CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

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

ORDER R4-2016~~5~~-XXXX
NPDES NO. CA0000370

WASTE DISCHARGE REQUIREMENTS FOR THE LOS ANGELES DEPARTMENT OF WATER AND POWER SCATTERGOOD GENERATING STATION

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

Table 1. Discharger Information

Discharger	Los Angeles Department of Water and Power
Name of Facility	Scattergood Generating Station
Facility Address	1270 Vista Del Mar
	Playa Del Rey, California 90293
	Los Angeles County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Once-through cooling water, industrial process waters, and storm water	33.9167°	-118.4339°	Pacific Ocean

Table 3. Administrative Information

This Order was adopted on:	**February 11,~~November 5,~~ 2016~~5~~**
This Order shall become effective on:	**April~~January~~ 1, 2016**
This Order shall expire on:	**March~~December~~ 31, 202~~10~~**
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	**180 days prior to the Order expiration date**
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Los Angeles Region have classified this discharge as follows:	**Major**

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

Samuel Unger, P.E., Executive Officer

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I. FACILITY INFORMATION

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

II. FINDINGS

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

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

B. **Background and Rationale for Requirements.** The 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 through H are also incorporated into this Order.

C. **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.

D. **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 00-083 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger is authorized to discharge from the identified facility and outfalls into waters of the United States and shall comply with the requirements in this Order. This action in no way prevents the Los Angeles Water Board from taking enforcement action for past violations of the previous Order.

III. DISCHARGE PROHIBITIONS

A. Wastes discharged shall be limited to a maximum of 226 million gallons per day (MGD) of once-through cooling water, low volume wastewater, cooling tower blowdown, and storm water runoff as described in the findings and fact sheet (Attachment F). The discharge of wastes from accidental spills or other sources is prohibited.

B. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to a storm drain system, the Pacific Ocean, or other waters of the State, are prohibited.

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

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

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

F. Discharge of oil or any residuary product of petroleum to waters of the State, except in accordance with waste discharge requirements or other provisions of Division 7 of the CWC, is prohibited.

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

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

I. There shall be no discharge of polychlorinated biphenyl (PCB) compounds such as those commonly used for transformer fluid.

J. The discharge of any in-plant waste streams from the Facility, including but not limited to the discharge of low volume wastes, is prohibited unless coincident with circulating water pump flows related to power generation or critical system maintenance. This provision is not effective when Units 1 & 2 are out of operation, in which case Units 4, 5, 6, and 7 from Unit 3 repowering may discharge low volume wastes subject to all applicable water quality objectives from the Ocean Plan Table 1 with no allowance for dilