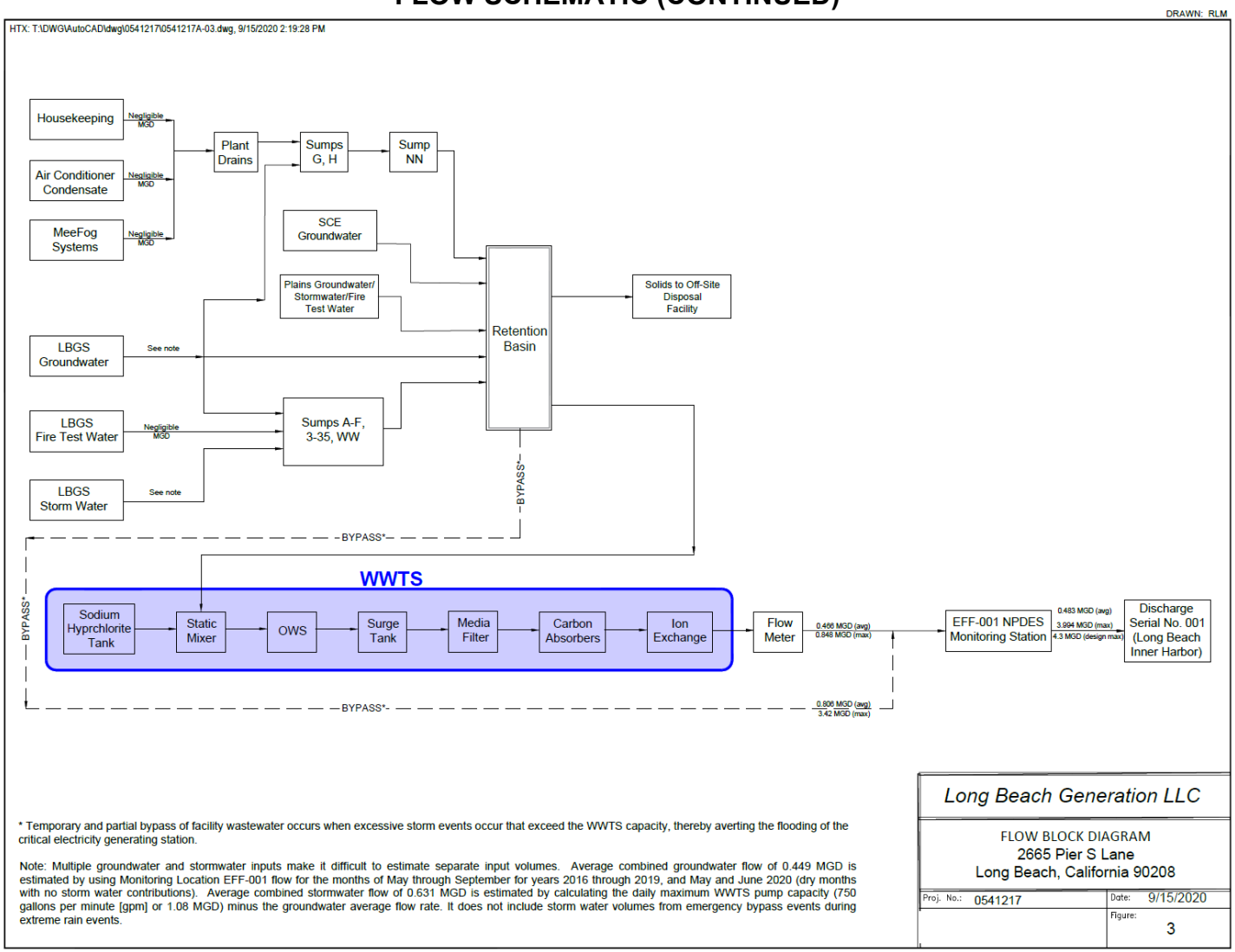
0 50 100 200
Scale in Feet (approximate)

Long Beach Generation LLC

SITE LAYOUT and DRAINGE MAP
2665 Pier S Lane
Long Beach, California 90208

Proj. No.:	0541217	Date:	08/28/2020
Project:	SPCC Update	Figure:	2
File ID.:	LBGS.HAZMAT.LAYOUT		

FLOW SCHEMATIC (CONTINUED)



ATTACHMENT D – STANDARD PROVISIONS

1. STANDARD PROVISIONS – PERMIT COMPLIANCE

1.1. Duty to Comply

1.1.1. 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 Code of Federal Regulations (CFR) § 122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

1.1.2. 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 CFR § 122.41(a)(1).)

1.2. 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 CFR § 122.41(c).)

1.3. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR § 122.41(d).)

1.4. 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 CFR § 122.41(e).)

1.5. Property Rights

1.5.1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR § 122.41(g).)

1.5.2. 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 CFR § 122.5(c).)

1.6. Inspection and Entry

The Discharger shall allow the Los Angeles 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 CFR § 122.41(i); Wat. Code, §§ 13267, 13383):

1.6.1. 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 CFR § 122.41(i)(1); Wat. Code, §§ 13267, 13383);

1.6.2. 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 CFR § 122.41(i)(2); Wat. Code, §§ 13267, 13383);

1.6.3. 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 CFR § 122.41(i)(3); Wat. Code, §§ 13267, 13383); and

1.6.4. 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 CFR § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

1.7. Bypass

1.7.1. Definitions

a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR § 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 CFR § 122.41(m)(1)(ii).)

1.7.2. 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 1.7.3, 1.7.4, and 1.7.5 below. (40 CFR § 122.41(m)(2).)

1.7.3. Prohibition of bypass. Bypass is prohibited, and the Los Angeles Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR § 122.41(m)(4)(i)):

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR § 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 CFR § 122.41(m)(4)(i)(B)); and

c. The Discharger submitted notice to the Los Angeles Water Board's required under Standard Provisions – Permit Compliance 1.7.5 below. (40 CFR § 122.41(m)(4)(i)(C).)

1.7.4. The Los Angeles Water Board may approve an anticipated bypass, after considering its adverse effects, if the Los Angeles Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance 1.7.3 above. (40 CFR § 122.41(m)(4)(ii).)

1.7.5. Notice

a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the date of the bypass. As of December 21, 2025, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(i).)

b. Unanticipated bypass. The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting 5.5 below (24-hour notice). As of December 21, 2025, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(ii).)

1.8. 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 CFR § 122.41(n)(1).)

1.8.1. 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 1.8.2 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 CFR § 122.41(n)(2).)

1.8.2. 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 CFR § 122.41(n)(3)):

a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR § 122.41(n)(3)(i));

b. The permitted facility was, at the time, being properly operated (40 CFR § 122.41(n)(3)(ii));

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting 5.5.2.2 below (24-hour notice) (40 CFR § 122.41(n)(3)(iii)); and

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance 1.3 above. (40 CFR § 122.41(n)(3)(iv).)

1.8.3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR § 122.41(n)(4).)

2. STANDARD PROVISIONS – PERMIT ACTION

2.1. 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 CFR § 122.41(f).)

2.2. 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 CFR § 122.41(b).)

2.3. Transfers

This Order is not transferable to any person except after notice to the Los Angeles Water Board. The Los Angeles 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 CFR §§ 122.41(l)(3), 122.61.)

3. STANDARD PROVISIONS – MONITORING

3.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR § 122.41(j)(1).)

3.2. Monitoring must be conducted according to test procedures approved under 40 CFR part 136 for the analyses of pollutants unless another method is required under 40 CFR chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 CFR part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:

3.2.1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant

parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

3.2.2. The method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR chapter 1, subchapter N for the measured pollutant or pollutant parameter. In the case of pollutants or pollutant parameters for which there are no approved methods under 40 CFR part 136, or otherwise required under 40 CFR chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 CFR §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

4. STANDARD PROVISIONS – RECORDS

4.1. Retaining Records

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 Los Angeles Water Board Executive Officer at any time. (40 CFR § 122.41(j)(2).)

4.2. Records of monitoring information shall include:

4.2.1. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));

4.2.2. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));

4.2.3. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));

4.2.4. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));

4.2.5. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and

4.2.6. The results of such analyses. (40 CFR § 122.41(j)(3)(vi).)

4.3. Claims of confidentiality for the following information will be denied (40 CFR § 122.7(b)):

4.3.1. The name and address of any permit applicant or Discharger (40 CFR § 122.7(b)(1)); and

4.3.2. Permit applications and attachments, permits and effluent data. (40 CFR § 122.7(b)(2).)

5. STANDARD PROVISIONS – REPORTING

5.1. Duty to Provide Information

The Discharger shall furnish to the Los Angeles Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Los Angeles 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 Los Angeles Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order.
(40 CFR § 122.41(h); Wat. Code, §§ 13267, 13383.)

5.2. Signatory and Certification Requirements

5.2.1. All applications, reports, or information submitted to the Los Angeles Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting 5.2.2, 5.2.3, 5.2.4, 5.2.5, and 5.2.6 below. (40 CFR § 122.41(k).)

5.2.2. 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 CFR § 122.22(a)(1).)

5.2.3. All reports required by this Order and other information requested by the Los Angeles Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting 5.2.2 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 5.2.2 above (40 CFR § 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 CFR § 122.22(b)(2)); and

c. The written authorization is submitted to the Los Angeles Water Board and State Water Board. (40 CFR § 122.22(b)(3).)

5.2.4. If an authorization under Standard Provisions – Reporting 5.2.3 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 5.2.3 above must be submitted to the Los Angeles Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative.
(40 CFR § 122.22(c).)

5.2.5. Any person signing a document under Standard Provisions – Reporting 5.2.2 or 5.2.3 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 CFR § 122.22(d).)

5.2.6. Any person providing the electronic signature for documents described in Standard Provisions – 5.2.1, 5.2.2, or 5.2.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting 5.2, and shall ensure that all relevant requirements of 40 CFR part 3 (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e).)

5.3. Monitoring Reports

5.3.1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR § 122.41(l)(4).)

5.3.2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Los Angeles Water Board or State Water Board. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 and comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(l)(4)(i).)

5.3.3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136, or another method required for an industry-specific waste stream under 40 CFR chapter 1, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Los Angeles Water Board or State Water Board. (40 CFR § 122.41(l)(4)(ii).)

5.3.4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR § 122.41(l)(4)(iii).)

5.4. 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 CFR § 122.41(l)(5).)

5.5. Twenty-Four Hour Reporting

5.5.1. The Discharger shall report any noncompliance which 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 report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report 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.

For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 21, 2025, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Los Angeles Water Board and must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10. The reports shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. The Los Angeles Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(l)(6)(i).)

5.5.2. The following shall be included as information that must be reported within 24 hours:

a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR § 122.41(l)(6)(ii)(A).)

b. Any upset that exceeds any effluent limitation in this Order. (40 CFR § 122.41(l)(6)(ii)(B).)

5.5.3. The Los Angeles Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR § 122.41(l)(6)(ii)(B).)

5.6. Planned Changes

The Discharger shall give notice to the Los Angeles 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 CFR § 122.41(l)(1)):

5.6.1. 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 CFR § 122.41(l)(1)(i)); or

5.6.2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR § 122.41(l)(1)(ii).); or

5.6.2. 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 7.1.1). (40 CFR § 122.41(l)(1)(ii).)

5.7. Anticipated Noncompliance

The Discharger shall give advance notice to the Los Angeles Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 CFR § 122.41(l)(2).)

5.8. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting 5.3, 5.4, and 5.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting 5.5 above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting 5.5 and the applicable required data in appendix A to 40 CFR part 127. The Los Angeles Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(l)(7).)

5.9. 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 Los Angeles Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 CFR § 122.41(l)(8).)

5.10. Initial Recipient for Electronic Reporting Data

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 CFR part 127 to the initial recipient defined in 40 CFR section 127.2(b). U.S. EPA will identify and publish the list

of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 CFR section 127.2(c)]. U.S. EPA will update and maintain this listing. (40 CFR § 122.41(l)(9).)

6. STANDARD PROVISIONS – ENFORCEMENT

6.1. The Los Angeles 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.

6.2. 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].

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

6.4 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 Order 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 CFR section 122.41(j)(5)].

6.5 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 CFR section 122.41(k)(2)].

7. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

7.1. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Los Angeles Water Board as soon as they know or have reason to believe (40 CFR § 122.42(a)):

7.1.1. 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 CFR § 122.42(a)(1)):

a. 100 micrograms per liter (µg/L) (40 CFR § 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 CFR § 122.42(a)(1)(ii));

c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR § 122.42(a)(1)(iii)); or

d. The level established by the Los Angeles Water Board in accordance with section 122.44(f). (40 CFR § 122.42(a)(1)(iv).)

7.1.2. 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 CFR § 122.42(a)(2)):

a. 500 micrograms per liter (µg/L) (40 CFR § 122.42(a)(2)(i));

b. 1 milligram per liter (mg/L) for antimony (40 CFR § 122.42(a)(2)(ii));

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR § 122.42(a)(2)(iii)); or

d. The level established by the Los Angeles Water Board in accordance with section 122.44(f). (40 CFR § 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) NO. 5764

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 CFR) require that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. Water Code section 13383 authorizes the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) to establish monitoring, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

1. GENERAL MONITORING PROVISIONS

1.1. An effluent sampling station shall be established for the points of discharge (Discharge Point 001) and shall be located where representative samples of that effluent can be obtained.

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

1.3. The Los Angeles 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.

1.4. Pollutants shall be analyzed using the analytical methods described in 40 CFR sections 136.3, 136.4, and 136.5 (revised August 28, 2017); or, where no methods are specified for a given pollutant, by methods approved by this Los Angeles Water Board or the State Water Resources Control Board (State Water Board).

1.5. **Laboratory Certification.** Laboratories analyzing monitoring samples shall be certified by the State Water Board, Division of Drinking Water, Environmental Laboratory Accreditation Program (ELAP) in accordance with the provision of Water Code section 13176, or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) 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.

1.6. For any analyses performed for which no procedure is specified in the United States Environmental Protection Agency (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.

1.7. 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:

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

1.7.2. “Detected, but Not Quantified (DNQ)” if results are greater than or equal to the laboratory’s MDL but less than the ML; or,

1.7.3. "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 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*, (State Implementation Policy or SIP), February 24, 2005, Appendix 4.

1.8. 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 as per the 40 CFR parts 122 and 136; *Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting*. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures, reporting levels (RLs), and method detection limits (MDLs).

1.9. 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 as per the 40 CFR parts 122 and 136; *Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting*. Water quality objectives for parameters may be found in Chapter 3 of the Basin Plan and the CTR (40 CFR section 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 MDLs.

The Los Angeles Water Board, in consultation with the State Water Board Quality Assurance Program, shall establish a ML that is not contained in Appendix 4 of the SIP to be included in the Discharger's permit in any of the following situations:

1.9.1. When the pollutant under consideration is not included in Appendix 4 of the SIP;

1.9.2. When the Discharger and Los Angeles Water Board agree to include in the permit a test method that is more sensitive than that specified in part 136 (revised August 28, 2017);

1.9.3. When the Discharger agrees to use an ML that is lower than that listed in Appendix 4 of the SIP;

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

1.9.5. 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 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.

1.10. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR 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 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.

1.11. Field analyses with short sample holding time such as pH, total chlorine residual, and temperature, may be performed using properly calibrated and maintained portable instruments by trained personnel acting on the Discharger's behalf, using methods in accordance with 40 CFR part 136. All field instruments must be calibrated per manufacturer's instructions. A manual containing the standard operating procedures for all field analyses, including records of personnel proficiency, training, instruments calibration and maintenance, and quality control procedures shall be maintained onsite, and shall be available for inspection by Los Angeles Water Board staff. Information including instrument calibration, time of sample collection, time of analysis, name of analyst, quality assurance/quality control data, and measurement values shall be clearly documented during each field analysis and submitted to the Los Angeles Water Board as part of the corresponding regular monitoring report.

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

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

1.14. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. Unless otherwise specified in the analytical method, duplicate samples must be analyzed at a frequency of 5% (1 in 20 samples) with at least one if there is fewer than 20 samples in a batch. A batch is defined as a single analytical run encompassing no more than 24 hours from start to finish. A similar frequency shall be maintained for analyzing spiked samples.

1.15. 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.

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

a. Types of wastes and quantity of each type;
b. Name and address for each hauler of wastes (or method of transport if other than by hauling); and
c. 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.

1.17. Each monitoring report shall state whether there was any change in the discharge as described in the Order during the reporting period.

1.18. Each monitoring report must affirm in writing that "*all analyses were conducted at a laboratory certified for such analyses by the State Water Board, Division of Drinking Water, Environmental Laboratory Accreditation Program or approved by the Executive Officer and in accordance with current U.S. EPA guideline procedures or as specified in this MRP.*"

2. 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 (latitude and longitude information in Table E-1 is approximate for administrative purposes):

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	Effluent shall be sampled at a location downstream of any treatment process and upstream of the discharge point into the Back Channel of Long Beach Inner Harbor, where representative samples of the effluent can be obtained. Latitude 33.764722º Longitude -118.221389º
--	RSW-001	A receiving water sampling location where representative samples of the Long Beach Inner Harbor can be obtained outside the influence of the effluent discharge location, and at a location 50 feet from the Discharge Point 001 in the opposite direction of tidal flow in the Long Beach Inner Harbor.

3. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

4. EFFLUENT MONITORING REQUIREMENTS

4.1. Monitoring Locations EFF-001

The Discharger shall monitor the combined discharge at Monitoring Location 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.

If an emergency bypass occurs, monitoring using grab samples is required for the parameters listed in Table E-2 except total residual chlorine, MBAS, TCDD equivalents, remaining priority pollutants and radioactivity. During a prolonged emergency bypass discharge that occurs continuously or intermittently for more than a week, only one sample per week is required. During the first emergency bypass of the year that occurs within operating hours, monitoring of all priority pollutants and parameters mentioned below is required. In each bypass event, the Discharger must collect sufficient bypass sample to provide an adequate number of effluent sediments (suspended solids) for sediment analyses. If effluent sediment monitoring is triggered by exceedances as described in Footnote f of Table E-2, an effluent sediment monitoring on the bypass sediments must be conducted.

During a maintenance bypass event that discharges into the receiving water, monitoring for Table E-2 parameters is required.

Samples for emergency bypass events shall be collected within one (1) hour of:
- The start of the bypass; or
- The start of facility operation if the bypass occurs within facility non-operating hours and continues to occur during the facility operating hours. Sample collection is required during scheduled facility operating hours. The sampling shall be conducted when sampling conditions are safe.

Table E-2. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Flow	MGD	Recorder /Totalizer	Continuous	a
Temperature	°F	Meter	Continuous	a & b
pH	standard units	Grab or Meter	1/Month	c
Total Residual Chlorine	mg/L, lbs/day	Grab or Meter	1/Month	c
BOD_5 @ 20°C	mg/L, lbs/day	Grab	1/Month	c & d
Oil and Grease	mg/L	Grab	1/Month	c & d
TSS	mg/L, lbs/day	Grab	1/Month	c & d

Turbidity	NTU	Grab	1/Month	c
Settleable Solids	ml/L	Grab	1/Month	c
Salinity	Parts per thousand	Grab	1/Quarter	c
Methylene Blue Active Substances (MBAS)	mg/L	Grab	1/Quarter	c
Methyl Tertiary Butyl Ether (MTBE)	µg/L	Grab	1/Quarter	c
Total Petroleum Hydrocarbons (TPH) as Gasoline (C_4-C_{12})	µg/L	Grab	1/Quarter	c & e
TPH as Diesel (C_{13}-C_{22})	µg/L	Grab	1/Quarter	c & e
TPH as Kerosene (C_{23+})	µg/L	Grab	1/Quarter	c & e
Total Coliform	CFU or MPN/100mL	Grab	5/Quarter	f
Enterococci	CFU or MPN/100mL	Grab	6/Quarter	f
Chronic Toxicity	Pass/Fail, % Effect	Grab	1/Quarter	g
Ammonia, Total (as N)	mg/L	Grab	1/Quarter	c
Copper, Total Recoverable (TR)	µg/L, lbs/day	Grab	1/Month	c& h
Lead, TR	µg/L, lbs/day	Grab	1/Month	c & h
Mercury, TR	µg/L, lbs/day	Grab	1/Month	c, h & i
Nickel, TR	µg/L, lbs/day	Grab	1/Month	c
Zinc, TR	µg/L, lbs/day	Grab	1/Month	c & g
Cyanide	µg/L, lbs/day	Grab	1/Month	c
Benzo(a)pyrene	µg/L	Grab	1/Month	c, h & j
Chrysene	µg/L	Grab	1/Month	c, h & j
4,4'-DDT	µg/L	Grab	1/Month	c, h & j
Alpha-Endosulfan	µg/L	Grab	1/Month	c
PCBs, Total	µg/L, lbs/day	Grab	1/Month	c, h, j & k
Radioactivity (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium)	pCi/L	Grab	1/Year	c and n
TCDD Equivalents	µg/L, lbs/day	Grab	2/Year	c & m
Remaining Priority Pollutants	µg/L	Grab	1/Year	c & l

Footnotes for Table E-2

a. When continuous monitoring is required, the total daily flow (24-hour basis) shall be reported. Periods of no flow shall also be reported. For any continuously monitored parameter, the Discharger shall report the minimum, average, and maximum value for each calendar day.
b. Only maximum temperature shall be reported.
c. Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136. For priority pollutants, the methods must meet the lowest MLs specified in Appendix 4 of the SIP. Where no methods are specified for a given pollutant, the methods must be approved by the Los Angeles Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select a sufficiently sensitive method from the listed methods and corresponding ML necessary to demonstrate compliance with applicable effluent limitations.
d. The mass emission (lbs/day) for the discharge shall be calculated and reported using the measured concentration and the actual flow rate measured at the time of discharge, using the formula:
   $M = 8.34 \times C \times Q$
   where: M = mass discharge for a pollutant (lbs/day)
   C = Reported concentration for a pollutant (mg/L)
   Q = actual discharge flow rate (MGD)
e. For TPH as Gasoline (C_4-C_{12}) use EPA Method 503.1 or 8015B. For TPH as Diesel (C_{13}-C_{22}) and TPH as Kerosene (C_{23+}) use EPA Method 503.1 or 8015B, or 8270.
f. For total coliform, not less than five (5) samples shall be taken equally spaced over a 30-day period for the quarter. For *Enterococci*, samples shall be collected consecutive six weeks in a quarter.
g. Refer to section 5 below, Whole Effluent Toxicity Testing Requirements. Pass" or "Fail" for Median Monthly Effluent Limitation (MMEL). "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL). The MMEL for chronic toxicity shall only apply when there is a discharge more than one day in a calendar month period. During such calendar months, exactly three independent toxicity tests are required when one toxicity test results in "Fail".
h. 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. The effluent sediment monitoring shall begin during the next regular monitoring event following the effluent exceedance. An effluent sediment monitoring result at or below the interim sediment allocations (Monitoring Thresholds) in Table 5 of this Order, demonstrates attainment with the applicable sediment allocation and additional sediment monitoring of the effluent is not required. An effluent sediment monitoring result at or below the interim sediment allocations (Monitoring Thresholds) in Table 5 of this Order, demonstrates attainment with the applicable sediment allocation and additional sediment monitoring of the effluent is not required. An effluent sediment monitoring result that exceeds the interim sediment allocation requires additional sediment monitoring of the effluent during discharge but not more frequently than once per year until the three-year average concentration for sediment monitoring results is at or below the interim sediment allocation.
i. USEPA Method 1631E, per 40 CFR part 136, with a quantification level lower than 0.5 ng/L, shall be used to analyze total mercury. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR part 136, the Discharger may use that method in lieu of USEPA Method 1631E.
j. Samples analyzed must be unfiltered samples.
k. 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.
l. Priority Pollutants are those constituents referred to in 40 CFR section 401.15; a list of these pollutants is provided as Appendix A to 40 CFR part 423.

m. TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (ML), and toxicity equivalency factors (TEFs) are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. 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

Toxicity Equivalency Factors

Congeners	Minimum Level (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

n. Analyze these radiochemicals by the following U.S. EPA methods:
   a. Method 900.0 for gross alpha and gross beta
   b. Method 903.0 or 903.1 for radium-226
   c. Method 904.0 for radium-228
   d. Method 906.0 for tritium
   e. Method 905.0 for strontium-90
   f. Method 908.0 for uranium
   g. Analysis for uranium shall be conducted only if gross alpha results for the same sample exceed 15 pCi/L, or beta greater than 50 pCi/L. If the uranium result is greater than 20 pCi/L, analysis for radium-226 & 228 shall be conducted. If the combined radium-226 & 228 exceeds 5 pCI/L, analyze for tritium and strontium-90.

End of Footnotes for Table E-2

4.2. Effluent Sediment Monitoring at Monitoring Location EFF-001

Effluent sediment monitoring is only required during years in which any exceedance occurs as described in Footnote a of the following table.

The effluent 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 sample the discharge at the discharge points

following final treatment, prior to the discharge entering the receiving water. The Discharger must collect sufficient effluent sample to provide an adequate amount of effluent sediments (suspended solids) for sediment analyses. The Discharger shall monitor sediment in discharges from Discharge Point 001 at Monitoring Location EFF-001 as follows.

Table E-3. Sediment Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Copper, TR	mg/kg	Grab	1/Year	a and b
Lead, TR	mg/kg	Grab	1/Year	a and b
Zinc, TR	mg/kg	Grab	1/Year	a and b
DDT	µg/kg	Grab	1/Year	a, b and c
PAHs	µg/kg	Grab	1/Year	a, b and d
Total PCBs	µg/kg	Grab	1/Year	a, b and e

Footnotes for Table E-3

a. Monitoring is only required during years in which a discharge occurs, and when sediment monitoring is triggered as specified in Footnote d to Table 4 of this Order. Sediment monitoring of the effluent shall begin during the first discharge event following the effluent exceedances. An effluent sediment monitoring result at or below the sediment effluent limitation (monitoring thresholds) in Table 5 of this Order demonstrates attainment with the monitoring thresholds and additional effluent sediment monitoring of the effluent is not required.

b. 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 Water 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.

c. Attachment A of 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) 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.

d. 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.

e. According to Attachment A of the Sediment Quality Plan, total PCBs (polychlorinated biphenyls) shall mean the sum of the following PCB congeners: 2,4'-dichlorobiphenyl, 2,2',5-trichlorobiphenyl, 2,4,4'-trichlorobiphenyl, 2,2',3,5'-tetrachlorobiphenyl, 2,2',5,5'-tetrachlorobiphenyl, 2,3',4,4'-tetrachlorobiphenyl, 2,2',4,5,5'- pentachlorobiphenyl, 2,3,3',4,4'-pentachlorobiphenyl, 2,3',4,4',5-pentachlorobiphenyl, 2,2',3,3',4,4'-hexachlorobiphenyl, 2,2',3,4,4',5'-hexachlorobiphenyl, 2,2',4,4',5,5'-hexachlorobiphenyl, 2,2',3,3',4,4',5-heptachlorobiphenyl, 2,2',3,4,4',5,5'-heptachlorobiphenyl, 2,2',3,4',5,5',6-heptachlorobiphenyl, 2,2',3,3',4,4',5,6-octachlorobiphenyl, 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl, and decachlorobiphenyl.

End of Footnotes for Table E-3

5. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

5.1. Chronic Toxicity

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

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

5.1.2. Sample Volume and Holding Time

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

5.1.3. 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 renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).

5.1.4. Species Sensitivity Screening

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

Rescreening is required at least once per twenty-four (24) months. The Discharger shall rescreen with the three species previously referenced 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 for a minimum of three (monthly testing), but not to exceed five suites.

During the calendar month, toxicity tests used to determine the most sensitive test species shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL and median monthly effluent limit (MMEL).

5.1.5. **Quality Assurance and Additional Requirements**

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

a. The discharge is subject to 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) statistical approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity/Implementation Document* (EPA 833-R-10-003, 2010). 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. T

b. The MMEL for chronic toxicity only applies when there is a discharge more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in “Fail”.

c. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method, then the Discharger must re-sample and re-test at the subsequent discharge event within 14 days.

d. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.). Monthly reference toxicant testing is sufficient.

e. All reference toxicant test results should be reviewed and reported according to EPA guidance on the evaluation of concentration-response relationships found in *Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing* (40 CFR part 136) (EPA 821-B-00-004, 2000)

f. 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.

g. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the Monitoring and Reporting Program and the rationale is explained in the Fact Sheet (Attachment F).

5.1.6. **Accelerated Monitoring Schedule for Median Monthly Summary Result: "Fail" (or Maximum Daily Single Result: "Fail and % Effect ≥ 50")**

The Maximum Daily single result shall be used to determine if accelerated testing needs to be conducted.

Within 24 hours of the time the Discharger becomes aware of this result, the Discharger shall implement an accelerated monitoring schedule within five calendar days of the receipt of the result. However, if the sample is contracted out to a commercial laboratory, the Discharger shall ensure that the first of four accelerated monitoring tests is initiated within seven calendar days of the Discharger becoming aware of the result or at the next discharge event if no discharge occurs within seven days. The accelerated monitoring schedule shall consist of a five concentration dilution series which includes the control with five dilutions, one of which must be the IWC, conducted at approximately two-week intervals, over an eight-week period; in preparation for the Toxicity Reduction Evaluation (TRE) process and associated reporting. If each of the accelerated toxicity tests results in "Pass", the Permittee shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in "Fail," the Permittee shall immediately implement the TRE Process conditions set forth below.

5.2. **Preparation of an Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan**

The Discharger shall prepare and submit a copy of the Discharger's initial investigation TRE work plan to the Executive Officer of the Los Angeles Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The Discharger shall use the *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, 1989), or the most current version, as guidance. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum, the TRE Work Plan must describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum the work plan shall include:

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

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

c. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

5.3. **Toxicity Reduction Evaluation (TRE) Process**

5.3.1. **Preparation and Implementation of Detailed TRE Work Plan.** The Discharger shall immediately initiate a TRE and, within 30 days, submit to the Executive Officer a Detailed TRE Work Plan, which shall follow the generic Initial Investigation TRE Work Plan revised as appropriate for this toxicity event. It shall include the following information, and comply with additional conditions set by the Executive Officer:

a. Further actions by the Discharger to investigate, identify, and correct the causes of toxicity.

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

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

5.3.2. **TIE Implementation.** The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, U.S. 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.

5.3.3. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and stormwater 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.

5.3.4. The Discharger shall continue to conduct routine effluent monitoring for compliance determination purposes while the TIE and/or TRE is taking place. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.

5.3.5. The Los Angeles Water Board and U.S. EPA recognize 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.

5.3.6 The Board may consider the results of any TIE/TRE studies in an enforcement action.

5.4. **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 called Report Preparation, including:

5.4.1. The toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent (%) Effect” at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-4.

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

5.4.3 The statistical analysis used in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010) Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1.

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

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

5.4.6. Any additional QA/QC documentation or any additional chronic toxicity related information, upon request by Los Angeles Water Board staff.

6. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

7. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

8. RECEIVING WATER MONITORING REQUIREMENTS

8.1. Surface Water – Monitoring Location RSW-001

Table E-4. Receiving Water Monitoring Requirements for RSW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
pH	pH units	Grab	1/Quarter	a and b
Temperature	ºF	Grab	1/Quarter	a and b
Salinity	parts per thousand (ppt)	Grab	1/Quarter	a and b
Turbidity	NTU	Grab	1/Quarter	b
Dissolved Oxygen	mg/L	Grab	1/Quarter	b
Ammonia, Total (as N)	mg/L	Grab	1/Quarter	b

Total Coliform	CFU or MPN/100mL	Grab	5/Quarter	b & c
Enterococci	CFU or MPN/100mL	Grab	8/Year	b & d
Priority Pollutants	µg/L	Grab	1/Year	b and e

Footnotes for Table E-4

a. Receiving water pH, temperature, and salinity must be analyzed concurrent with effluent ammonia monitoring.

b. Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; for priority pollutants, the methods must meet the lowest MLs specified in Appendix 4 of the SIP. Where no methods are specified for a given pollutant, the methods must be approved by the Los Angeles Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select a sufficiently sensitive method from the listed methods and corresponding ML necessary to demonstrate compliance with applicable effluent limitations.

c. Not less than five (5) samples shall be taken equally spaced over a 30-day period with the first sample taken in the monitoring month for the required quarter.

d. For each annual sampling event, 8 consecutive weekly samples shall be collected, and the results shall be used to calculate the 6-week rolling geometric mean. The 6-week rolling geometric mean shall be calculated each week for enterococci using results from samples collected during the 8-week period ending on that week. Regardless of whether there are sufficient samples to calculate the geometric mean, the weekly results shall be reported in the corresponding quarterly monitoring report.

e. Priority Pollutants are those constituents referred to in 40 CFR part 131 or the California Toxics Rule.

End of Footnotes for Table E-4

8.2. Groundwater Monitoring – Not Applicable

8.3. Harbor Toxics TMDL Water Column, Sediment and Fish Tissue Monitoring for Greater Los Angeles and Long Beach Harbor Waters

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 the Long Beach Inner Harbor. The Discharger may continue participation in a collaborative group, start a new collaboration group, or develop site-specific plan comply with this requirement. Details on these requirements are provided in section 6.3.2 of this Order.

9. OTHER MONITORING REQUIREMENTS

9.1. Chemical Use Report

9.1.2. The Discharger shall submit, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect the waste discharge, including quantities of each.

9.1.3. The Discharger shall monitor the chemicals used in the facility. Prior to any change in the use of chemicals at the facility the Discharger must inform the Los

Angeles Water Board. No changes in the type or amount of chemicals added to the process water shall be made without the written approval of the Los Angeles Water Board's Executive Officer. To comply with this provision, the Discharger must submit a complete report of the change to the Los Angeles Water Board before the proposed date of change. This requirement does not apply to changes of chemical brand names where the chemical composition and Material Safety Data Sheet (MSDS) information for the new brand is essentially identical to the previous chemical used. The change in brand or manufacturer with a copy of the new MSDS sheet need only be reported to the Los Angeles Water Board in the Discharger's quarterly DMRs.

9.2. **Visual Monitoring**

9.2.1. A visual observation station shall be established in the vicinity of the discharge point to the receiving water, Long Beach Inner Harbor.

9.2.2. General observations of the receiving water shall occur once during receiving water monitoring at a time when the Facility is discharging. All receiving water observations shall be reported in the quarterly monitoring report. Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials apparent. The following observations shall be made:

a. Time, and date of monitoring
b. Weather conditions
c. Color of water
d. Appearance of oil films or grease, or floatable materials
e. Extent of visual turbidity or color patches
f. Direction of flow
g. Description of odor, if any, of the receiving water
h. Presence and activity of California Least Tern and California Brown Pelican

9.3. **Rainfall Monitoring**

The Discharger shall measure and record the rainfall on each day of the month at the Facility. If no rainfall measurement data is available at the Facility, the Discharger may submit data obtained from the nearest city/county operated rain gauge monitoring station. The location of the rain gauge utilized and the distance from the Facility and any other information shall be included in the monitoring report for that month.

10. REPORTING REQUIREMENTS

10.1. **General Monitoring and Reporting Requirements**

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

10.1.2. 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.

10.1.3. If the Discharger monitors (other than for process/operational control, startup, research, or equipment testing) any influent, effluent, or receiving water constituent more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the monitoring report. These results shall be reflected in the calculation of the average (or median) used in demonstrating compliance with this Order/Permit.

10.1.4. 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.

10.1.5. Quarterly analyses shall be performed during the months of February, May, August, and November. Semi-annual analyses shall be performed during the months of February and August. Annual analyses shall be performed during the month of August. Should there be instances when monitoring could not be done during these specified months, the Discharger must notify the Los Angeles Water Board, state the reason why the monitoring could not be conducted, and obtain approval from the Executive Officer for an alternate schedule. Results of annual analyses shall be reported in the quarterly monitoring report following the analysis.

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

10.1.7. The Discharger shall report the results of chronic toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, Section 5.1.

10.1.8. 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 Web site will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

10.2. **Self-Monitoring Reports (SMRs)**

10.2.1. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections 3-9. 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.

10.2.2. 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
Continuous	Permit Effective Date	All	Submit with corresponding quarterly SMR
Daily	Permit Effective Date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with corresponding quarterly SMR
Monthly	Permit Effective Date	1st day of calendar month through last day of calendar month	Submit with corresponding quarterly SMR
Quarterly	Permit Effective Date	January 1 – March 31 April 1 – June 30 July 1 – September 30 October 1 – December 31	May 1 August 1 November 1 February 1
Semiannually	Permit Effective Date	January 1 – June 30 July 1 – December 31	Submit with corresponding quarterly SMR for August 1 and February 1
Annually	Permit Effective Date	January 1 through December 31	Submit with corresponding quarterly SMR for February 1

10.2.3. **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 CFR 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.

10.2.4. **Compliance Determination.** Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above, and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Los Angeles 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).

10.2.5. **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 and 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.

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

1. 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.
2. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements; 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.

10.3. Discharge Monitoring Reports (DMRs) – Not Applicable

10.4. Other Reports

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

a. Initial Investigation TRE Workplan

b. Updated Stormwater Pollution Prevention Plan (SWPPP)

c. Updated Best Management Practices Plan (BMPP)

d. Updated Spill Contingency Plan (SCP)

The SWPPP, BMPP and SCP status shall be reviewed at a minimum once per year and updated as needed to ensure all actual or potential sources of trash and pollutants in wastewater and stormwater discharges from the facility are addressed. All changes or revisions to the SWPPP, BMPP and SCP shall be submitted to the Los Angeles Water Board within 30 days of any revisions.

10.4.2. Per the Harbor Toxics TMDL, the Discharger shall submit an annual monitoring/implementation report to the Los Angeles Water Board. The report shall describe the measures implemented and the progress achieved toward meeting the assigned WLAs. The annual report shall be received by the Los Angeles Water Board by the specified date in the proposed Monitoring Plan.

10.4.3. Within 12 months from the effective date of this Order, the Discharger is required to submit a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan) to assess and manage climate change related effects associated with the Facility operation, water supplies, collection system, water quality and beneficial uses.

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section 2.2 of this Order, the Los Angeles Water Board incorporates this Fact Sheet as findings of the Los Angeles 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.

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility:

Table F-1. Facility Information

WDID	4B192111002
Discharger	Long Beach Generation LLC
Name of Facility	Long Beach Generating Station
Facility Address	2665 Pier S Lane Long Beach, CA 90802 Los Angeles County
Facility Contact, Title and Phone	Robert Suida, Plant Manager, (562) 506-2552
Authorized Person to Sign and Submit Reports	Same as above
Mailing Address	2665 Pier S Lane, Long Beach, CA 90802
Billing Address	Same as above
Type of Facility	Electric Power Generation (SIC Code 4911)
Major or Minor Facility	Minor
Threat to Water Quality	3
Complexity	B
Pretreatment Program	NA
Recycling Requirements	NA
Facility Permitted Flow	4.3 million gallons per day (MGD)
Facility Design Flow	4.3 MGD
Watershed	Dominguez Channel and Los Angeles Harbor/Long Beach Harbor WMA
Receiving Water	Long Beach Inner Harbor (Back Channel)
Receiving Water Type	Enclosed Bay

1.1. Long Beach Generation, LLC (hereinafter Discharger) is the owner and operator of the Long Beach Generating Station (hereinafter Facility), an electric power generation facility. For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

1.2. The Facility discharges wastewater consisting of groundwater from dewatering systems, stormwater, and intermittent low volume wastes to the Back Channel of the Long Beach Harbor (a segment of the Long Beach Inner Harbor), a water of the United States. The discharge was previously regulated by Order R4-2016-0121, which was adopted on March 10, 2016 and expired on April 30, 2021. Federal regulations at 40 CFR section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. However, pursuant to 40 CFR section 122.6 and California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued if the discharger complies with all federal NPDES requirements for continuation of expired permits. As explained below, the Discharger complied with these requirements and the terms and conditions of Order R4-2016-0121 were administratively continued pending reissuance of the permit.

1.3. The Discharger filed a report of waste discharge (ROWD) and submitted an application for renewal of its WDRs and NPDES permit on October 20, 2020. Supplemental information was received on February 11, 2021. The submittal of an ROWD prior to the expiration of Order R4-2016-0121 satisfied compliance with federal NPDES requirements for continuation of expired permits. Therefore, pursuant to 40 CFR section 122.6 and California Code of Regulations, title 23, section 2235.4 the Los Angeles Water Board administratively extended the terms and conditions of Order R4-2016-0121 pending reissuance of the permit. A pre-requirement inspection was conducted on August 10, 2021, and September 22, 2021, to observe operations and collect additional data to develop permit limitations and conditions.

1.4. Federal regulations at 40 CFR section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. However, pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance o the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

2. FACILITY DESCRIPTION

The Facility is an electric power generating station consisting of four gas-fueled electric generating units. The Facility contains two switchyards, a boiler room, a gas turbine room, and a steam turbine room. The Facility currently operates four combustion turbine generators (CTG) to generate up to 260-megawatts (MW) of energy for the region's power grid during peak energy demand. Each CTG provides a nominal 65 MWs of power. Referred to as Units 1 – 4, these CTGs are a refurbishment of a set of existing CTGs which were retired from service on January 1, 2005, along with five other units. The Facility previously operated a once-through cooling system, serving Units 1-9. In October 2007, the once-through cooling system utilized by the retired steam turbines was abandoned by plugging the intake and outfall tunnels. These changes eliminate the possible discharges of the once-through cooling water.

2.1. **Description of Wastewater and Biosolids Treatment and Controls**

Wastewater sources are primarily groundwater from a dewatering system, stormwater, in-plant low volume wastes from floor drains and air pollution control equipment, and fire test water. All wastewater and stormwater at the site are conveyed to a wastewater

treatment system. In addition, under the asset sale agreement in 1998, the Facility continues to allow groundwater and stormwater originating from the nearby Zenith Energy West Coast Terminals LLC's tank farm and Southern California Edison's high voltage electrical switchyards to be discharged through the Facility's outfall. From May 1, 2016, to June 30, 2020, the estimated average flow of Discharge 001 was 0.483 MGD with an estimated maximum flow of 3.994 MGD. The maximum design flow of Discharge 001 is 4.3 MGD.

2.1.1. **Low Volume Wastes**

Low volume waste sources at the site include small amounts of water from air humidification systems, air conditioner condensate, housekeeping, and fire test water. Deionized (DI) water is injected into the air intake for the CTGs. Normally, any DI water is evaporated and does not produce a wastewater. However, small amounts of wastewater may drip onto the floor and enter the low volume waste stream via floor drains inside the power block. Condensate from air conditioners for the building drains into sumps. Fire hydrants are tested quarterly, and water is discharged to the storm drain nearest each fire hydrant. Low volume waste flows are intermittent and negligible. The floor drains gravity flow to one of three concrete sumps. Wastewater is pumped to a fourth concrete sump and then pumped to the wastewater treatment system. The storm drains flow to one of eight concrete sumps, which are then pumped to the WWTS. Sump pumps are automatic, level-actuated, with manual override.

2.1.2. **Groundwater**

The site is located approximately 20 feet below sea level. As a result, the Facility operates a dewatering system. Groundwater extraction "straws" (pipelines) are placed around the perimeter of the site and vacuum extraction pumps move groundwater to the wastewater treatment system.

2.1.3. **Stormwater**

Stormwater from the site and from the adjacent Southern California Edison switchyards and the Zenith Energy West Coast Terminals LLC tank farm is conveyed to the retention basin and then treated in the wastewater treatment system. During the previous permit term, a portion of stormwater was diverted around the treatment system and discharged to the receiving water through Discharge Point 001 during a number of precipitation events. Over the past permit term, a temporary and partial bypass of wastewater occurred approximately annually, when storm events occurred that exceeded the wastewater treatment system capacity, thereby averting the flooding of the critical electricity generating station. Standard operating procedures are in place to ensure that the first flush from any storm event is captured and goes through the treatment system prior to discharge. The bypasses occurred intermittently during multi-day storm events in December 2016, January and February 2017, December 2018, January and February 2019, and March and April 2020. An electronic mail notification was sent to LARWQCB within 24-hours of each event.

Based on the frequency of these bypass events during the previous permit term and water quality data collected during the bypass events, this Order prohibits any bypass events of wastewater except as authorized in 40 CFR 122.4(m)(4)(i), and requires the Discharger to evaluate the avoidability of bypass events and feasible alternatives to ensure the prevention of elevated levels of constituents and effluent limit exceedances caused by annual bypass events. Detailed requirements for the evaluation are included in Attachment G of this Order.

2.2. Wastewater Treatment System

The wastewater treatment system is comprised of an approximately 800,000-gallon elevated concrete retention basin, oil-water separator, surge tank, media filtration, carbon, and ion-exchange resin. Low volume wastes, stormwater runoff, and groundwater are pumped to the retention basin and then to the wastewater treatment system.

The retention basin has a high-density polyethylene liner. Incoming water is discharged to the south inlet chamber, which is separated from the basin by bottom flow and overflow weirs containing a 2-foot gate for drainage of the chamber. The north outlet chamber is also separated from the basin by bottom flow and overflow weirs. The basin is divided down the center, so the water in each half can be isolated and drained for maintenance. Solids are removed from the basin approximately once every 2 to 3 years. The inlet to the retention basin consists of several pipes, which discharge into a vault/box with weirs. The outlet chamber is equipped with two pumps and level switches, which pump the water to the treatment system. Several water jets, affixed along the rim of the basin, can spray recirculated basin water to provide aeration for control of algae, but that system is not operated in favor of black, high-density polyethylene spheres or shade balls cover the surface of the basin to maintain cooler water temperatures and reduce the formation of algae.

Effluent from the basin flows to an oil water separator and then to a holding (surge) tank. For ammonia removal, a sodium hypochlorite solution is injected into the wastewater stream just prior to entering the oil water separator. A surge tank is used for flow and concentration modulation, normalizing the water flow rate from the oil water separator prior to entering the rest of the treatment processes. The surge tank has a 10,000-gallon capacity and is equipped with multiple level controllers and alarms to control the overall operation of the variable feed pumps and remaining treatment processes.

From the surge tank, the variable speed feed pumps send wastewater into a solids filtration system composed of two separate filtration units: a sand filter unit and a bag filter unit. Wastewater is initially subjected to the media filter unit, which consists of eight sand media vessels. Each vessel contains rounded rock for support media, and a layer of garnet sand an anthracite for filtration. The media filter removes the bulk of suspended particles remaining in the wastewater. The media filter is intended to remove particles 10 – 15 micron (µm) or larger in size. Accumulated particles in the vessels of the media filters are removed through an automated backwash process, which conveys water concentrated with suspended solids back to the basin for precipitation/settle. The bag filter unit captures the

remaining fine particulates to prevent clogging or damages to the downstream units.
Wastewater is then processed through a series of granular activated carbon (GAC) and resin vessels. The GAC vessels are set up in two series; the two coconut GAC followed by the two catalytic GAC. Each vessel has an approximate volumetric capacity of 9,000 gallons and is equipped with pressure indicators to identify potential clogging of the vessels. The GAC units primarily reduce total petroleum hydrocarbon (TPH), chlorine, and monochloramine concentrations that may be in the wastewater. The resin vessels are intended to reduce the metal concentrations found in the extracted groundwater. Following ion exchange, treated wastewater is monitored at a valve located prior to Discharge Point 001.

2.3. **Discharge Points and Receiving Waters**

The Facility is permitted to discharge up to 4.3 MGD of wastewater to the Back Channel of the Long Beach Harbor (a part of Long Beach Inner Harbor), an enclosed bay within a distinct harbor works area ,a water of the United States, through Discharge Point 001 located at 33.764722 º North, 118.221389 º West.

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

Effluent limitations contained in the existing Order for discharges from Discharge Point 001 (Monitoring Location EFF-001) and representative monitoring data from the term of the previous Order are as follows:

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

Parameter	Units	Average Monthly Effluent Limitation	Maximum Daily Effluent Limitation	Highest Average Monthly Discharge	Highest Daily Discharge	Notes
BOD_5 @ 20ºC	mg/L	20	30	3.9	11	--
Oil and Grease	mg/L	10	15	6.1	6.5	--
pH	s.u.	--	6.5 – 8.5	--	7.0 – 8.3	a
Total Suspended Solids	mg/L	50	75	44	798	--
Settleable Solids	mL/L	0.1	0.3	0.2	0.7	--
Turbidity	NTU	50	75	106	240	--
Temperature	ºF	--	86	--	86	b
Ammonia Nitrogen, Total (as N)	mg/L	0.73	1.8	1.9	3.6	--
Total Residual Chlorine	mg/L	--	0.1	--	0.07	b
Copper, TR	µg/L	2.7	6.8	52	104	--
Lead, TR	µg/L	6.0	16	9.9	19.8	--

Parameter	Units	Average Monthly Effluent Limitation	Maximum Daily Effluent Limitation	Highest Average Monthly Discharge	Highest Daily Discharge	Notes
Nickel, TR	µg/L	6.3	15	141	282	--
Zinc, TR	µg/L	59	158	143	285	--
TCDD Equivalents	µg/L	1.4×10^{-8}	2.8×10^{-8}	7.8×10^{-6}	7.8×10^{-6}	--
4,4'-DDT	µg/L	0.00059	0.0012	0.0019	0.0019	--
PCBs	µg/L	0.00017	0.00034	0.15	0.15	--
Benzo(a) Pyrene	µg/L	0.049	--	0.072	--	c
Chrysene	µg/L	0.049	--	0.057	--	c
Chronic Toxicity	Pass or Fail, % Effect	Pass	Pass or % Effect <50	Fail (15 out of 85 tests)	Maximum Percent effect of 100%	--

Footnotes for Table F-2

a. Instantaneous Minimum/Maximum
b. Instantaneous Maximum
c. Performance Goal

End of Footnotes for Table F-2

2.5. Compliance Summary

Data submitted to the Los Angeles Water Board during the effective term of Order No. R4-2016-0121 (from April 2016 through March 2021) indicate that the Discharger has exceeded numeric effluent limitations for dischargers from Discharge Point 001 (Monitoring location EFF-001) as outlined in the table below:

Table F-3. Summary of Compliance History

Violation Date	Type of Limitation	Parameter	Reported Value	Effluent Limit	Units	Notes
1/17/2019	Daily Maximum	Chronic Toxicity	Fail and 88% Effect	Pass or % Effect <50	Pass or Fail, % Effect	--
12/6/2018	Daily Maximum	Chronic Toxicity	Fail and 31% Effect	Pass or % Effect <50	Pass or Fail, % Effect	--
1/19/2017	Daily Maximum	Chronic Toxicity	Fail and 76% Effect	Pass or % Effect <50	Pass or Fail, % Effect	--

1/31/2017	Monthly Median	Chronic Toxicity	Fail	Pass or % Effect <50	Pass or Fail, % Effect	--
8/15/2016	Daily Maximum	Chronic Toxicity	Fail and 53.81% Effect	Pass or % Effect <50	Pass or Fail, % Effect	--
8/30/2016	Daily Maximum	Chronic Toxicity	Fail and 50.81% Effect	Pass or % Effect <50	Pass or Fail, % Effect	--
8/31/2016	Monthly Median	Chronic Toxicity	Fail	Pass or % Effect <50	Pass or Fail, % Effect	--
11/29/2016	Monthly Median	Chronic Toxicity	Fail	Pass or % Effect <50	Pass or Fail, % Effect	--
11/29/2016	Daily Maximum	Chronic Toxicity	Fail and 90% Effect	Pass or % Effect <50	Pass or Fail, % Effect	--
10/18/2016	Monthly Median	Chronic Toxicity	Fail	Pass or % Effect <50	Pass or Fail, % Effect	--
10/18/2016	Daily Maximum	Chronic Toxicity	Fail and 100% Effect	Pass or % Effect <50	Pass or Fail, % Effect	--
10/4/2016	Monthly Median	Chronic Toxicity	Fail	Pass or % Effect <50	Pass or Fail, % Effect	--
10/4/2016	Daily Maximum	Chronic Toxicity	Fail and 46% Effect	Pass or % Effect <50	Pass or Fail, % Effect	--
10/18/2016	Daily Maximum	Chronic Toxicity	Fail and 100% Effect	Pass or % Effect <50	Pass or Fail, % Effect	--
9/6/2016	Daily Maximum	Chronic Toxicity	Fail and 39.62% Effect	Pass or % Effect <50	Pass or Fail, % Effect	--
2/3/2017	Daily Maximum	Copper, TR	104	6.8	µg/L	a
1/9/2017	Daily Maximum	Copper, TR	13.6	6.8	µg/L	a
1/19/2017	Daily Maximum	Copper, TR	10.1	6.8	µg/L	a
2/3/2017	Daily Maximum	Copper, TR	0.76	0.24	lb/day	a
2/28/2017	Monthly Average	Copper, TR	0.38	0.097	lb/day	a

2/28/2017	Monthly Average	Copper, TR	52	2.7	µg/L	a
1/31/2017	Monthly Average	Copper, TR	8.2	2.7	µg/L	a
12/6/2018	Daily Maximum	Copper, TR	31.8	6.8	µg/L	a
12/6/2018	Daily Maximum	Copper, TR	0.55	0.24	µg/L	a
2/14/2019	Daily Maximum	Copper, TR	10.3	6.8	µg/L	a
12/22/2016	Daily Maximum	Copper, TR	0.29	0.24	lb/day	a
2/28/2017	Monthly Average	Lead, TR	9.9	6.0	µg/L	a
2/3/2017	Daily Maximum	Lead, TR	19.8	16	µg/L	a
2/28/2017	Monthly Average	Nickel, T R	141	6.3	µg/L	a
2/3/2017	Daily Maximum	Nickel, TR	282	15	µg/L	a
2/3/2017	Daily Maximum	Nickel, T R	2.06	0.54	lb/day	a
1/31/2017	Monthly Average	Zinc, TR	108	59	µg/L	a
2/28/2017	Monthly Average	Zinc, TR	143	59	µg/L	a
2/3/2017	Daily Maximum	Zinc, TR	285	158	µg/L	a
1/31/2017	Monthly Average	Ammonia, Total (as N)	1.9	0.73	µg/L	a
1/9/2017	Daily Maximum	Ammonia, Total (as N)	2	1.8	µg/L	a
11/30/2016	Monthly Average	Ammonia, Total (as N)	1.4	0.73	µg/L	--
11/1/2016	Daily Maximum	Ammonia, Total (as N)	2.1	1.8	µg/L	--
11/10/2016	Daily Maximum	Ammonia, Total (as N)	2.4	1.8	µg/L	--
11/22/2016	Daily Maximum	Ammonia, Total (as N)	2.8	1.8	µg/L	--
1/31/2017	Monthly Average	Settleable Solids	0.2	0.1	µg/L	a
1/9/2017	Daily Maximum	Settleable Solids	0.7	0.3	µg/L	a
1/31/2017	Monthly Average	TSS	90	50	mg/L	a
1/9/2017	Daily Maximum	TSS	179	75	mg/L	a
1/19/2017	Daily Maximum	TSS	90	75	mg/L	a
12/22/2016	Daily Maximum	TSS	242	75	mg/L	a

1/31/2017	Monthly Average	Turbidity	106	50	NTU	a
2/14/2017	Monthly Average	Turbidity	85	50	NTU	a
1/9/2017	Daily Maximum	Turbidity	240	75	NTU	a
1/19/2017	Daily Maximum	Turbidity	77	75	NTU	a
2/3/2017	Daily Maximum	Turbidity	170	75	NTU	a
1/31/2017	Monthly Average	TCDD Equivalents	2.7×10^{-8}	5.0×10^{-10}	lb/day	a
12/22/2016	Daily Maximum	TCDD Equivalents	2.6×10^{-8}	1.0×10^{-9}	lb/day	a
12/22/2016	Monthly Average	TCDD Equivalents	3.6×10^{-8}	5.0×10^{-10}	lb/day	a
12/22/2016	Daily Maximum	TCDD Equivalents	3.6×10^{-8}	1.0×10^{-9}	lb/day	a
12/31/2016	Monthly Average	TCDD Equivalents	1.1×10^{-5}	1.4×10^{-8}	µg/L	a
12/31/2016	Monthly Average	TCDD Equivalents	2.6×10^{-8}	5.0×10^{-10}	lb/day	a
1/31/2017	Monthly Average	TCDD Equivalents	7.8×10^{-6}	1.4×10^{-8}	µg/L	a
1/31/2017	Daily Maximum	TCDD Equivalents	7.6×10^{-8}	1.0×10^{-9}	lb/day	a
1/9/2017	Daily Maximum	TCDD Equivalents	7.8×10^{-6}	2.8×10^{-8}	µg/L	a
1/9/2017	Daily Maximum	TCDD Equivalents	7.8×10^{-6}	2.8×10^{-8}	µg/L	a
12/6/2018	Daily Maximum	TCDD Equivalents	4.4×10^{-6}	2.8×10^{-8}	µg/L	a
12/6/2018	Daily Maximum	TCDD Equivalents	7.6×10^{-8}	1.0×10^{-9}	lb/day	a
12/31/2018	Monthly Average	TCDD Equivalents	$4.4 \text{ X } 10^{-6}$	1.4×10^{-8}	µg/L	a
12/31/2018	Monthly Average	TCDD Equivalents	7.6×10^{-8}	5.0×10^{-10}	lb/day	a
12/22/2016	Daily Maximum	TCDD Equivalents	10.5×10^{-6}	2.8×10^{-8}	µg/L	a
1/17/2019	Daily Maximum	TCDD Equivalents	1.2×10^{-8}	1.0×10^{-9}	lb/day	a
1/31/2019	Monthly Average	TCDD Equivalents	1.2×10^{-6}	1.4×10^{-8}	µg/L	a

1/31/2019	Monthly Average	TCDD Equivalents	1.2×10^{-8}	5.0×10^{-10}	lb/day	a

Footnotes for Table F-3

a. Exceedances noted with an "a" are associated with a bypass event.

End of Footnotes for Table F-3

To address the violations listed in the table above the Los Angeles Water Board issued Settlement Offer No. R4-2021-0137 on November 30, 2021 for expedited payment of mandatory minimum penalties. For the violations listed other than the violations for ammonia, Long Beach Generating Station, LLC contests the violations based on the affirmative bypass defense set forth in section I.G.3. of Attachment D to Order R4-2016-0121. Long Beach Generating Station, LLC provided evidence in a letter submitted on December 29, 2021. The Los Angeles Water Board is currently evaluating the information provided. To address the reported ammonia exceedances, the discharger replaced the in-line chlorine mixer, and the chlorine pump was switched from the primary pump to the backup pump. The primary injection pump was found to have an internal cracked seal and was replaced on November 30, 2016. Since November 30, 2016, the Discharger was in compliance with ammonia except during the bypass events. In 2016 chronic toxicity results were reported as "Fail" multiple times. In December 2016, the Discharger submitted the required TRE/TIE workplan, and conducted a TRE. In April 2017 the Discharger reported that the TRE process results was inconclusive for the failed toxicity testing results that occurred in 2016. The Discharger also reported toxicity testing results as "Fail" in 2017 and on two separate occasions in 2018 and in 2019. The Discharger did not initiate any accelerated monitoring for the failed toxicity for these three years of results.

Based on the annual frequency of precipitation-related bypass events during the previous permit term and water quality data collected during the bypass events, this Order requires the Discharger to evaluate the avoidability of bypass events and feasible alternatives to ensure the prevention of elevated levels of constituents and effluent limit exceedances caused by bypass events. Detailed requirements for the evaluation are included in Attachment G of this Order.

2.6. **Planned Changes**

The Discharger does not anticipate any changes to processes or operations during the term of this Order.

3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

3.1. **Legal Authorities**

This Order 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. EPA and chapter 5.5, division 7 of

the Water Code (commencing with section 13370). It shall serve as a NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 of the Order subject to the WDRs in this Order.

3.2. 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 CEQA (commencing with section 21100) of Division 13 of the Public Resources Code. See also *County of Los Angeles v. State Water Resources Control Board* (2006) 143 Cal.App.4th 985, 1007.

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

3.3.1. **Water Quality Control Plan.** The Water Quality Control Plan (Basin Plan) for the Los Angeles Water Board designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to Long Beach Inner Harbor are as follows:

Table F-4. Basin Plan Beneficial Uses

Discharge Points	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 rare, threatened, or endangered species (RARE) Potential: Water contact recreation (REC-1), shellfish harvesting (SHELL)

3.3.2. **Thermal Plan.** Requirements of this Order implement the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan). The State Water Board adopted the Thermal Plan on January 7, 1971 and amended this plan on September 18, 1975 (Resolution No. 75-89). The Thermal Plan states “elevated temperature waste discharges shall comply with limitations necessary to assure protection of beneficial uses” for existing discharges into enclosed bays.

Los Angeles Water Board staff prepared a study entitled, *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region* (White Paper) that evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel; typical aquatic life species present in tidal estuaries and enclosed bays

in the Los Angeles Region. A maximum effluent temperature limitation of 86°F was determined to be appropriate for protection of aquatic life.

This Order establishes the effluent limitation of 86°F consistent with the Thermal Plan maximum temperature threshold to protect the beneficial uses.

3.3.3. **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. The State Water Board amended the plan in 2011 and 2018. 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.

3.3.5. **Bacteria Provisions.** On August 7, 2018, the State Water Board adopted Resolution No. 2018-0038, adopting bacteria provisions and water quality variance policy as (1) Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE); and (2) an amendment to the Water Quality Control Plan for Ocean Waters of California. The bacteria provisions established new statewide numeric water quality objectives for bacteria to protect water contact recreation (REC-1) based on U.S. EPA's 2012 Recreational Criteria. The statewide numeric objectives supersede any numeric water quality objective for bacteria for the REC-1 beneficial use contained in Regional Water Boards' water quality control plans, but they do not affect any existing narrative bacteria objectives. Resolution No. 2018-0038 was approved by the Office of Administrative Law on February 4, 2019 and U.S. EPA on March 22, 2019.

On February 13, 2020, the Los Angeles Water Board adopted Resolution Number R20-001, "*Amendments to the Water Quality Control Plan for the Los Angeles Region to Update the Bacteria Objectives for Fresh, Estuarine and Marine Waters Designated for Water Contact Recreation, based on the Statewide Bacteria Provisions"* This Resolution amends the Water Quality Control Plan for the Los Angeles Region (Basin Plan) to update the numeric bacteria objectives for fresh, estuarine, and marine waters designated for water contact recreation, based on the Statewide Bacteria Provisions.

On May 19, 2020, R20-001 was approved by the State Water Resources Control Board under State Board Resolution R2020-0017 including the Basin Plan Amendment under R20-001. On June 22, 2021, State Board Resolution R2020-0017 was approved by OAL (File number: 2021-0512-01S).

The Long Beach Inner Harbor – Back Channel has potential REC-1 and SHELL beneficial uses. This Order establishes receiving water bacteria limits to protect those beneficial uses.

3.3.6. **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, which is codified in 40 CFR section 131.38. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain federal water quality criteria for priority pollutants applicable to all surface waters in California.

3.3.7. **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 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.

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

3.3.9. **Antidegradation Policy.** Federal regulation 40 CFR 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 Los Angeles 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 CFR section 131.12 and State Water Board Resolution 68-16. Requirements of this Order implement federal and state antidegradation policies as described in section 4.4.2 of this Fact Sheet.

3.3.10. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR 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. Requirements of this Order implement federal anti-backsliding requirements as described in section 4.4.1 of this Fact Sheet.

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

3.3.12. **Mercury Provisions.** The State Water Board adopted *"Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California- Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions"* (Mercury Provisions) through Resolution 2017-0027, which was approved by OAL on June 28, 2017, and became effective upon U.S. EPA approval on July 14, 2017. The Mercury Provisions established one narrative and four numeric water quality objectives for mercury and three new beneficial use definitions, implemented through NPDES permits issued pursuant to CWA section 402, waste discharge requirements, or waivers of waste discharge requirements. The Mercury Provisions included specific implementation provisions for individual non-stormwater NPDES permits for industrial dischargers and stormwater discharges regulated by the Industrial General Permit. Because this discharge is comprised of non-stormwater (groundwater seepage and intermittent low volume wastewater) and stormwater discharges, this Order implements the requirements in the Mercury Provisions for individual non-stormwater NPDES permits for industrial dischargers by including effluent limits for mercury. Further, this Order requires monitoring for mercury in Attachment E with the new detection limit of 0.5 ng/L, which the Mercury Provisions specify as a quantification limit for the water samples.

3.3.14. **Trash Amendments.** The State Water Board adopted the "*Amendment to the Ocean Plan and Part I Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California*" (Trash Amendments) through Resolution Number 2015-0019, which was approved by the Office of Administrative Law (OAL) on December 2, 2015, and became effective upon U.S. EPA approval on January 12, 2016. The Trash Amendments established a narrative water quality objective and a prohibition on the discharge of trash, to be implemented through permits issued pursuant to CWA section 402(p), waste discharge requirements, or waivers of waste discharge requirements.

The Trash Amendments are applicable to the Long Beach Inner Harbor. This Order implements the requirements of the Trash Amendments through the prohibition of trash discharges to Discharge Point 001. The Trash Amendments

did not prescribe specific monitoring and reporting requirements for individual NPDES permittees; however, due to similarity of the Facility's discharge with facilities enrolled under the Statewide General Permit for Storm Water Discharges Associated with Industrial Activities, Order No. 2014-0057-DWQ as amended (CAS000001 or Industrial General Permit), this Order includes monitoring and reporting requirements similar to those required of the Industrial General Permit Permittees. This Order requires the Discharger to update and implement a Storm Water Pollution Prevention Plan (SWPPP), which shall include specific BMPs used as storm water control measures that the Discharger will undertake to prevent the discharge of trash from the Facility to the Long Beach Inner Harbor. The Discharger is also required to review and, if required, update and submit to the Los Angeles Water Board specific BMPs (storm water control measures) employed to control and prohibit the discharge of trash and other pollutants from the Facility through Discharge Point 001 consistent with the monitoring and reporting requirement of the Trash Amendments.

3.4. **Impaired Water Bodies on the CWA section 303(d) List**

The State Water Board adopted the California 2014 and 2016 Integrated Report based on a compilation of the Regional Water Boards' Integrated Reports. These Integrated Report contain both the Clean Water Act (CWA) section 305(b) water quality assessment and section 303(d) list of impaired waters. In developing the Integrated Reports, the Water Boards solicit data, information, and comments from the public and other interested persons. On October 3, 2017, the State Water Board approved the CWA Section 303(d) List portion of the State's 2014 and 2016 Integrated Report (State Water Board Resolution Number 2017-0059). On April 06, 2018, U.S. EPA approved California's 2014 and 2016 Integrated Report. The CWA section 303(d) list can be found at the following link:

https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml

The Long Beach Inner Harbor is on the 303(d) list. The following pollutants/stressors, from point and non-point sources, were identified as impacting the receiving waters:

Long Beach Inner Harbor—Calwater 40518000, USGS HUC 18070104

Pollutants: Toxicity, Benthic Community Effects, Chlordane, Dieldrin, DDT, PCBs, Toxaphene, Chrysene, Benzo(a)anthracene and Benzo(a)pyrene (collectively PAHs), Copper and Zinc

The following is a summary of the applicable TMDLs for the Long Beach Inner Harbor to this Facility.

3.4.1. Dominguez Channel and Greater Los Angeles and Long Beach Harbor Toxic Pollutants TMDL **(Harbor Toxics TMDL)**

Background. The Los Angeles 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 Harbor Waters* (Harbor Toxics TMDL). The Harbor Toxic TMDL was approved by

the State Water Board on February 7, 2012, the OAL on March 21, 2012, and the 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 (Basin Plan, Chapter 7, Section 7-40, p. 7-499).

b. Water column final concentration-based WLAs (µg/L) for copper, lead, zinc, 4,4'-DDT, and total PCBs ((Basin Plan, Chapter 7, Section 7-40, pp. 7-501 - 7-502).

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

a. Water Column WLAs. This Order also requires final WQBELs that are statistically-calculated based on saltwater column final concentration-based 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). The Los Angeles Water Board has determined that the WQBELs included this Order (i.e., copper, lead, zinc, 4,4'-DDT, and total PCBs) are consistent with, and constitute equivalency with, the Harbors Toxics TMDL's water WLAs and sediment-based allocations for minor permits and irregular discharges. The concentration of the pollutants in the effluent provides a measure of the pollutants discharged from the Facility to the Long Beach Inner Harbor.

b. Interim Sediment WLAs and Monitoring. This Order includes monitoring thresholds based on interim sediment concentration-based 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) [referred to in this Order as TMDL-based priority pollutants] and associated monitoring requirements for the effluent. Regardless of these monitoring thresholds, the Discharger shall ensure that effluent concentrations and mass discharges do not exceed levels that can be attained by performance of the Facility's treatment technologies existing at the time of permit issuance, reissuance, or modification. The TMDL's interim sediment allocations were developed to ensure that the beneficial uses of the Long Beach Inner Harbor are protected.

The water column CTR TMDL-based WLAs for copper, lead, zinc, 4,4'-DDT, and total PCBs are developed to ensure that the beneficial uses of the Long Beach Inner Harbor are preserved. However, no water column CTR TMDL-based WLAs are assigned for PAHs for the Greater Harbor Waters (includes Long Beach Inner Harbor). Therefore, performance goals are established for

the PAHs (benzo(a)pyrene, benzo(a)anthracene and chrysene) based on CTR human health criteria (see below for details).

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, PAHs (benzo(a)pyrene, benzo(a)anthracene and chrysene), DDT or total PCBs, then the Discharger has not demonstrated attainment with the 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) stipulated by the Harbor Toxics TMDL and implementation of the effluent sediment monitoring program is required for that priority pollutant. The effluent sediment monitoring shall begin during the next regular monitoring event following the effluent exceedances. An effluent sediment monitoring result at or below interim sediment allocations (monitoring thresholds) demonstrates attainment with the monitoring thresholds and additional effluent sediment monitoring is not required. An effluent sediment monitoring result that exceeds the interim sediment allocation requires additional effluent sediment monitoring during discharge, but not more frequently than once per year, until the three-year average concentration for the effluent sediment monitoring results is at or below the applicable interim sediment allocation.

During several bypass events TSS and CTR TMDL-based effluent limits were both exceeded. The effluent sediment monitoring program was implemented since 2016. The effluent sediment monitoring results shows exceedances for TSS, Copper, Zinc and Lead from 2016 to 2018, and for Zinc in 2019. In 2020/2021 semi-annual effluent monitoring took place. Initially sufficient effluent sediment mass was not available in 2020. In 2021 PAHs, PCBs and DDT effluent sediment monitoring results show attainment with sediment monitoring threshold levels.

a. Performance Goals for PAH Compounds Benzo(a)pyrene and Chrysene. CTR human health criteria are not promulgated for total PAHs. Therefore, performance goals are based on CTR human health criteria for the individual PAHs, benzo(a)pyrene (0.049 µg/L) and chrysene (0.049 µg/L). Benzo(a)pyrene and chrysene are selected because the State's 2010 303(d) List classifies the Los Angeles/Long Beach Inner Harbor as impaired for these PAH compounds. Performance goals are intended to ensure that effluent concentrations do not exceed levels currently achieved by the permitted facility. These performance goals are not enforceable effluent limitations. They act as triggers to determine when sediment monitoring of the effluent is required for these compounds.

b. 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 with the WLAs and load allocations is a maximum of 20 years after the TMDL effective date for a Discharger who justifies the need for the 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 Basin Plan Chapter 7, Section 7-40.

Since May 2, 2016, the Discharger has joined the Los Angeles Gateway Region Integrated Regional Water Management Joint Powers Authority (GWMA) in sharing costs in the Harbor Toxics TMDL Coordinated Compliance Monitoring and Reporting to address and monitor pollutants as specified in the Harbor Toxics TMDL. This satisfies the requirement in Order R4-2016-0121 for the Discharger to either develop a site-specific plan or to join a group in the Harbor Toxics TMDL monitoring. The GWMA's Coordinated Compliance Monitoring and Reporting Plan (CCMRP) outlines the monitoring activities being conducted by the cooperating parties for the Greater Harbor Waters. The sample collection methods prescribed within the CCMRP are consistent with the California State Surface Water Ambient Monitoring Program (SWAMP). Compliance monitoring and reporting activities are being conducted in accordance with the Programmatic Quality Assurance Project Plan (PQAPP).

GWMA has timely delivered Annual Reports for Greater Los Angeles and Long Beach Harbor Waters under the Harbor Toxics TMDL Coordinated Compliance Monitoring and Reporting. According to the annual reports water quality continue to meet water quality objectives for beneficial use. Monitoring remains required to verify that the water quality levels continue to meet those objectives. The Discharger is encouraged to continue formal participation in GWMA's Harbor Toxics TMDL Coordinated Compliance Monitoring and Reporting.

3.5. **Other Plans, Polices and Regulations**

3.5.1 **Climate Change Adaptation and Mitigation.** On March 7, 2017, the State Water Board adopted a resolution in recognition of the challenges posed by climate change that requires a proactive approach to climate change in all State Water Board actions, including drinking water regulation, water quality protection, and financial assistance (Resolution No. 2017-0012). The resolution lays the foundation for a response to climate change that is integrated into all State Water Board actions, by giving direction to the State Water Board divisions and encouraging coordination with the Los Angeles Water Boards. On May 10, 2018, the Los Angeles Water Board also adopted "A Resolution to Prioritize Actions to Adapt to and Mitigate the Impacts of Climate Change on the Los Angeles Region's Water Resources and Associated Beneficial Uses" (Resolution No. R18-004). The resolution summarizes the steps taken so far to address the impacts of climate change within the Los Angeles Water Board's programs and lists a series of steps to move forward. These include the identification of potential regulatory adaptation and mitigation measures that could be implemented on a short-term and long-term basis by each of the Los Angeles

Water Board's programs to take into account, and assist in mitigating where possible, the effects of climate change on water resources and associated beneficial uses. This Order contains provisions to require planning and actions to address climate change impacts in accordance with both the State and Los Angeles Water Boards' resolutions.

The Permittee shall develop a Climate Change Effects Vulnerability Assessment and Management Plan (Climate Change Plan) and submit the Climate Change Plan to the Los Angeles Water Board for the Executive Officer's approval with the permit application. The Climate Change Plan shall include an assessment of short and long term vulnerabilities of the facility and operations as well as plans to address vulnerabilities of collection systems, facilities, treatment systems, and outfalls for predicted impacts in order to ensure that facility operations are not disrupted, compliance with permit conditions is achieved, and receiving waters are not adversely impacted by discharges. Control measures shall include, but are not limited to, emergency procedures, contingency plans, alarm/notification systems, training, backup power and equipment, and the need for planned mitigations to ameliorate climate-induced impacts including, but not limited to, changing influent and receiving water quality and conditions, as well as the impact of rising sea level (where applicable), wildfires, storm surges and back-to-back severe storms that are expected to become more frequent.

3.5.2 **Advancing Racial Equity**. In accordance with the Water Boards' efforts to advance racial equity, the Order requires all Permittees to meet water quality standards to protect public health and the environment, thereby benefitting all persons and communities within the Region. The Los Angeles Water Board is committed to developing and implementing policies and programs to advance racial equity and environmental justice so that race can no longer be used to predict life outcomes, and outcomes for all groups are improved.

4. 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 CFR section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR 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.

Discharges from the Facility is comprised of low volume wastewater, groundwater seepage and stormwater. The list of pollutants of concern for the discharges covered under this Order were identified based on effluent monitoring data, constituents regulated in the previous Order No. R4-2016-0121. Pollutants commonly associated with stormwater discharges include pH, BOD, oil and grease, TSS, settleable solids, turbidity, temperature and metals. Pollutants of concern were also identified based on the Facility's past monitoring history at Discharge Point 001, impairments of the receiving water as identified

by the State's 2014-2016 303(d) list, and waste load allocations as established in applicable TMDLs for the receiving water.

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

4.1. **Discharge Prohibitions**

Discharge Prohibitions in this Order are based on the federal CWA, the CFR, the Basin Plan, the Water Code, State Water Board's plans and policies, U.S. EPA guidance and regulations, and the previous permit provisions. This Order includes a prohibition for trash in order to implement the statewide Trash Provisions. The discharge prohibitions included in this Order are consistent with the requirements set for other dischargers regulated by NPDES permits within the Long Beach Inner Harbor.

4.2. **Technology-Based Effluent Limitations (TBELs)**

4.2.1. **Scope and Authority**

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 CFR 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 CFR 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 ELGs representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR 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 Los Angeles Water Board must consider specific factors outlined in 40 CFR section 125.3.

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

This Order includes technology-based effluent limitations based on BPJ in accordance with 40 C.F.R. section 125.3. Since discharges of once-through cooling water were terminated in October 2007, discharges from the Facility consist of groundwater from dewatering systems, stormwater and intermittent low volume wastewater. Currently, no ELGs exist for this type of facility. As such, BPJ is used to develop technology-based limitations for the control of some pollutants. Specifically, we validated prior analyses underlying the previous order's TBELs by reviewing permits and/or ELGs for power generating facilities and tank farms. Based upon existing effluent data, we determined that relevant constituents of concern are total suspended solids (TSS), 5-day biochemical oxygen demand (BOD_5), oil and grease, turbidity, and settleable solids. Conversely, based upon the effluent data for the past permit term, other constituents of concern at similar facilities are not appropriately identified as constituents of concern at this Facility, including TPH. Effluent limitations for TSS, BOD_5, oil and grease, turbidity, and settleable solids have been prescribed accordingly. In setting these limitations, the Los Angeles Water Board considered the factors listed in 40 C.F.R. section 125.3(d).

The effluent limitations in Table F-5 are consistent with technology-based effluent limitations (TBELs) included in the previous Order and other orders within the State for similar types of discharges.

Table F-5. Summary of Technology-based Effluent Limitations

Parameter	Units	Average Monthly	Maximum Daily	Notes
BOD_5 @ 20 °C	mg/L	20	30	a
BOD_5 @ 20 °C	lbs/day	720	1,100	a & b
Oil and Grease	mg/L	10	15	a
Oil and Grease	lbs/day	360	540	a & b
Total Suspended Solids (TSS)	mg/L	50	75	a
TSS	lbs/day	1,800	2,700	a & b
Settleable Solids	mL/L	0.1	0.3	a
Turbidity	NTU	50	75	a

Notes for Table F-5

a. TBEL for this parameter is included in this Order pursuant to BPT requirements 40 CFR section 125.3(d)(1); 40 CFR section 125.3(c)(2)).

b. The mass-based effluent limitations are based on the permitted flow rate of 4.3 MGD applicable at Discharge Point 001 and are calculated as follows:

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

End of Notes for Table F-5

Biochemical Oxygen Demand. The 5-day BOD test indirectly measures the amount of readily degradable organic material in water by measuring the residual dissolved oxygen after a period of incubation (usually 5 days at 20° C). This Order addresses BOD through technology-based effluent limitations.

4.3. Water Quality-Based Effluent Limitations (WQBELs)

4.3.1. Scope and Authority

CWA Section 301(b) and 40 CFR 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.

40 CFR Section 122.44(d)(1)(i) 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). WQBELs must also be consistent with the assumptions and requirements of TMDL Waste Load Allocations (WLAs).

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. Hence, for this Order, the Regional Water Board has used the SIP methodology to evaluate reasonable potential for discharges through Discharge Point 001.

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

The Los Angeles Water Board adopted a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to the Long Beach Inner Harbor are summarized in section 3.3.1 of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving water as described below:

a. pH. Order R4-2016-0121 contained instantaneous maximum and minimum effluent limitations for pH based on the Basin Plan objectives (6.5 – 8.5). These effluent limitations have been carried over from the previous Order.

b. Bacteria. This Order contains receiving water limitations for Enterococci and total coliform bacteria in order to protect potential contact water recreation (REC-1) and shellfish harvesting (SHELL) beneficial uses of the receiving water.

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

d. Total Chlorine Residual. Disinfection of wastewaters with chlorine produces chlorine residual. Chlorine and its reaction products are toxic to aquatic life. The limit for residual chlorine is based on the Basin Plan (page 3-9) narrative. *"Chlorine residual shall not be present in surface water discharges at*

concentrations that exceed 0.1 mg/L and shall not persist in receiving waters at any concentration that causes impairment of beneficial uses." This Order establishes chlorine residual effluent limitations based on the Basin Plan objective.

e. 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%. No WQBELs is prescribed for turbidity in this Order; instead, this Order applies the water quality objective for turbidity as a receiving water limitation, in addition to the technology-based effluent limitation. The limitations included in this Order for turbidity is protective of the Basin Plan objectives for turbidity.

f. Oil and Grease. This Order addresses oil and grease through receiving water limitations.

g. Temperature. As discussed above in section 3.3.2, the Basin Plan states that temperature objectives for enclosed bays and estuaries are specified in the Thermal Plan. Specifications of the Thermal Plan are also described above. This Order establishes the effluent limitation of 86°F, consistent with the Thermal Plan requirements.

h. Solid, Suspended or Settleable Materials. The Basin Plan requires that, "Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses." This Facility's industrial category (40 CFR 423) sets an effluent limitation for TSS of 100 mg/l. The 75 mg/l effluent limitation for TSS in this Order is more stringent and has been carried over from the previous permit to avoid backsliding. The Discharger has been able to meet this limitation. This limitation is expected to be protective of receiving water quality, consistent with what is typically established for similar discharges in the Los Angeles Region.

i. TCDD Equivalents. The CTR establishes a numeric water quality objective for 2,3,7,8-tetrachlorinated dibenzo-p-dioxin (2,3,7,8-TCDD) of 1.4×10^{-8} μg/L for the protection of human health, when aquatic organisms are consumed. When CTR was promulgated, U.S. EPA stated its support of the regulation of other dioxin and dioxin-like compounds through the use of toxicity equivalencies (TEQs) in NPDES permits. For California waters, U.S. EPA stated specifically, "if the discharge of dioxin or dioxin-like compounds has reasonable potential to cause or contribute to a violation of a narrative criterion, numeric water quality-based effluent limitations for dioxin or dioxin-like compounds should be included in NPDES permits and should be expressed using a TEQ scheme" [65 Fed. Reg. 31682, 31695 (2000)]. This procedure, developed by the World Health Organization (WHO) in 1988, uses a set of toxicity equivalency factors (TEFs) to convert the concentration of any congener of dioxin or furan into an equivalent concentration of 2,3,7,8-TCDD.

When the CTR was promulgated, U.S. EPA also stated that the Agency will continue to assess the risks posed by dioxin to public health. To determine if the discharge of dioxin or dioxin-like compounds from the Facility has

reasonable potential to cause or contribute to a violation of the Basin Plan's narrative water quality objective regarding bioaccumulation, Los Angeles Water Board staff has therefore used TEFs to express the measured concentrations of 16 dioxin congeners in effluent and background samples as 2,3,7,8-TCDD. These "equivalent" concentrations are then compared to the numeric criterion, established by the CTR for 2,3,7,8-TCDD of 1.4×10^{-8} μg/L.

j. Ammonia. The discharge was evaluated for reasonable potential to exceed the Basin Plan objective for ammonia as specified in Los Angeles Water Board Resolution No. 2004-022. The toxicity of ammonia to aquatic organisms increases with increasing pH and temperature. In turn, objectives calculated from higher pH and temperature values results in lower (more stringent) objectives. The one-hour ammonia objective was converted to total ammonia using the 90th percentile pH and temperature monitoring results obtained from receiving water Monitoring Location RSW-001. The 4-day average ammonia objective was converted to total ammonia using 50th percentile pH and temperature receiving water data. Since the maximum effluent concentration of ammonia in sampling events were above the calculated objectives, this Order establishes ammonia effluent limitations at Discharge Point 001. In addition, this Order requires the Discharger to conduct ammonia, pH, temperature and salinity monitoring in the receiving water in order to provide data necessary to calculate ammonia objectives and conduct future RPAs.

Translation of un-ionized ammonia (NH_3) water quality objectives to total ammonia water quality objectives:

Total un-ionized ammonia (NH_3) water quality objectives of 0.035 mg/L for the 4-day average and 0.233 mg/L for the 1-hour average are to be translated to total ammonia ($NH_4^+ + NH_3$) utilizing the implementation procedure contained in Resolution No. 2004-022 which revised the saltwater ammonia water quality objectives in the 1994 Basin Plan. The equation for the translation is as follows:

$$[NH_4^+] + [NH_3] = [NH_3] + [NH_3]*10^{(pK_a^s + 0.0324(298 - T) + 0.0415 P/T - pH)}$$

Where: P = 1 atm
T = temperature (°K)
$pK_a^s = 0.116 * i + 9.425$, the stoichiometric acid hydrolysis constant of ammonium ions in saltwater based on i
$i = 19.9273 S (1000 – 1.005109 S)-1$, the molal ionic strength of saltwater based on S
S = salinity

In order to calculate total ammonia objectives, receiving water pH, temperature, and salinity data are required. Monitoring data (pH, temperature and salinity) of the receiving water from May 1 2016 to December 31 2021 were used in the calculation. The calculated total ammonia water quality objectives are as follows:

One-hour average total ammonia objective: 5.344 mg NH_3/L
based on: 90 percentile pH (8.14),

90 percentile temperature (19.76 ºC) and
10 percentile salinity (29.80 ppt)

4-day average total ammonia objective: 1.393 mg NH_3/L
based on: 50 percentile pH (7.98),
50 percentile temperature (17.22 ºC) and
50 percentile salinity (32.00 ppt)

The reasonable potential analysis for ammonia was conducted based on these two total ammonia objectives.

Although the calculated final AMEL for Ammonia is 0.920 and MDEL is 1.937, the final AMEL and MDEL for Ammonia is carried over from the existing permit to avoid backsliding.

a. **Harbor Toxics TMDL Receiving (salt) Water Column Concentration-Based Waste Load Allocation**

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 Harbor Waters* (Harbor Toxics TMDL). The Harbor Toxics TMDL assigned concentration-based waste load allocations (WLAs) to any 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-7 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. This permit implements the applicable WLAs as required in the TMDL. The WLAs are converted into effluent limitations by applying the CTR-SIP procedures.

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

Constituents	Units	WLA	Notes
Copper, TR	µg/L	3.73	a
Lead, TR	µg/L	8.52	a
Zinc, TR	µg/L	85.6	a
4,4'-DDT	µg/L	0.00059	b
Total PCBs	µg/L	0.00017	b
Total PAHs	µg/L	--	c

Notes for Table F-6

a. WLAs for metals are converted from saltwater dissolved CTR criteria using CTR saltwater default translators.
b. WLAs for total PCBs and 4,4-DDT are human health criteria for consumption of organisms only.
c. CTR human health criteria were not established for total PAHs. Therefore, the CTR criterion for individual PAHs of 0.049 µg/L is applied to benzo(a)anthracene, benzo(a)pyrene, and chrysene. Benzo(a)pyrene and chrysene are selected because the State's 2010 303(d) List classifies the Los Angeles/Long Beach Inner Harbor as impaired for these PAH compounds.

End of Notes for Table F-6

4.3.3. CTR and SIP

The CTR and the SIP specify numeric objectives for toxic substances and the procedures whereby these objectives are to be implemented. The procedures include those used to conduct reasonable potential analysis (RPA) to determine the need for effluent limitations for priority pollutants. The Technical Support Document (TSD) also specifies procedures to conduct reasonable potential analyses for nonpriority pollutants.

4.3.4. Determining the Need for WQBELs

a. Reasonable Potential Analysis Methodology

In accordance with section 1.3 of the SIP, the Los Angeles 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. If there is an applicable TMDL-based WLA, then WQBELs are developed using the WLA pursuant to 40 CFR section 122.44(d)(1)(vii)(B). Otherwise, the Los Angeles Water Board analyzes effluent and receiving water data and identifies the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent. To determine reasonable potential, the MEC and the B are then compared with the applicable water quality criteria and objectives (C) contained in the CTR, NTR, and/or the Basin Plan. For all pollutants that have a reasonable potential to cause or contribute to an excursion above a state water quality standard in the receiving water, 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 an RPA:

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

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

Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, or other applicable factors indicate 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 Los Angeles Water Board to conduct the RPA. Upon review of the data, and if the Los Angeles Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

The Los Angeles 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 Los Angeles 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 an additional reasonable potential analysis at the permitting stage for effluent limitations consistent with the assumption and requirements of a TMDL WLA. Similarly, the SIP at Section 1.3 recognizes that reasonable potential analysis is not necessary at the permitting stage if a TMDL has been developed.

b. Reasonable Potential Analysis Results for Priority Pollutants

The RPA was performed using effluent and receiving data collected by the Discharger at Monitoring Location EFF-001 during the effective term of Order R4-2016-0121 (from 2016 through 2021). Based on the RPA, pollutants that demonstrate reasonable potential are copper, lead, mercury, nickel, zinc, cyanide and alpha-endosulfan.

The RPA was conducted using effluent and receiving water monitoring data collected by the Discharger from May 2016 to December 2021. Refer to Attachments H and I for a summary of the RPA and associated effluent limitation calculations. Table F-7 summarizes the results of the RPA.

The reasonable potential analysis for ammonia was performed based on water quality objectives applicable to the receiving water contained in the Basin Plan. Consistent with procedures contained in the Basin Plan, the water quality objectives for ammonia were converted to total ammonia concentrations (i.e., ammonia plus ammonium concentrations) utilizing receiving water pH, temperature, and salinity data (see translation calculations in the last section). Total ammonia shows Tier 1 reasonable potential because the MEC was greater than C. Therefore, this Order establishes effluent limitations for total ammonia. The table below summarizes results from the RPA. Only pollutants that were detected in the effluent are included in the table.

Table F-7. Summary of Reasonable Potential Analysis

CTR No.	Constituent	Applicable Water Quality Criteria (C) (µg/L)	Maximum Effluent Concentration (MEC) (µg/L)	Maximum Detected Receiving Water Concentration (B) (µg/L)	RPA Result – Need Limitation?	Reason
--	Ammonia Nitrogen, Total (as N)	1,230	2,800	3,600	Yes	MEC≥C
6	Copper	3.73	104	1.47	Yes	MEC≥C, TMDL
7	Lead	8.52	22.8	0.98	Yes	MEC≥C, TMDL
8	Mercury	0.004	0.209	0.0453	Yes	MEC≥C
9	Nickel	8.65	282	0.4	Yes	MEC≥C
13	Zinc	85.6	307	16.7	Yes	MEC≥C, TMDL
14	Cyanide	1.00	6.3	0.69	Yes	MEC≥C
--	TCDD-Equivalents	$1.4x10^{-8}$	$1.05x10^{-5}$	$2.09x10^{-7}$	Yes	MEC≥C
60	Benzo(a)Anthracene	0.049	<0.046	<0.047	Yes	TMDL
61	Benzo(a)Pyrene	0.049	<0.048	<0.049	Yes	TMDL
73	Chrysene	0.049	<0.049	<0.049	Yes	TMDL
108	4,4'-DDT	0.00059	<0.0016	<0.0016	Yes	TMDL
112	Alpha-Endosulfan	0.009	0.012	0.0007	Yes	MEC≥C
119-125	PCBs	0.00017	<0.039	0.017	Yes	MEC≥C, TMDL

4.3.5. **WQBEL Calculations**

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

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

ii. Use of a steady-state model to derive 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 Los Angeles Water Board.

b. The Harbor Toxics TMDL establishes WLAs for copper, lead, zinc, 4,4'-DDT, and PCBs; WQBELs for these constituents are calculated following the procedures in section 1.4 of the SIP.

a. No dilution credit is being allowed in this order.

The process for developing these limits is in accordance with section 1.4 of the SIP. Two sets of Average Monthly Effluent Limitation (AMEL) and Maximum Daily Effluent Limitation (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.

The Harbor Toxics TMDL establishes WLAs for copper, lead, zinc, 4,4'-DDT, and PCBs; WQBELs for these are calculated following the procedures in section 1.4 of the SIP.

For this Order WQBELs are also required for mercury, nickel and cyanide based on reasonable potential.

Calculation of aquatic life AMEL and MDEL

Sample calculation for total recoverable for nickel

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. For discharges from the Facility, criteria for saltwater are independent of hardness and pH.

D = The dilution credit, and

B = The ambient background concentration

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

$ECA = C$

For nickel the applicable ECAs are:

$ECA_{acute} = 74.75$ µg/L

$ECA_{chronic} = 8.65$ 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 are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

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

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. For arsenic there are ten samples and the CV is calculated as follows:

CV = Standard Deviation / Average = 32.7 / 5.06 = 6.7

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

Number of Samples	CV	ECA Multiplier$_{acute}$	ECA Multiplier$_{chronic}$
10	6.7	0.072	0.088

$LTA_{acute} = 74.75\ \mu g/L \times 0.072 = 5.35\ \mu g/L$

$LTA_{chronic} = 8.65\ \mu g/L \times 0.088 = 0.76\ \mu g/L$

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

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

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

$LTA_{nickel} = LTA_{chronic} = 0.76\ \mu g/L$

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

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

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

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

Number of Samples per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$
4	6.7	13.97	3.86

AMEL = 0.76 µg/L x 3.86 = 2.9 µg/L

MDEL = 0.76 µg/L x 13.87 = 10.6 µg/L

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

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

For nickel:

$AMEL_{human\ health}$ = 4,600 µg/L

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of $Multipler_{MDEL}$ 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 ($Multiplier_{MDEL}$/ $Multiplier_{AMEL}$)

$MDEL_{human\ health}$ = 4,600 x 3.60 = 16,549

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health as the WQBEL for the Order. For nickel the AMEL and MDEL for aquatic life apply:

AMEL = 0.76 µg/L x 3.86 = 2.9 µg/L

MDEL = 0.76 µg/L x 13.87 = 10.6 µg/L

Sample calculation for total recoverable for copper

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 ≤ B,

Where C = The priority pollutant criterion/objective, adjusted if necessary, for hardness, pH and translators. For discharges from the Facility, criteria for saltwater are independent of hardness and pH.

D = The dilution credit, and

B = The ambient background concentration

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

ECA = C

For copper the applicable ECAs are:

ECA_{acute} = n/a

$ECA_{chronic}$ = 3.73 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 are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

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

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. For arsenic there are ten samples and the CV is calculated as follows:

CV = Standard Deviation / Average = 13.22 / 3.72 = 3.7

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

Number of Samples	CV	ECA Multiplier$_{acute}$	ECA Multiplier$_{chronic}$
10	3.6	0.085	0.124

LTA_{acute} = n/a

$LTA_{chronic}$ = 3.73 µg/L x 0.124 = 0.46 µg/L

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

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

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

$LTA_{copper} = LTA_{chronic}$ = 0.46 µg/L

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

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

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

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

Number of Samples per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$
4	3.7	11.80	3.53

AMEL = 0.46 µg/L x 3.53 = 1.63 µg/L

MDEL = 0.46 µg/L x 11.80 = 5.45 µg/L

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

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

For total recoverable copper, only the aquatic life (TMDL-based) effluent limitations are applicable.

$AMEL_{human\ health} = ECA_{human\ health}$ = Not Available

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

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

For total recoverable copper $MDEL_{human\ health}$ is not applicable.

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

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

Final WQBELs for Copper:

AMEL = 0.46 µg/L x 3.53 = 1.63 µg/L

MDEL = 0.46 µg/L x 11.80 = 5.45 µg/L

c. Mass-based limits. 40 CFR section 122.45(f)(1) requires that, except under certain conditions, or for certain pollutants, all permit limits, standards, or prohibitions be expressed in terms of mass units. 40 CFR section 122.45(f)(2) allows the permit writer, at his/her discretion, to express limits in additional units

(e.g., concentration units). The regulations mandate that, where limits are expressed in more than one unit, the permittee must comply with both. Generally, mass-based limits ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limits. Concentration-based effluent limits, on the other hand, discourage the reduction in treatment efficiency during low-flow periods and require proper operation of the treatment units at all times. In the absence of concentration-based effluent limits, a permittee would be able to increase its effluent concentration (i.e., reduce its level of treatment) during low-flow periods and still meet its mass-based limits. To account for this, this Order includes mass and concentration limits for some constituents.

4.3.5. **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 toxics amounts" objective, 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 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 includes 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 in aquatic organisms. Detrimental responses include, but are 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 June 2010, U.S. EPA published a guidance document titled *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010), in which they recommend the following: "Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program." The TST approach is another statistical option for analyzing valid WET test data. Use of the TST approach does not result in any changes to EPA's WET test methods. Section 9.4.1.2 of U.S. EPA's *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/0136,1995), recognizes that, "the statistical methods recommended in this manual are not the only possible methods of statistical analysis." The TST approach can be applied to acute (survival) and chronic (sublethal) endpoints and is appropriate to use for both freshwater and marine EPA WET test methods.

The TST's null hypothesis for chronic toxicity is:

H_o: Mean response (IWC in % effluent) ≤ 0.75 mean response (Control).

Results obtained from the chronic toxicity test are analyzed using the TST approach and an acceptable level of chronic toxicity is demonstrated by rejecting the null hypothesis and reporting “Pass” or “P”.

The chronic toxicity IWCs for Discharge Points 001 are 100/(0+1) = 100 percent effluent.

The 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 ≥0.50. The median monthly effluent limitation (MMEL) for chronic toxicity is exceeded and a violation will be flagged when the median of up to three independent chronic toxicity tests, conducted within the same calendar month and analyzed using the TST approach, results in “Fail”. The MMEL for chronic toxicity shall only apply when there is a discharge more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in “Fail”.

4.4. **Final Effluent Limitation Considerations**

4.4.1. **Anti-Backsliding Requirements**

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR 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. All effluent limitations, including TMDL WLA-based effluent limits, for Discharge Point 001 in this Order are at least as stringent as the effluent limitations in Order R4-2016-0121.

4.4.2. **Antidegradation Policies**

40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. On October 28, 1968, the State Water Board established California’s antidegradation policy when it adopted Resolution Number 68-16, Statement of Policy with Respect to Maintaining the Quality of the Waters of the State. Resolution Number 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The State Water Board has, in State Water Board Order Number 86-17 and an October 7, 1987 guidance memorandum, interpreted Resolution Number 68-16 to be fully consistent with the federal antidegradation policy contained in 40 CFR section 131.12. Similarly, CWA section 303(d)(4)(B) and 40 CFR section 131.12 require that all permitting actions be consistent with the federal antidegradation policy. Together, the state and federal antidegradation policies are designed to ensure that a water body will not be degraded resulting from the permitted discharge. The Los Angeles Water Board’s Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The renewal of this NPDES permit is consistent with the anti-degradation policy because it is not expected to allow degradation of receiving water quality. No reduction in the existing level of wastewater treatment is anticipated. In addition, the renewal of the NPDES

permit will not lower the surface water quality because the conditions in this Order are at least as stringent as the previous permit. Effluent and receiving water monitoring for these pollutants continue to be required under this Order to ensure effluent and receiving water concentrations do not exceed the objectives. In addition, this Order includes a reopener provision that permits the Los Angeles Water Board to reopen the permit if the effluent exhibits reasonable potential to exceed the objectives during the permit cycle. The Los Angeles Water Board may modify the terms of this Order to prevent degradation of high-quality waters based on any change in the concentration of these constituents in the effluent or receiving water that indicates that a degradation of receiving water quality may occur. The treatment required by this Order is the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the State will be maintained.

4.4.3. **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, and TSS at Discharge Point 001. Restrictions on these parameters are discussed in section 4.2.2 of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Water quality-based effluent limitation 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 CFR 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. Most 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 CFR section 131.21(c)(1). The remaining water quality objectives and beneficial uses implemented by this Order were approved by U.S. EPA and are applicable water quality standards pursuant to section 131.21(c)(2). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Table F-8. Summary of Effluent Limitations at Discharge Point 001

Parameter	Units	Average Monthly	Maximum Daily	Performance Goals	Basis	Notes
BOD_5 @ 20 °C	mg/L	20	30	--	E	
BOD_5 @ 20 °C	lbs/day	710	1,100	--	E	a
Oil and Grease	mg/L	10	15	--	E	
Oil and Grease	lbs/day	360	540	--	E	a
pH	pH units	--	Min. 6.5 Max. 8.5	--	E, BP	b
TSS	mg/L	50	75	--	E, BPJ	
TSS	lbs/day	1,800	2,700	--	E, BPJ	a
Settleable Solids	mL/L	0.1	0.3	--	E	
Turbidity	NTU	50	75	--	E	
Temperature	°F	--	86	--	E, TP	c
Ammonia, Total (as N)	mg/L	0.73	1.8	--	E, BP	
Ammonia, Total (as N)	lbs/day	26	65	--	E, BP	
Total Residual Chlorine	mg/L	--	0.1	--	E, BP	d
Chronic Toxicity	Pass or Fail, % Effect	Pass	Pass or % Effect <50	--	E, BP	e
Copper, TR	µg/L	1.6	5.5	--	E,TMDL, SIP	f
Copper, TR	lbs/day	0.057	0.20	--	E,TMDL, SIP	a & f
Lead, TR	µg/L	4.2	13.6	--	E,TMDL, SIP	f
Lead, TR	lbs/day	0.15	0.49	--	E,TMDL, SIP	a & f
Mercury, TR	µg/L	0.004	0.004	--	E, CTR, SIP	g
Mercury TR	lbs/day	0.00014	0.00014	--	E, CTR, SIP	a & g
Nickel, TR	µg/L	2.9	10.7	--	CTR, SIP	g
Nickel, TR	lbs/day	0.10	0.38	--	CTR, SIP	a & g
Zinc, TR	µg/L	42	136	--	E,TMDL, SIP	f

Zinc, TR	lbs/day	1.5	4.9	--	E,TMDL, SIP	a & f
Cyanide	µg/L	0.5	1.0	--	CTR, SIP	g
Cyanide	lbs/day	0.018	0.036	--	CTR, SIP	a & g
TCDD-Equivalents	µg/L	1.4×10^{-8}	2.8×10^{-8}	--	E, CTR, SIP	g & h
TCDD-Equivalents	lbs/day	5.0×10^{-10}	1.0×10^{-9}	--	E, CTR, SIP	a, g &h
4,4'-DDT	µg/L	0.00059	0.0012	--	E,TMDL, SIP	f & i
4,4'-DDT	lbs/day	2.1×10^{-5}	4.3×10^{-5}	--	E,TMDL, SIP	a, f &i
Alpha-Endosulfan	µg/L	0.007	0.014	--	CTR, SIP	g
Alpha-Endosulfan	lbs/day	0.00025	0.0005	--	CTR, SIP	a & g
PCBs	µg/L	0.00017	0.00034	--	E,TMDL, SIP	f, i & j
PCBs	lbs/day	6.1×10^{-6}	1.2×10^{-5}	--	E,TMDL, SIP	a, f, i & j
Benzo(a) Pyrene	µg/L	--	--	0.049	E,TMDL, SIP	h, i, k & l
Benzo(a)Anthracene	µg/L	--	--	0.049	TMDL, SIP	h, i, k & l
Chrysene	µg/L	--	--	0.049	E,TMDL, SIP	h, i, k & l

Footnotes for Table 8

a. The mass-based effluent limitations are based on the permitted flow rate of 4.3 MGD applicable at Discharge Point 001 and are calculated as follows:
   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day
b. The effluent limitations for pH are 6.5 as an instantaneous minimum and 8.5 as an instantaneous maximum.
c. The effluent limitation for Temperature is 86 °F as an instantaneous maximum.
d. The effluent limitation for Total Residual Chlorine is 0.1 mg/l as an instantaneous maximum.
e. The average monthly is a Median Monthly Effluent Limitation (MMEL), and the MMEL shall be reported as "Pass" or "Fail." The Maximum Daily Effluent Limitation (MDEL) shall be reported as "Pass" or "Fail" and "% Effect." During a calendar month, up to three independent toxicity tests are required for routine monitoring when one toxicity test results in "Fail".
f. 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 PCB's, benzo(a)pyrene, benzo(a)anthracene, or chrysene, implementation of the effluent sediment monitoring program is required for that priority pollutant. The effluent sediment monitoring shall begin during the next regular monitoring event following the effluent exceedance. An effluent sediment monitoring result at or below the interim event following the effluent exceedance. An effluent sediment monitoring result at or below the interim sediment allocations (Monitoring Thresholds) in Table 5 of this Order, demonstrates attainment with the applicable sediment allocation and additional sediment monitoring of the effluent is not required. An effluent sediment monitoring result that exceeds the interim sediment allocation requires additional sediment monitoring of the effluent during discharge but not more frequently than once per year until the three-year average concentration for sediment monitoring results is at or below the interim sediment allocation.

g. The effluent limitation is based on CTR saltwater criteria and calculated using CTR-SIP procedures.

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

i. Dioxin-TEQ (TCDD)Equivalents) = $\sum(C_x \times TEF_x)$

Where,

ii. C_X = concentration of dioxin or furan congener x

iii. TEF_X = TEF for congener x

Toxicity Equivalency Factors for 2,3,7,8-TCDD Equivalents

Congeners	Toxicity Equivalency Factors
2,3,7,8 - tetra CDD	1.0
1,2,3,7,8 - penta CDD	1.0
1,2,3,4,7,8 - hexa CDD	0.1
1,2,3,6,7,8 - hexa CDD	0.1
1,2,3,7,8,9 - hexa CDD	0.1
1,2,3,4,6,7,8 - hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8 - tetra CDF	0.1
1,2,3,7,8 - penta CDF	0.05
2,3,4,7,8 - penta CDF	0.5
1,2,3,4,7,8 - hexa CDF	0.1
1,2,3,6,7,8 - hexa CDF	0.1
1,2,3,7,8,9 - hexa CDF	0.1
2,3,4,6,7,8 - hexa CDF	0.1
1,2,3,4,6,7,8 - hepta CDFs	0.01
1,2,3,4,7,8,9 - hepta CDFs	0.01

Octa CDF	0.0001

i Samples analyzed must be unfiltered samples.

j. 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.

k. Performance Goals are intended to ensure that effluent concentrations and mass discharges do not exceed levels currently achieved by the permitted facility that are protective of water quality. These performance goals are not considered as limitations or standards for the regulation of the facility. They act as triggers to determine when effluent sediment monitoring is required for this category of pollutants.

l. CTR human health criteria were not established for total PAHs. Therefore, the performance goals are based on the CTR human health criteria for the individual PAHs; benzo(a)pyrene, benzo(a)anthracene, and chrysene. The benzo(a)pyrene and chrysene were selected because the State's 2010 303(d) List classifies the Los Angeles/Long Beach Inner Harbor as impaired for these PAH compounds. Benzo(a)anthracene was selected because it is included as an organic marine sediment target and as a receiving salt water column concentration-based waste load allocation (WLA) as an individual PAH as part of total PAH in the TMDL for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters.

End of Footnotes for Table F-8

4.5. Interim Effluent Limitations – Not Applicable

4.6. Land Discharge Specifications – Not Applicable

4.7. Recycling Specifications – Not Applicable

5. RATIONALE FOR RECEIVING WATER LIMITATIONS

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

5.1. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. These water quality objectives include the requirement to maintain high-quality waters pursuant to federal regulations (40 CFR section 131.12) and State Water Board Resolution Number 68-16. Numeric and narrative water quality objectives applicable to surface waters within the Los Angeles Region, including Long Beach Inner Harbor are also included in the Thermal Plan and Enclosed Bays and Estuaries Plan, Sediment Quality, Trash Control and Mercury Provisions. Receiving water limitations in this Order are included to ensure protection of beneficial uses of the receiving water.

5.2. **Groundwater – Not Applicable**

6. RATIONALE FOR PROVISIONS

6.1. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 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 CFR 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 CFR allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR 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).

6.2. Special Provisions

6.2.1. Reopener Provisions

These provisions are based on 40 CFR part 123. The Los Angeles 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 Los Angeles Water Board, including revisions to the Basin Plan or revisions to the Harbor Toxics TMDL, or submittal of a request for modification by the Discharger.

6.2.2. Special Studies and Additional Monitoring Requirements

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

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 d 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 Greater Los Angeles and Long Beach Harbor Waters**. The Harbor Toxics TMDL requires the responsible parties identified in the Los Angeles River Metals TMDL to conduct water and sediment monitoring above the Los Angeles River Estuary to determine the river's contribution to the impairments in the Greater Harbor waters. The Discharger is identified as a responsible party in the Los Angeles River Metals TMDL; therefore, the Discharger is required to comply with the terms of the TMDL. As specified in section 6.3.2.2. of this Order, the Discharger shall join a group already formed or develop a site-specific monitoring plan. That section also includes the requirements for the monitoring plan.

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

a. Stormwater Pollution Prevention Plan (SWPPP). The prior permit required the Discharger to develop and implement a SWPPP. This Order requires the Discharger to update the SWPPP with an evaluation of the avoidability and feasible alternatives to bypass events, and continue to implement a SWPPP approved by the Executive Officer of the Los Angeles Water Board. The SWPPP shall outline site-specific management processes for minimizing stormwater runoff contamination and for preventing contaminated stormwater runoff from being discharged directly into the Long Beach Inner Harbor. At a minimum, the management practices shall ensure that raw materials and chemicals do not come into contact with stormwater. SWPPP requirements are included as Attachment G, based on 40 CFR section 122.44(k).

b. **Best Management Practices Plan (BMPP).** Order No. R4-2016-0121 required the Discharger to develop and implement BMPs in order to reduce the number 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 BMPP shall incorporate the 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.

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 number of pollutants discharged in case of a spill. The SCP shall be site specific and shall cover the areas of the Facility.

6.2.4. **Construction, Operation, and Maintenance Specifications:** This provision is based on the requirements of 40 C.F.R. section 122.41(e).

6.2.5. **Climate Change Effects Vulnerability Assessment and Mitigation Plan** The Permittee is required to address potential climate change impacts through the development and implementation of a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan), which is due 12 months after the effective date of this Order. This requirement is based on the need to adapt to and mitigate the effects of climate change on permitted facilities as described in State Water Board's Resolution No. 2017-0012 and the Regional Los Angeles Water Board's Resolution No. R18-004.

6.2.6. **Special Provisions for Publicly-Owned Treatment Works (POTWs) – Not Applicable**

6.2.7. **Other Special Provisions – Not Applicable**

6.2.8. **Compliance Schedules – Not Applicable**

7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 CFR sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code section 13383 also authorize the Los Angeles Water Board to establish monitoring, 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.

7.1. Influent Monitoring – Not Applicable

7.2. Effluent Monitoring

Monitoring has been established at Discharge Point 001 (Monitoring Location EFF-001) for pollutants with effluent limitations. Effluent monitoring has been established with continuous (i.e., temperature), daily (i.e., pH and total residual chlorine), monthly (i.e., BOD_5, oil and grease, TSS, and turbidity, settleable solids, copper, lead, nickel, zinc, benzo(a)pyrene, benzo(a)anthracene, chrysene, 4,4'-DDT, and PCBs), quarterly (i.e., total coliform, fecal coliform, chronic toxicity, and total ammonia), and annual frequencies (i.e., TCDD equivalents). Monitoring for these parameters are necessary to determine compliance with effluent limitations and to provide data for evaluating reasonable potential for the discharge to cause or contribute to an exceedance of applicable water quality objectives during future permit reissuances.

The SIP states that the Los Angeles 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

all other priority pollutants without corresponding effluent limitations during the permit term. Data generated from this monitoring is necessary for evaluating reasonable potential for the discharge to cause or contribute to an exceedance of applicable water quality objectives contained in the SIP during future permit reissuances.

Monitoring requirements (Table E-2, Page E-7) for MBAS, MTBE, salinity, TPH as Gasoline (C_4-C_{12}), TPH as Diesel (C_{13}-C_{22}), and TPH as Kerosene (C_{23+}) have been retained from Order R4-2016-0121 as these are pollutants of concern with respect to stormwater and ground water discharges which may be impacted by the near-by tank farm.

As required in the MRP, the discharger must collect sufficient sample volume during at least one sample event per permit term, to conduct sediment (effluent TSS) monitoring. This requirement is necessary to accurately characterize the sediment discharged from the Facility. This sediment monitoring is required only if the effluent monitoring does not trigger sediment monitoring during the five-year permit term.

7.3. **Whole Effluent Toxicity Testing Requirements**

Whole effluent toxicity (WET) testing protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. This Order requires routine quarterly monitoring for chronic toxicity which is a more stringent measure of the aggregate toxic properties of the discharge than acute toxicity. For this permit, chronic toxicity in the discharge is limited and evaluated using U.S. EPA's 2010 TST statistical approach.

7.4. **Receiving Water Monitoring**

7.4.1. **Surface Water**

The SIP requires monitoring of the upstream receiving water for the CTR priority pollutants, including TCDD equivalents, to determine reasonable potential. Monitoring requirements are included in the MRP (Attachment E) to determine compliance with the receiving water limitations established in Limitations and Discharge Requirements, Receiving Water Limitations, Section V.A. Receiving water monitoring requirements included Order R4-2016-0121 have been retained without modification.

This Order implements the revised ammonia water quality objectives which are expressed as un-ionized ammonia. Since the equation for conversion of unionized ammonia objectives to total ammonia objectives relies on pH, temperature and salinity, this Order includes monitoring requirements for these parameters. This Order also includes annual monitoring for the CTR pollutants in order to obtain the receiving water data as background information for the determination of reasonable potential.

7.4.2. **Groundwater – Not Applicable**

7.5. **Other Monitoring Requirements**

a. Visual Monitoring Requirements
The Discharger is required to conduct visual observations of all discharges in the vicinity of the discharge to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor. These requirements are consistent with requirements of other dischargers in the Region.

b. Regional Monitoring
Regional monitoring is required to determine compliance with the assigned wasteload and load allocations specified in the Harbors Toxics TMDL. Since May 2, 2016, the Discharger has joined the Los Angeles Gateway Region Integrated Regional Water Management Joint Powers Authority (GWMA) in sharing costs in the Harbor Toxics TMDL Coordinated Compliance Monitoring and Reporting to address and monitor pollutants as specified in the Harbor Toxics TMDL. This satisfies the requirement in Order R4-2016-0121 for the Discharger to either develop a site-specific plan or to join a group in the Harbor Toxics TMDL monitoring. The GWMA's Coordinated Compliance Monitoring and Reporting Plan (CCMRP; Anchor QEA 2019a) outlines the monitoring activities being conducted by the cooperating parties for the Greater Harbor Waters. The sample collection methods prescribed within the CCMRP are consistent with the California State Surface Water Ambient Monitoring Program (SWAMP). Compliance monitoring and reporting activities are being conducted in accordance with the Programmatic Quality Assurance Project Plan (PQAPP; Anchor QEA 2014).

GWMA has been submitting Annual Reports for Greater Los Angeles and Long Beach Harbor Waters under the Harbor Toxics TMDL Coordinated Compliance Monitoring and Reporting to the Los Angeles Water Board. According to the 2020/2021 annual report, in general, water quality in the Inner Harbor continues to meet water quality objectives to protect beneficial uses of the receiving water. The exceptions are chemical results show some exceedances of CTR criteria (aquatic life) for dissolved copper, CTR criteria (human health) for total chlordane and for total PCBs and CTR criteria (aquatic life and human health) for total DDT. The Discharger is encouraged to continue participation in GWMA's Harbor Toxics TMDL Coordinated Compliance Monitoring and Reporting.

8. PUBLIC PARTICIPATION

The Los Angeles Water Board has considered the issuance of WDRs that will serve as an NPDES permit for the Facility. As a step in the WDR adoption process, Los Angeles Water Board staff has developed tentative WDRs and has encouraged public participation in the WDR adoption process.

8.1. **Notification of Interested Parties**

The Los Angeles 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 through email and public notice.

The public had access to the agenda and any changes in dates and locations through the Los Angeles Water Board's website at http://www.waterboards.ca.gov/losangeles.

8.2. **Written Comments**

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process electronically at losangeles@waterboards.ca.gov with a copy to niels.vaneybergen@waterboards.ca.gov.

To be fully responded to by staff and considered by the Los Angeles Water Board, the written comments were due at the Los Angeles Water Board office by **5:00 p.m. on March 18, 2022.**

8.3. **Public Hearing**

The Los Angeles 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:	**April 14, 2022**
Time:	**9:00 AM**
Location:	**The City of Simi Valley, City Council Chambers** **2929 Tapo Canyon Road** **Simi Valley, California 93063**

Additional information about the location of the hearing and options for participating was made available 10 days before the hearing. Any person desiring to receive future notices about any proposed Board action regarding this Discharger, please contact Niels van Eybergen at niels.vaneybergen@waterboards.ca.gov, to be included on the e-mail list.

Interested persons were invited to attend. At the public hearing, the Los Angeles Water Board heard testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

8.4. **Reconsideration of Waste Discharge Requirements**

Any person aggrieved by this action of the Los Angeles 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., within 30 calendar days of the date of adoption of this Order at the following address, 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:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100
Or by email at waterqualitypetitions@waterboards.ca.gov

For instructions on how to file a water quality petition for review, see:

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

8.5. Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Los Angeles Water Board by calling 213-576-6600.

The tentative WDRs, comments received and response to comments are also available on the Los Angeles Water Board's website at:

http://www.waterboards.ca.gov/losangeles/board_decisions/tentative_orders/index.shtml

8.6. Register of Interested Persons

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

8.7. Additional Information

Requests for additional information or questions regarding this order should be directed to Niels van Eybergen at niels.vaneybergen@waterboards.ca.gov.

ATTACHMENT G – STORMWATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. IMPLEMENTATION SCHEDULE

A stormwater pollution prevention plan (SWPPP) shall be developed and submitted to the Los Angeles 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 Los Angeles Water Board, or no later than 90 days from the date of the submittal of the SWPPP to the Los Angeles Water Board (whichever comes first).

2. 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 stormwater discharges and authorized non-stormwater 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 stormwater discharges and authorized non-stormwater 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 Los Angeles Water Board inspectors.

3. PLANNING AND ORGANIZATION

3.1 Pollution Prevention Team

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a stormwater 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, stormwater pollution prevention teams may consist of one individual where appropriate.

3.2 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 permit. Facility operators should identify any existing facility plans that contain stormwater 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.

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

Phase	Tasks
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

4. 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.

The following information shall be included on the site map:

A. The facility boundaries; the outline of all stormwater 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 stormwater discharges and authorized non-stormwater discharges may be received.

B. The location of the stormwater collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect stormwater discharges, authorized non-stormwater discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, skim ponds, 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 6.1.4. 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.

5. 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.

"Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any chemical the facility is required to report pursuant to section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with stormwater discharges.

6. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES

The SWPPP shall include a narrative description of the facility's industrial activities, as identified in section 4.5. above, associated potential pollutant sources, and potential pollutants that could be discharged in stormwater discharges or authorized non-stormwater discharges. At a minimum, the following items related to a facility's industrial activities shall be considered:

6.1. **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.

6.2. **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.

6.3. **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.

6.4. **Significant Spills and Leaks.** Describe materials that have spilled or leaked in significant quantities in stormwater discharges or authorized non-stormwater discharges since April 17, 1994. Include toxic chemicals (listed in 40 Code of Federal Regulations (CFR), part 302) that have been discharged to stormwater 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 CFR, parts 110, 117, and 302).

The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to stormwater or non-stormwater 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.

6.5. **Non-Stormwater Discharges.** Facility operators shall investigate the facility to identify all non-stormwater 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-stormwater discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the authorized non-stormwater discharges and associated drainage area.

Non-stormwater discharges that are not authorized by this Permit, other waste discharge requirements, or other NPDES permits are prohibited. The SWPPP must include BMPs to prevent or reduce contact of authorized non-stormwater discharges with significant materials (as defined in Footnote 1 of section 5 above) or equipment.

6.6. **Soil Erosion.** Describe the facility locations where soil erosion may occur as a result of industrial activity, stormwater discharges associated with industrial activity, or authorized non-stormwater discharges.

6.7. **Trash.** Describe the facility locations where trash may be generated as a result of facility operations and on-site activities.

The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and potential pollutants. This information should be summarized similarly to Table B. The last column of Table B, "Control Practices", should be completed in accordance with section 8. below.

7. ASSESSMENT OF POTENTIAL POLLUTANT SOURCES

The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in section 6. above to determine:

a. Which areas of the facility are likely sources of pollutants in stormwater discharges and authorized non-stormwater discharges, and

b. Which pollutants are likely to be present in stormwater discharges and authorized non-stormwater discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current stormwater BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to stormwater or authorized non-stormwater discharges; history of spill or leaks; and run-on from outside sources.

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 stormwater discharges and authorized non-stormwater discharges.

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in section 8 below.

8. ASSESSMENT OF AVOIDABILITY AND UNAVOIDABILITY OF STORMWATER EVENT RELATED BYPASSES

The SWPPP shall include an evaluation of the avoidability and feasible alternatives to bypass events. The evaluation should consider the following types of information:

a. A review of the magnitude of each stormwater events leading to bypass in the previous permit term. The stormwater events related to each bypass need to be defined and quantified. The LA County Department of Public Works Hydrology Manual provides useful guidance for this analysis. For each bypass event, the related design storm should be quantified based on the three components:

   1. Rainfall intensity-duration-frequency (IDF)

   2. The unit hyetograph curve

   3. The isohyets

b. Categorize bypass events into 2-year, 5-year, 10-year, 25-year and 50-year frequency design storms. The design storm frequency categories need to be updated, if necessary, based on existing meteorological data and climate change scenarios.

c. Consider the current retention basin capacity for the ability to store stormwater runoff for 5-, 10-, 15-, 30-, 60-, 120-, 180-, 240-, 300-, 720- and 1440-minutes rainfall durations per design storm frequency category as mentioned under b.

d. Calculate required stormwater retention (basin) capacity improvement dimensions per rainfall duration and design storm frequency categories to mitigate potential insufficient stormwater retention capacity.

e. Calculate required stormwater retention (basin) capacity improvement design & build alternatives per rainfall duration and design storm frequency categories to mitigate potential insufficient stormwater retention capacity.

9. STORMWATER BEST MANAGEMENT PRACTICES

The SWPPP shall include a narrative description of the stormwater BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (sections 6. and 7. above). The BMPs shall be developed and implemented to reduce or prevent pollutants in stormwater discharges and authorized non-stormwater 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 onto and off fueling area.	Fuel oil	Use spill and overflow protection Minimize run-on of stormwater into the fueling area. Cover fueling area. Use dry cleanup methods rather than hosing down area. Implement proper spill prevention control program. Implement proper spill prevention control program. Implement adequate preventative maintenance program to preventive tank and line leaks. Inspect fueling areas regularly to detect problems before they occur.

				Train employees on proper fueling, cleanup, and spill response techniques.

The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The description shall also include a discussion on the effectiveness of each BMP to reduce or prevent pollutants in stormwater discharges and authorized non-stormwater discharges. The SWPPP shall provide a summary of all BMPs implemented for each pollutant source. This information should be summarized similarly to Table B.

Facility operators shall consider the following BMPs for implementation at the facility:

1. **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 stormwater discharges and authorized non-stormwater 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 8.2. below). Below is a list of non-structural BMPs that should be considered:

   A. **Good Housekeeping.** Good housekeeping generally consists of practical procedures to maintain a clean and orderly facility.

   B. **Preventive Maintenance.** Preventive maintenance includes the regular inspection and maintenance of structural stormwater controls (catch basins, skim ponds, etc.) as well as other facility equipment and systems.

   C. **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.

   D. **Material Handling and Storage.** This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to stormwater and authorized non-stormwater discharges.

   E. **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 stormwater. 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.

   F. **Waste Handling/Recycling.** This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.

G. **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.

H. **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.

I. **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.

J. **Quality Assurance.** This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

2. Structural BMPs

Where non-structural BMPs as identified in section 8.1. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in stormwater discharges and authorized non-stormwater discharges. Below is a list of structural BMPs that should be considered:

A. **Overhead Coverage.** This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with stormwater and authorized non-stormwater discharges.

B. **Retention Ponds.** This includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow stormwater to discharge from the facility.

C. **Control Devices.** This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.

D. **Secondary Containment Structures.** This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.

E. **Treatment.** This includes inlet controls, infiltration devices, skim ponds, detention ponds, vegetative swales, etc. that reduce the pollutants in stormwater discharges and authorized non-stormwater discharges.

10. ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION

The Facility operator shall conduct one comprehensive site compliance evaluation each year. The SWPPP shall be revised, as appropriate, and submitted to the Los Angeles Water Board along with the annual monitoring report. The revisions shall be implemented no later than 90 days after submission. The evaluation is subject to review by the Los Angeles Water Board Executive Officer and modifications may be required. 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 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 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 5.4.5 of Attachment D.

11. SWPPP GENERAL REQUIREMENTS

11.1. The SWPPP shall be retained on site and made available upon request of a representative of the Los Angeles Water Board and/or local stormwater management agency (local agency) which receives the stormwater discharges.

11.2. The Los Angeles 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 Los Angeles 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 Los Angeles 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 Los Angeles Water Board and/or local agency that the revisions have been implemented.

11.3. 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 stormwater discharge, (ii) cause a new area of industrial activity at the facility to be exposed to stormwater, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.

11.4. 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.

11.5. 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 Los Angeles 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 stormwater discharges and authorized non-stormwater discharges. Such reports are subject to Los Angeles Water Board approval and/or modifications. Facility operators shall provide written notification to the Los Angeles Water Board within 14 days after the SWPPP revisions are implemented.

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

ATTACHMENT H – REASONABLE POTENTIAL ANALYSIS

CTR#	Parameters	Units	CV	MEC	CTR Saltwater Quality Criteria (ug/L) C acute = CMC tot	CTR Saltwater Quality Criteria (ug/L) C chronic = CCC tot	Human health criteria for consumption of organisms only	Harbor Toxics TMDL WLA's	ISWEBE Criteria	Lowest C
1	Antimony	µg/L		2.54			4300.00			4300.00
2	Arsenic	µg/L		18.5	69.00	36.00				36.00
3	Beryllium	µg/L		No Criteria			Narrative			No Criteria
4	Cadmium	µg/L		0.442	42.25	9.36	Narrative			9.36
5a	Chromium (III)	µg/L		No Criteria			Narrative			No Criteria
5b	Chromium (VI)	µg/L		1.3	1100.00	50.00	Narrative			50.00
6	Copper	µg/L	3.7	104		3.73		3.73		3.73
7	Lead	µg/L	2.7	22.8		8.52	Narrative	8.52		8.52
8	Mercury	µg/L	0.6	0.209			0.051		0.004	0.004
9	Nickel	µg/L	6.7	282	74.75	8.65	4600.00			8.65
10	Selenium	µg/L		45.1	290.58	71.14	Narrative			71.14
11	Silver	µg/L		0.052	2.24					2.24
12	Thallium	µg/L		0.029			6.30			6.30
13	Zinc	µg/L	2.8	307		85.62		85.62		85.62
14	Cyanide	µg/L	0.6	6.3	1.00	1.00	220000.00			1.00
15	Asbestos	Fibers/L		No Criteria						No Criteria
16	TCDD-equivalents	µg/L	0.6	0.0000105			0.000000014			0.000000014
17	Acrolein	µg/L		0.89			780			780
18	Acrylonitrile	µg/L					0.66			0.660
19	Benzene	µg/L		0.14			71			71.0
20	Bromoform	µg/L		8.2			360			360.0
21	Carbon Tetrachloride	µg/L		0.19			4.4			4.40
22	Chlorobenzene	µg/L		0.058			21000			21000
23	Chlorodibromomethane	µg/L		1.2			34			34.00
24	Chloroethane	µg/L		No Criteria						No Criteria
25	2-Chloroethylvinyl ether	µg/L		No Criteria						No Criteria
26	Chloroform	µg/L		No Criteria						No Criteria
27	Dichlorobromomethane	µg/L		0.46			46			46.00
28	1,1-Dichloroethane	µg/L		No Criteria						No Criteria
29	1,2-Dichloroethane	µg/L		0.077			99			99.00
30	1,1-Dichloroethylene	µg/L		0.2			3.2			3.200
31	1,2-Dichloropropane	µg/L		0.077			39			39.00
32	1,3-Dichloropropylene	µg/L		0.082			1700			1700
33	Ethylbenzene	µg/L		0.096			29000			29000
34	Methyl Bromide	µg/L		0.25			4000			4000
35	Methyl Chloride	µg/L		No Criteria			Narrative			No Criteria
36	Methylene Chloride	µg/L		1.3			1600			1600.0
37	1,1,2,2-Tetrachloroethane	µg/L		0.064			11			11.00

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38	Tetrachloroethylene	µg/L		0.094			8.85			8.9
39	Toluene	µg/L		0.068			200000			200000
40	1,2-Trans-Dichloroethylene	µg/L		0.18			140000			140000
41	1,1,1-Trichloroethane	µg/L		No Criteria			Narrative			No Criteria
42	1,1,2-Trichloroethane	µg/L		0.12			42			42.0
43	Trichloroethylene	µg/L		0.14			81			81.0
44	Vinyl Chloride	µg/L		0.26			525			525
45	2-Chlorophenol	µg/L		0.044			400			400
46	2,4-Dichlorophenol	µg/L		0.032			790			790
47	2,4-Dimethylphenol	µg/L		0.18			2300			2300
48	2-methyl-4,6-Dinitrophenol	µg/L		0.82			765			765.0
49	2,4-Dinitrophenol	µg/L		0.93			14000			14000
50	2-Nitrophenol	µg/L		No Criteria						No Criteria
51	4-Nitrophenol	µg/L		No Criteria						No Criteria
52	3-Methyl-4-Chlorophenol	µg/L		No Criteria						No Criteria
53	Pentachlorophenol	µg/L		0.1	13.00	7.90	8.2			7.90
54	Phenol	µg/L		0.03			4600000			4600000
55	2,4,6-Trichlorophenol	µg/L		0.033			6.5			6.5
56	Acenaphthene	µg/L		0.059			2700			2700
57	Acenaphthylene	µg/L		No Criteria						No Criteria
58	Anthracene	µg/L		0.05			110000			110000
59	Benzidine	µg/L					0.00054			0.00054
60	Benzo(a)Anthracene	µg/L	0.6	0.046			0.049	0.049		0.049
61	Benzo(a)Pyrene	µg/L	0.6	0.048			0.049	0.049		0.049
62	Benzo(b)Fluoranthene	µg/L		0.04			0.049			0.049
63	Benzo(ghi)Perylene	µg/L		No Criteria						No Criteria
64	Benzo(k)Fluoranthene	µg/L		0.039			0.049			0.049
65	Bis(2-Chloroethoxy)Methane	µg/L		No Criteria						No Criteria
66	Bis(2-Chloroethyl)Ether	µg/L		0.036			1.4			1.400
67	Bis(2-Chloroisopropyl)Ether	µg/L		0.039			170000			170000
68	Bis(2-Ethylhexyl)Phthalate	µg/L		1.7			5.9			5.9
69	4-Bromophenyl Phenyl Ether	µg/L		No Criteria						No Criteria
70	Butylbenzyl Phthalate	µg/L		0.48			5200			5200
71	2-Chloronaphthalene	µg/L		0.053			4300			4300
72	4-Chlorophenyl Phenyl Ether	µg/L		No Criteria						No Criteria
73	Chrysene	µg/L	0.6				0.049	0.049		0.0490
74	Dibenzo(a,h)Anthracene	µg/L		0.034			0.049			0.0490
75	1,2-Dichlorobenzene	µg/L		0.042			17000			17000
76	1,3-Dichlorobenzene	µg/L		0.041			2600			2600

CTR#	Parameters	Units	CV	MEC	CTR Saltwater Quality Criteria (ug/L) C acute = CMC tot	CTR Saltwater Quality Criteria (ug/L) C chronic = CCC tot	Human health criteria for consumption of organisms only	Harbor Toxics TMDL WLA's	ISWEBE Criteria	Lowest C
77	1,4-Dichlorobenzene	µg/L		0.049			2600			2600
78	3,3 Dichlorobenzidine	µg/L					0.077			0.08
79	Diethyl Phthalate	µg/L		0.094			120000			120000
80	Dimethyl Phthalate	µg/L		0			2900000			2900000
81	Di-n-Butyl Phthalate	µg/L		1.8			12000			12000
82	2,4-Dinitrotoluene	µg/L		0.027			9.10			9.10
83	2,6-Dinitrotoluene	µg/L		No Criteria						No Criteria
84	Di-n-Octyl Phthalate	µg/L		No Criteria						No Criteria
85	1,2-Diphenylhydrazine	µg/L		0.043			0.54			0.540
86	Fluoranthene	µg/L		0.041			370			370
87	Fluorene	µg/L		0.048			14000			14000
88	Hexachlorobenzene	µg/L					0.00077			0.00077
89	Hexachlorobutadiene	µg/L		0.049			50			50.00
90	Hexachlorocyclopentadiene	µg/L		0.033			17000			17000
91	Hexachloroethane	µg/L		0.05			8.9			8.9
92	Indeno(1,2,3-cd)Pyrene	µg/L		0.041			0.049			0.0490
93	Isophorone	µg/L		0.051			600			600.0
94	Naphthalene	µg/L		No Criteria						No Criteria
95	Nitrobenzene	µg/L		0.062			1900			1900
96	N-Nitrosodimethylamine	µg/L		0.13			8.10			8.10000
97	N-Nitrosodi-n-Propylamine	µg/L		0.032			1.40			1.400
98	N-Nitrosodiphenylamine	µg/L		0.044			16			16.0
99	Phenanthrene	µg/L		No Criteria						No Criteria
100	Pyrene	µg/L		0.046			11000			11000
101	1,2,4-Trichlorobenzene	µg/L		No Criteria						No Criteria
102	Aldrin	µg/L			1.30		0.00014			0.00014
103	alpha-BHC	µg/L		0.0008			0.013			0.0130
104	beta-BHC	µg/L		0.0009			0.046			0.046
105	gamma-BHC	µg/L		0.0017			0.063			0.063
106	delta-BHC	µg/L		No Criteria						No Criteria
107	Chlordane	µg/L			0.09	0.004	0.00059			0.00059
108	4,4'-DDT	µg/L	0.6		0.13	0.001	0.00059	0.00059		0.00059
109	4,4'-DDE (linked to DDT)	µg/L		0.0005			0.00059			0.00059
110	4,4'-DDD	µg/L		0.0008			0.00084			0.00084
111	Dieldrin	µg/L			0.71	0.0019	0.00014			0.00014
112	alpha-Endosulfan	µg/L	0.6	0.012	0.034	0.0087	240			0.0087
113	beta-Endolsulfan	µg/L		0.0005	0.034	0.0087	240			0.0087
114	Endosulfan Sulfate	µg/L		0.0006			240			240
115	Endrin	µg/L		0.0007	0.037	0.0023	0.81			0.0023

CTR#	Parameters	Units	CV	MEC	CTR Saltwater Quality Criteria (ug/L) C acute = CMC tot	CTR Saltwater Quality Criteria (ug/L) C chronic = CCC tot	Human health criteria for consumption of organisms only	Harbor Toxics TMDL WLA's	ISWEBE Criteria	Lowest C
116	Endrin Aldehyde	µg/L		0.0019			0.81			0.81
117	Heptachlor	µg/L			0.053	0.0036	0.00021			0.00021
118	Heptachlor Epoxide	µg/L			0.053	0.0036	0.00011			0.00011
119-125	PCBs sum (2)	µg/L	0.6	0.039		0.03	0.00017	0.00017		0.00017
126	Toxaphene	ug/L			0.21	0.0002	0.00075			0.0002

CTR#	Parameters	Units	RPA: MEC >= Lowest C	RPA: Tier 1 - Need limit?	RPA: B Available (Y/N)?	RPA: Are all B data points non-detects (Y/N)?	RPA: If all data points ND Enter the min detection limit (MDL) (ug/L)	RPA: Enter the pollutant B detected max conc (ug/L)	RPA: If all B is ND, is MDL>C?	RPA: If B>C, effluent limit required	RPA: Tier 3 - other info. ?
1	Antimony	µg/L	No	No	Y	N		0.7		B<=C, Step 7	
2	Arsenic	µg/L	No	No	Y	N		1.38		B<=C, Step 7	
3	Beryllium	µg/L	No Criteria	No Criteria	Y	N		0.008		No Criteria	No Criteria
4	Cadmium	µg/L	No	No	Y	N		0.033		B<=C, Step 7	
5a	Chromium (III)	µg/L	No Criteria	No Criteria	Y	N		1.1		No Criteria	No Criteria
5b	Chromium (VI)	µg/L	No	No	Y	N		1.7		B<=C, Step 7	
6	Copper	µg/L	Yes	Yes	Y	N		1.47		B<=C, Step 7	
7	Lead	µg/L	Yes	Yes	Y	N		0.98		B<=C, Step 7	
8	Mercury	µg/L	Yes	Yes	Y	Y	0.0453		Y	No detected value of B, Step 7	
9	Nickel	µg/L	Yes	Yes	Y	N		0.43		B<=C, Step 7	
10	Selenium	µg/L	No	No	Y	N		1.79		B<=C, Step 7	
11	Silver	µg/L	No	No	Y	N		0.014		B<=C, Step 7	
12	Thallium	µg/L	No	No	Y	N		0.019		B<=C, Step 7	
13	Zinc	µg/L	Yes	Yes	Y	N		24.9		B<=C, Step 7	
14	Cyanide	µg/L	Yes	Yes	Y	Y	0.69		N	No detected value of B, Step 7	
15	Asbestos	Fibers/L	No Criteria	No Criteria	Y	Y	0.19		N	No Criteria	No Criteria
16	TCDD-equivalents	µg/L	Yes	Yes	Y	Y	0		N	No detected value of B, Step 7	
17	Acrolein	µg/L	No	No	Y	Y	0.89		N	No detected value of B, Step 7	
18	Acrylonitrile	µg/L			Y	Y	0.83		Y	No detected value of B, Step 7	
19	Benzene	µg/L	No	No	Y	N		0.071		B<=C, Step 7	
20	Bromoform	µg/L	No	No	Y	N		0.24		B<=C, Step 7	
21	Carbon Tetrachloride	µg/L	No	No	Y	Y	0.19		N	No detected value of B, Step 7	
22	Chlorobenzene	µg/L	No	No	Y	Y	0.058		N	No detected value of B, Step 7	
23	Chlorodibromomethane	µg/L	No	No	Y	Y	0.089		N	No detected value of B, Step 7	
24	Chloroethane	µg/L	No Criteria	No Criteria	Y	Y	0.26		N	No Criteria	No Criteria

CTR#	Parameters	Units	RPA: MEC >= Lowest C	RPA: Tier 1 - Need limit?	RPA: B Available (Y/N)?	RPA: Are all B data points non-detects (Y/N)?	RPA: If all data points ND Enter the min detection limit (MDL) (ug/L)	RPA: Enter the pollutant B detected max conc (ug/L)	RPA: If all B is ND, is MDL>C?	RPA: If B>C, effluent limit required	RPA: Tier 3 - other info. ?
25	2-Chloroethylvinyl ether	µg/L	No Criteria	No Criteria	Y	Y	0.3		N	No Criteria	No Criteria
26	Chloroform	µg/L	No Criteria	No Criteria	Y	Y	0.12		N	No Criteria	No Criteria
27	Dichlorobromomethane	µg/L	No	No	Y	Y	0.084		N	No detected value of B, Step 7	
28	1,1-Dichloroethane	µg/L	No Criteria	No Criteria	Y	Y	0.13		N	No Criteria	No Criteria
29	1,2-Dichloroethane	µg/L	No	No	Y	Y	0.077		N	No detected value of B, Step 7	
30	1,1-Dichloroethylene	µg/L	No	No	Y	Y	0.2		N	No detected value of B, Step 7	
31	1,2-Dichloropropane	µg/L	No	No	Y	Y	0.077		N	No detected value of B, Step 7	
32	1,3-Dichloropropylene	µg/L	No	No	Y	Y	0.082		N	No detected value of B, Step 7	
33	Ethylbenzene	µg/L	No	No	Y	Y	0.096		N	No detected value of B, Step 7	
34	Methyl Bromide	µg/L	No	No	Y	Y	0.25		N	No detected value of B, Step 7	
35	Methyl Chloride	µg/L	No Criteria	No Criteria	Y	Y	0.13		N	No Criteria	No Criteria
36	Methylene Chloride	µg/L	No	No	Y	N	1.1		N	No detected value of B, Step 7	
37	1,1,2,2-Tetrachloroethane	µg/L	No	No	Y	Y	0.064		N	No detected value of B, Step 7	
38	Tetrachloroethylene	µg/L	No	No	Y	Y	0.094		N	No detected value of B, Step 7	
39	Toluene	µg/L	No	No	Y	Y	0.068		N	No detected value of B, Step 7	
40	1,2-Trans-Dichloroethylene	µg/L	No	No	Y	Y	0.18		N	No detected value of B, Step 7	
41	1,1,1-Trichloroethane	µg/L	No Criteria	No Criteria	Y	Y	0.094		N	No Criteria	No Criteria
42	1,1,2-Trichloroethane	µg/L	No	No	Y	Y	0.12		N	No detected value of B, Step 7	
43	Trichloroethylene	µg/L	No	No	Y	Y	0.14		N	No detected value of B, Step 7	
44	Vinyl Chloride	µg/L	No	No	Y	Y	0.086		N	No detected value of B, Step 7	
45	2-Chlorophenol	µg/L	No	No	Y	Y	0.086		N	No detected value of B, Step 7	
46	2,4-Dichlorophenol	µg/L	No	No	Y	Y	0.044		N	No detected value of B, Step 7	
47	2,4-Dimethylphenol	µg/L	No	No	Y	Y	0.032		N	No detected value of B, Step 7	
48	2-methyl-4,6-Dinitrophenol	µg/L	No	No	Y	Y	0.82		N	No detected value of B, Step 7	
49	2,4-Dinitrophenol	µg/L	No	No	Y	Y	0.93		N	No detected value of B, Step 7	
50	2-Nitrophenol	µg/L	No Criteria	No Criteria	Y	Y	0.054		N	No Criteria	No Criteria
51	4-Nitrophenol	µg/L	No Criteria	No Criteria	Y	Y	0.88		N	No Criteria	No Criteria
52	3-Methyl-4-Chlorophenol	µg/L	No Criteria	No Criteria	Y	Y	0.037		N	No Criteria	No Criteria
53	Pentachlorophenol	µg/L	No	No	Y	Y	0.1		N	No detected value of B, Step 7	
54	Phenol	µg/L	No	No	Y	Y	0.03		N	No detected value of B, Step 7	
55	2,4,6-Trichlorophenol	µg/L	No	No	Y	Y	0.033		N	No detected value of B, Step 7	
56	Acenaphthene	µg/L	No	No	Y	Y	0.06		N	No detected value of B, Step 7	
57	Acenaphthylene	µg/L	No Criteria	No Criteria	Y	Y	0.05		N	No Criteria	No Criteria
58	Anthracene	µg/L	No	No	Y	Y	0.04		N	No detected value of B, Step 7	
59	Benzidine	µg/L			Y	Y	0.71		Y	No detected value of B, Step 7	
60	Benzo(a)Anthracene	µg/L	No	No	Y	Y	0.047		N	No detected value of B, Step 7	

CTR#	Parameters	Units	RPA: MEC >= Lowest C	RPA: Tier 1 - Need limit?	RPA: B Available (Y/N)?	RPA: Are all B data points non-detects (Y/N)?	RPA: If all data points ND Enter the min detection limit (MDL) (ug/L)	RPA: Enter the pollutant B detected max conc (ug/L)	RPA: If all B is ND, is MDL>C?	RPA: If B>C, effluent limit required	RPA: Tier 3 - other info. ?
61	Benzo(a)Pyrene	µg/L	No	No	Y	Y	0.049		N	No detected value of B, Step 7	
62	Benzo(b)Fluoranthene	µg/L	No	No	Y	Y	0.04		N	No detected value of B, Step 7	
63	Benzo(ghi)Perylene	µg/L	No Criteria	No Criteria	Y	Y	0.04		N	No Criteria	No Criteria
64	Benzo(k)Fluoranthene	µg/L	No	No	Y	Y	0.039		N	No detected value of B, Step 7	
65	Bis(2-Chloroethoxy)Methane	µg/L	No Criteria	No Criteria	Y	Y	0.057		N	No Criteria	No Criteria
66	Bis(2-Chloroethyl)Ether	µg/L	No	No	Y	Y	0.037		N	No detected value of B, Step 7	
67	Bis(2-Chloroisopropyl)Ether	µg/L	No	No	Y	Y	0.039		N	No detected value of B, Step 7	
68	Bis(2-Ethylhexyl)Phthalate	µg/L	No	No	Y	Y	1.7		N	No detected value of B, Step 7	
69	4-Bromophenyl Phenyl Ether	µg/L	No Criteria	No Criteria	Y	Y	0.043		N	No Criteria	No Criteria
70	Butylbenzyl Phthalate	µg/L	No	No	Y	N		0.28		B<=C, Step 7	
71	2-Chloronaphthalene	µg/L	No	No	Y	Y	0.053		N	No detected value of B, Step 7	
72	4-Chlorophenyl Phenyl Ether	µg/L	No Criteria	No Criteria	Y	Y	0.037		N	No Criteria	No Criteria
73	Chrysene	µg/L			Y	Y	0.049		N	No detected value of B, Step 7	
74	Dibenzo(a,h)Anthracene	µg/L	No	No	Y	Y	0.034		N	No detected value of B, Step 7	
75	1,2-Dichlorobenzene	µg/L	No	No	Y	Y	0.042		N	No detected value of B, Step 7	
76	1,3-Dichlorobenzene	µg/L	No	No	Y	Y	0.041		N	No detected value of B, Step 7	
77	1,4-Dichlorobenzene	µg/L	No	No	Y	Y	0.049		N	No detected value of B, Step 7	
78	3,3 Dichlorobenzidine	µg/L			Y	Y	1.2		Y	No detected value of B, Step 7	
79	Diethyl Phthalate	µg/L	No	No	Y	Y	0.096		N	No detected value of B, Step 7	
80	Dimethyl Phthalate	µg/L	No	No	Y	Y	0.061		N	No detected value of B, Step 7	
81	Di-n-Butyl Phthalate	µg/L	No	No	Y	N		0.19		B<=C, Step 7	
82	2,4-Dinitrotoluene	µg/L	No	No	Y	Y	0.028		N	No detected value of B, Step 7	
83	2,6-Dinitrotoluene	µg/L	No Criteria	No Criteria	Y	Y	0.028		N	No Criteria	No Criteria
84	Di-n-Octyl Phthalate	µg/L	No Criteria	No Criteria	Y	Y	0.036		N	No Criteria	No Criteria
85	1,2-Diphenylhydrazine	µg/L	No	No	Y	Y	0.043		N	No detected value of B, Step 7	
86	Fluoranthene	µg/L	No	No	Y	Y	0.041		N	No detected value of B, Step 7	
87	Fluorene	µg/L	No	No	Y	Y	0.049		N	No detected value of B, Step 7	
88	Hexachlorobenzene	µg/L			Y	Y	0.048		Y	No detected value of B, Step 7	
89	Hexachlorobutadiene	µg/L	No	No	Y	Y	0.049		N	No detected value of B, Step 7	
90	Hexachlorocyclopentadiene	µg/L	No	No	Y	Y	0.033		N	No detected value of B, Step 7	
91	Hexachloroethane	µg/L	No	No	Y	Y	0.05		N	No detected value of B, Step 7	
92	Indeno(1,2,3-cd)Pyrene	µg/L	No	No	Y	Y	0.042		N	No detected value of B, Step 7	
93	Isophorone	µg/L	No	No	Y	Y	0.051		N	No detected value of B, Step 7	
94	Naphthalene	µg/L	No Criteria	No Criteria	Y	Y	0.047		N	No Criteria	No Criteria
95	Nitrobenzene	µg/L	No	No	Y	Y	0.062		N	No detected value of B, Step 7	
96	N-Nitrosodimethylamine	µg/L	No	No	Y	Y	0.13		N	No detected value of B, Step 7	

CTR#	Parameters	Units	RPA: MEC >= Lowest C	RPA: Tier 1 - Need limit?	RPA: B Available (Y/N)?	RPA: Are all B data points non-detects (Y/N)?	RPA: If all data points ND Enter the min detection limit (MDL) (ug/L)	RPA: Enter the pollutant B detected max conc (ug/L)	RPA: If all B is ND, is MDL>C?	RPA: If B>C, effluent limit required	RPA: Tier 3 - other info. ?
97	N-Nitrosodi-n-Propylamine	µg/L	No	No	Y	Y	0.032		N	No detected value of B, Step 7	
98	N-Nitrosodiphenylamine	µg/L	No	No	Y	Y	0.044		N	No detected value of B, Step 7	
99	Phenanthrene	µg/L	No Criteria	No Criteria	Y	Y	0.048		N	No Criteria	No Criteria
100	Pyrene	µg/L	No	No	Y	Y	0.046		N	No detected value of B, Step 7	
101	1,2,4-Trichlorobenzene	µg/L	No Criteria	No Criteria	Y	Y	0.055		N	No Criteria	No Criteria
102	Aldrin	µg/L			Y	Y	0.0007		Y	No detected value of B, Step 7	
103	alpha-BHC	µg/L	No	No	Y	Y	0.0008		N	No detected value of B, Step 7	
104	beta-BHC	µg/L	No	No	Y	Y	0.0017		N	No detected value of B, Step 7	
105	gamma-BHC	µg/L	No	No	Y	Y	0.0009		N	No detected value of B, Step 7	
106	delta-BHC	µg/L	No Criteria	No Criteria	Y	Y	0.0011		N	No Criteria	No Criteria
107	Chlordane	µg/L			Y	Y	0.0065		Y	No detected value of B, Step 7	
108	4,4'-DDT	µg/L			Y	Y	0.0016		Y	No detected value of B, Step 7	
109	4,4'-DDE (linked to DDT)	µg/L	No	No	Y	Y	0.0005		N	No detected value of B, Step 7	
110	4,4'-DDD	µg/L	No	No	Y	Y	0.0008		N	No detected value of B, Step 7	
111	Dieldrin	µg/L			Y	Y	0.0005		Y	No detected value of B, Step 7	
112	alpha-Endosulfan	µg/L	Yes	Yes	Y	Y	0.0007		N	No detected value of B, Step 7	
113	beta-Endolsulfan	µg/L	No	No	Y	Y	0.0006		N	No detected value of B, Step 7	
114	Endosulfan Sulfate	µg/L	No	No	Y	Y	0.0006		N	No detected value of B, Step 7	
115	Endrin	µg/L	No	No	Y	Y	0.0007		N	No detected value of B, Step 7	
116	Endrin Aldehyde	µg/L	No	No	Y	Y	0.0019		N	No detected value of B, Step 7	
117	Heptachlor	µg/L			Y	0	0		N	No detected value of B, Step 7	
118	Heptachlor Epoxide	µg/L			Y	Y	0.0004		Y	No detected value of B, Step 7	
119-125	PCBs sum (2)	µg/L	No	No	Y	Y	0.039		Y	No detected value of B, Step 7	
126	Toxaphene	ug/L			Y	Y	0.013		Y	No detected value of B, Step 7	

CTR#	Parameters	Units	RPA: Result - Need Limit?	RPA: Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA
1	Antimony	µg/L	No	MEC<C & B<=C								
2	Arsenic	µg/L	No	MEC<C & B<=C								
3	Beryllium	µg/L	Uc	No Criteria								
4	Cadmium	µg/L	No	MEC<C & B<=C								
5a	Chromium (III)	µg/L	Uc	No Criteria								
5b	Chromium (VI)	µg/L	No	MEC<C & B<=C								
6	Copper	µg/L	Yes	MEC>=C		3.34		0.08		0.12	0.46	0.46

CTR#	Parameters	Units	RPA: Result - Need Limit?	RPA: Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA
7	Lead	µg/L	Yes	MEC>=C		3.22		0.10		0.16	1.33	1.33
8	Mercury	µg/L	Yes	MEC>=C	0.004	2.01	0.008					
9	Nickel	µg/L	Yes	MEC>=C	4600	3.62	16639	0.07	5.35	0.09	0.76	0.76
10	Selenium	µg/L	No	MEC<C & B<=C								
11	Silver	µg/L	No	MEC<C & B<=C								
12	Thallium	µg/L	No	MEC<C & B<=C								
13	Zinc	µg/L	Yes	MEC>=C		3.24		0.10		0.15	12.89	12.89
14	Cyanide	µg/L	Yes	MEC>=C	220000	2.01	441362	0.32	0.32	0.53	0.53	0.32
15	Asbestos	Fiber/L	Uc	No Criteria								
16	TCDD-equivalents	µg/L	No	UD; effluent ND, MDL>C, and B is ND	0.000000014	2.01	0.000000028					
17	Acrolein	µg/L	No	MEC<C & B is ND								
18	Acrylonitrile	µg/L	No	UD; effluent ND, MDL>C, and B is ND								
19	Benzene	µg/L	No	MEC<C & B<=C								
20	Bromoform	µg/L	No	MEC<C & B<=C								
21	Carbon Tetrachloride	µg/L	No	MEC<C & B is ND								
22	Chlorobenzene	µg/L	No	MEC<C & B is ND								
23	Chlorodibromomethane	µg/L	No	MEC<C & B is ND								
24	Chloroethane	µg/L	Uc	No Criteria								
25	2-Chloroethylvinyl ether	µg/L	Uc	No Criteria								
26	Chloroform	µg/L	Uc	No Criteria								
27	Dichlorobromomethane	µg/L	No	MEC<C & B is ND								
28	1,1-Dichloroethane	µg/L	Uc	No Criteria								
29	1,2-Dichloroethane	µg/L	No	MEC<C & B is ND								
30	1,1-Dichloroethylene	µg/L	No	MEC<C & B is ND								
31	1,2-Dichloropropane	µg/L	No	MEC<C & B is ND								
32	1,3-Dichloropropylene	µg/L	No	MEC<C & B is ND								
33	Ethylbenzene	µg/L	No	MEC<C & B is ND								
34	Methyl Bromide	µg/L	No	MEC<C & B is ND								
35	Methyl Chloride	µg/L	Uc	No Criteria								
36	Methylene Chloride	µg/L	No	MEC<C & B<=C								
37	1,1,2,2-Tetrachloroethane	µg/L	No	MEC<C & B is ND								
38	Tetrachloroethylene	µg/L	No	MEC<C & B is ND								
39	Toluene	µg/L	No	MEC<C & B is ND								
40	1,2-Trans-Dichloroethylene	µg/L	No	MEC<C & B is ND								
41	1,1,1-Trichloroethane	µg/L	Uc	No Criteria								
42	1,1,2-Trichloroethane	µg/L	No	MEC<C & B is ND								
43	Trichloroethylene	µg/L	No	MEC<C & B is ND								
44	Vinyl Chloride	µg/L	No	MEC<C & B is ND								
45	2-Chlorophenol	µg/L	No	MEC<C & B is ND								
46	2,4-Dichlorophenol	µg/L	No	MEC<C & B is ND								

CTR#	Parameters	Units	RPA: Result - Need Limit?	RPA: Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA
47	2,4-Dimethylphenol	µg/L	No	MEC<C & B is ND								
48	2-methyl-4,6-Dinitrophenol	µg/L	No	MEC<C & B is ND								
49	2,4-Dinitrophenol	µg/L	No	MEC<C & B is ND								
50	2-Nitrophenol	µg/L	Uc	No Criteria								
51	4-Nitrophenol	µg/L	Uc	No Criteria								
52	3-Methyl-4-Chlorophenol	µg/L	Uc	No Criteria								
53	Pentachlorophenol	µg/L	No	MEC<C & B is ND								
54	Phenol	µg/L	No	MEC<C & B is ND								
55	2,4,6-Trichlorophenol	µg/L	No	MEC<C & B is ND								
56	Acenaphthene	µg/L	No	MEC<C & B is ND								
57	Acenaphthylene	µg/L	Uc	No Criteria								
58	Anthracene	µg/L	No	MEC<C & B is ND								
59	Benzidine	µg/L	No	UD; effluent ND, MDL>C, and B is ND								
60	Benzo(a)Anthracene	µg/L	No	MEC<C & B is ND	0.049	2.01	0.09830					
61	Benzo(a)Pyrene	µg/L	No	MEC<C & B is ND	0.049	2.01	0.09830					
62	Benzo(b)Fluoranthene	µg/L	No	MEC<C & B is ND								
63	Benzo(ghi)Perylene	µg/L	Uc	No Criteria								
64	Benzo(k)Fluoranthene	µg/L	No	MEC<C & B is ND								
65	Bis(2-Chloroethoxy)Methane	µg/L	Uc	No Criteria								
66	Bis(2-Chloroethyl)Ether	µg/L	No	MEC<C & B is ND								
67	Bis(2-Chloroisopropyl)Ether	µg/L	No	MEC<C & B is ND								
68	Bis(2-Ethylhexyl)Phthalate	µg/L	No	MEC<C & B is ND								
69	4-Bromophenyl Phenyl Ether	µg/L	Uc	No Criteria								
70	Butylbenzyl Phthalate	µg/L	No	MEC<C & B<=C								
71	2-Chloronaphthalene	µg/L	No	MEC<C & B is ND								
72	4-Chlorophenyl Phenyl Ether	µg/L	Uc	No Criteria								
73	Chrysene	µg/L	No	UD; effluent ND, MDL>C, and B is ND	0.049	2.01	0.09830					
74	Dibenzo(a,h)Anthracene	µg/L	No	MEC<C & B is ND								
75	1,2-Dichlorobenzene	µg/L	No	MEC<C & B is ND								
76	1,3-Dichlorobenzene	µg/L	No	MEC<C & B is ND								
77	1,4-Dichlorobenzene	µg/L	No	MEC<C & B is ND								
78	3,3 Dichlorobenzidine	µg/L	No	UD; effluent ND, MDL>C, and B is ND								
79	Diethyl Phthalate	µg/L	No	MEC<C & B is ND								
80	Dimethyl Phthalate	µg/L	No	MEC<C & B is ND								
81	Di-n-Butyl Phthalate	µg/L	No	MEC<C & B<=C								
82	2,4-Dinitrotoluene	µg/L	No	MEC<C & B is ND								
83	2,6-Dinitrotoluene	µg/L	Uc	No Criteria								
84	Di-n-Octyl Phthalate	µg/L	Uc	No Criteria								
85	1,2-Diphenylhydrazine	µg/L	No	MEC<C & B is ND								
86	Fluoranthene	µg/L	No	MEC<C & B is ND								

CTR#	Parameters	Units	RPA: Result - Need Limit?	RPA: Reason	AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA
87	Fluorene	µg/L	No	MEC<C & B is ND								
88	Hexachlorobenzene	µg/L	No	UD; effluent ND, MDL>C, and B is ND								
89	Hexachlorobutadiene	µg/L	No	MEC<C & B is ND								
90	Hexachlorocyclopentadiene	µg/L	No	MEC<C & B is ND								
91	Hexachloroethane	µg/L	No	MEC<C & B is ND								
92	Indeno(1,2,3-cd)Pyrene	µg/L	No	MEC<C & B is ND								
93	Isophorone	µg/L	No	MEC<C & B is ND								
94	Naphthalene	µg/L	Uc	No Criteria								
95	Nitrobenzene	µg/L	No	MEC<C & B is ND								
96	N-Nitrosodimethylamine	µg/L	No	MEC<C & B is ND								
97	N-Nitrosodi-n-Propylamine	µg/L	No	MEC<C & B is ND								
98	N-Nitrosodiphenylamine	µg/L	No	MEC<C & B is ND								
99	Phenanthrene	µg/L	Uc	No Criteria								
100	Pyrene	µg/L	No	MEC<C & B is ND								
101	1,2,4-Trichlorobenzene	µg/L	Uc	No Criteria								
102	Aldrin	µg/L	No	UD; effluent ND, MDL>C, and B is ND								
103	alpha-BHC	µg/L	No	MEC<C & B is ND								
104	beta-BHC	µg/L	No	MEC<C & B is ND								
105	gamma-BHC	µg/L	No	MEC<C & B is ND								
106	delta-BHC	µg/L	Uc	No Criteria								
107	Chlordane	µg/L	No	UD; effluent ND, MDL>C, and B is ND								
108	4,4'-DDT	µg/L	No	UD; effluent ND, MDL>C, and B is ND	0.00059	2.01	0.00118	0.32	0.04	0.53	0.00	0.00
109	4,4'-DDE (linked to DDT)	µg/L	No	MEC<C & B is ND								
110	4,4'-DDD	µg/L	No	MEC<C & B is ND								
111	Dieldrin	µg/L	No	UD; effluent ND, MDL>C, and B is ND								
112	alpha-Endosulfan	µg/L	Yes	MEC>=C	240	2.01	481.48540	0.32	0.01	0.53	0.00	0.00
113	beta-Endolsulfan	µg/L	No	MEC<C & B is ND								
114	Endosulfan Sulfate	µg/L	No	MEC<C & B is ND								
115	Endrin	µg/L	No	MEC<C & B is ND								
116	Endrin Aldehyde	µg/L	No	MEC<C & B is ND								
117	Heptachlor	µg/L	No	UD; effluent ND, MDL>C, and B is ND								
118	Heptachlor Epoxide	µg/L	No	UD; effluent ND, MDL>C, and B is ND								
119-125	PCBs sum (2)	µg/L	No	MEC<C & B is ND	0.00017	2.01	0.00034	0.32		0.53	0.02	0.02
126	Toxaphene	ug/L	No	UD; effluent ND, MDL>C, and B is ND								

CTR#	Parameters	Units	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS: Lowest AMEL	LIMITS: Lowest MDEL	Recommendation
1	Antimony	µg/L							No reasonable potential
2	Arsenic	µg/L							No reasonable potential
3	Beryllium	µg/L							No reasonable potential
4	Cadmium	µg/L							No reasonable potential

CTR#	Parameters	Units	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS: Lowest AMEL	LIMITS: Lowest MDEL	Recommendation
5a	Chromium (III)	µg/L							No reasonable potential
5b	Chromium (VI)	µg/L							No reasonable potential
6	Copper	µg/L	3.53	1.63	11.80	5	1.6	5.5	**Limit based on TMDL Harbor Toxics**
7	Lead	µg/L	3.19	4.24	10.29	13.6	4.2	13.6	**Limit based on TMDL Harbor Toxics**
8	Mercury	µg/L	1.55		3.11		0.004	0.008	**Limit based on Reasonable Potential**
9	Nickel	µg/L	3.86	2.94	13.97	11	2.9	10.6	**Limit based on previous permit**
10	Selenium	µg/L							No reasonable potential
11	Silver	µg/L							No reasonable potential
12	Thallium	µg/L							No reasonable potential
13	Zinc	µg/L	3.25	41.83	10.51	135	42	135	**Limit based on TMDL Harbor Toxics**
14	Cyanide	µg/L	1.55	0.50	3.11	1.0	0.50	1.00	**Limit based on Reasonable Potential**
15	Asbestos	Fibers/L							No reasonable potential
16	TCDD-equivalents	µg/L	1.55		3.11		0.000000014	0.000000028	**Limit based on TMDL Harbor Toxics**
17	Acrolein	µg/L							No reasonable potential
18	Acrylonitrile	µg/L							No reasonable potential
19	Benzene	µg/L							No reasonable potential
20	Bromoform	µg/L							No reasonable potential
21	Carbon Tetrachloride	µg/L							No reasonable potential
22	Chlorobenzene	µg/L							No reasonable potential
23	Chlorodibromomethane	µg/L							No reasonable potential
24	Chloroethane	µg/L							No reasonable potential
25	2-Chloroethylvinyl ether	µg/L							No reasonable potential
26	Chloroform	µg/L							No reasonable potential
27	Dichlorobromomethane	µg/L							No reasonable potential
28	1,1-Dichloroethane	µg/L							No reasonable potential
29	1,2-Dichloroethane	µg/L							No reasonable potential
30	1,1-Dichloroethylene	µg/L							No reasonable potential
31	1,2-Dichloropropane	µg/L							No reasonable potential
32	1,3-Dichloropropylene	µg/L							No reasonable potential
33	Ethylbenzene	µg/L							No reasonable potential
34	Methyl Bromide	µg/L							No reasonable potential
35	Methyl Chloride	µg/L							No reasonable potential
36	Methylene Chloride	µg/L							No reasonable potential
37	1,1,2,2-Tetrachloroethane	µg/L							No reasonable potential
38	Tetrachloroethylene	µg/L							No reasonable potential
39	Toluene	µg/L							No reasonable potential
40	1,2-Trans-Dichloroethylene	µg/L							No reasonable potential
41	1,1,1-Trichloroethane	µg/L							No reasonable potential
42	1,1,2-Trichloroethane	µg/L							No reasonable potential
43	Trichloroethylene	µg/L							No reasonable potential
44	Vinyl Chloride	µg/L							No reasonable potential
45	2-Chlorophenol	µg/L							No reasonable potential

CTR#	Parameters	Units	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS: Lowest AMEL	LIMITS: Lowest MDEL	Recommendation
46	2,4-Dichlorophenol	µg/L							No reasonable potential
47	2,4-Dimethylphenol	µg/L							No reasonable potential
48	2-methyl-4,6-Dinitrophenol	µg/L							No reasonable potential
49	2,4-Dinitrophenol	µg/L							No reasonable potential
50	2-Nitrophenol	µg/L							No reasonable potential
51	4-Nitrophenol	µg/L							No reasonable potential
52	3-Methyl-4-Chlorophenol	µg/L							No reasonable potential
53	Pentachlorophenol	µg/L							No reasonable potential
54	Phenol	µg/L							No reasonable potential
55	2,4,6-Trichlorophenol	µg/L							No reasonable potential
56	Acenaphthene	µg/L							No reasonable potential
57	Acenaphthylene	µg/L							No reasonable potential
58	Anthracene	µg/L							No reasonable potential
59	Benzidine	µg/L							No reasonable potential
60	Benzo(a)Anthracene	µg/L	1.55		3.11		0.049	0.098	**Limit based on TMDL Harbor Toxics**
61	Benzo(a)Pyrene	µg/L	1.55		3.11		0.049	0.098	**Limit based on TMDL Harbor Toxics**
62	Benzo(b)Fluoranthene	µg/L							No reasonable potential
63	Benzo(ghi)Perylene	µg/L							No reasonable potential
64	Benzo(k)Fluoranthene	µg/L							No reasonable potential
65	Bis(2-Chloroethoxy)Methane	µg/L							No reasonable potential
66	Bis(2-Chloroethyl)Ether	µg/L							No reasonable potential
67	Bis(2-Chloroisopropyl)Ether	µg/L							No reasonable potential
68	Bis(2-Ethylhexyl)Phthalate	µg/L							No reasonable potential
69	4-Bromophenyl Phenyl Ether	µg/L							No reasonable potential
70	Butylbenzyl Phthalate	µg/L							No reasonable potential
71	2-Chloronaphthalene	µg/L							No reasonable potential
72	4-Chlorophenyl Phenyl Ether	µg/L							No reasonable potential
73	Chrysene	µg/L	1.55		3.11		0.049	0.098	**Limit based on TMDL Harbor Toxics**
74	Dibenzo(a,h)Anthracene	µg/L							No reasonable potential
75	1,2-Dichlorobenzene	µg/L							No reasonable potential
76	1,3-Dichlorobenzene	µg/L							No reasonable potential
77	1,4-Dichlorobenzene	µg/L							No reasonable potential
78	3,3 Dichlorobenzidine	µg/L							No reasonable potential
79	Diethyl Phthalate	µg/L							No reasonable potential
80	Dimethyl Phthalate	µg/L							No reasonable potential
81	Di-n-Butyl Phthalate	µg/L							No reasonable potential
82	2,4-Dinitrotoluene	µg/L							No reasonable potential
83	2,6-Dinitrotoluene	µg/L							No reasonable potential
84	Di-n-Octyl Phthalate	µg/L							No reasonable potential
85	1,2-Diphenylhydrazine	µg/L							No reasonable potential
86	Fluoranthene	µg/L							No reasonable potential
87	Fluorene	µg/L							No reasonable potential

CTR#	Parameters	Units	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS: Lowest AMEL	LIMITS: Lowest MDEL	Recommendation
88	Hexachlorobenzene	µg/L							No reasonable potential
89	Hexachlorobutadiene	µg/L							No reasonable potential
90	Hexachlorocyclopentadiene	µg/L							No reasonable potential
91	Hexachloroethane	µg/L							No reasonable potential
92	Indeno(1,2,3-cd)Pyrene	µg/L							No reasonable potential
93	Isophorone	µg/L							No reasonable potential
94	Naphthalene	µg/L							No reasonable potential
95	Nitrobenzene	µg/L							No reasonable potential
96	N-Nitrosodimethylamine	µg/L							No reasonable potential
97	N-Nitrosodi-n-Propylamine	µg/L							No reasonable potential
98	N-Nitrosodiphenylamine	µg/L							No reasonable potential
99	Phenanthrene	µg/L							No reasonable potential
100	Pyrene	µg/L							No reasonable potential
101	1,2,4-Trichlorobenzene	µg/L							No reasonable potential
102	Aldrin	µg/L							No reasonable potential
103	alpha-BHC	µg/L							No reasonable potential
104	beta-BHC	µg/L							No reasonable potential
105	gamma-BHC	µg/L							No reasonable potential
106	delta-BHC	µg/L							No reasonable potential
107	Chlordane	µg/L							No reasonable potential
108	4,4'-DDT	µg/L	1.55	0.00	3.11	0.001643	0.00059	0.0012	**Limit based on TMDL Harbor Toxics**
109	4,4'-DDE (linked to DDT)	µg/L							No reasonable potential
110	4,4'-DDD	µg/L							No reasonable potential
111	Dieldrin	µg/L							No reasonable potential
112	alpha-Endosulfan	µg/L	1.55	0.01	3.11	0.014291	0.007	0.014	**Limit based on Reasonable Potential**
113	beta-Endolsulfan	µg/L							No reasonable potential
114	Endosulfan Sulfate	µg/L							No reasonable potential
115	Endrin	µg/L							No reasonable potential
116	Endrin Aldehyde	µg/L							No reasonable potential
117	Heptachlor	µg/L							No reasonable potential
118	Heptachlor Epoxide	µg/L							No reasonable potential
119-125	PCBs sum (2)	µg/L	1.55	0.02	3.11	0.04928	0.00017	0.00034	**Limit based on TMDL Harbor Toxics**
126	Toxaphene	ug/L							No reasonable potential

Notes:
Ud = Undetermined
Uc = Undetermined due to lack of CTR Water Quality Criteria
C = Water Quality Criteria
B = Background receiving water data
ND = Not Detected
MEC = Maximum Effluent Concentration
MDL = Method Detection Limit
RPA = Reasonable Potential Analysis

ATTACHMENT I – REASONABLE POTENTIAL ANALYSIS FOR AMMONIA

	Receiving Water pH	Receiving Water Temp. (Deg. C)
50 percentile	7.98	17.22
90 percentile	8.14	19.76

Calculations for Total Ammonia Water Quality Objectives Based on Un-ionized Ammonia Objectives

	Un-ionized-NH3 Objective [NH3]:	P (atm)	pH	Temp. (K)	Salinity (ppt)	Molal Iconic Strength (i)	pK_a^s	Total Ammonia Objectives (mg/L NH3)
One-hour Average	0.233	1	8.14	292.91	**29.80**	0.61	9.32	**5.344**
4-day Average	0.035	1	7.98	290.37	**32.00**	0.66	9.32	**1.393**

Molal iconic strength (i) = $19.9273\ S\ (1000\text{-}1.005109\ S)^{-1}$

pKa = $0.116 * i + 9.245$

Total Ammonia = $[NH_4^+]+[NH_3] = [NH_3] + [NH_3]*10\ ^\wedge\ (pK_a^s + 0.0324\ (298\text{-}T) + 0.0415\ P/T - pH)$

Calculations for Final Effluent Monthly Average (AMEL) and Daily Maximum (MDEL) Limitations for Ammonia Nitrogen

	Ammonia Water Quality Objective	ECA = WQO (no dilution allowed)	CV	ECA Multiplier	LTA	Multiplier n = 4	Conversion Factor (mg/L NH3) to (mg/L NH3-N)	MDEL (mg/L NH3-N)	AMEL (mg/L NH3-N)
One hour average	5.34	5.34	0.665	0.294	1.571	3.402	0.824	**1.937**	
4-day Average	1.39	1.39	0.665	0.496	0.691	1.616	0.824		**0.920**

MDEL MDEL=0.691 (most limiting LTA) x 3.402 x 0.824 = 1.937

AMEL AMEL=0.691 (most limiting LTA) x 1.616 x 0.824 = 0.920

Input data:	Receiving water pH, temperature, and salinity ("RW Data" tab)
	CV (Coefficient of Variation) and ECA, MDEL and AMEL multipliers ("EFF Data" tab)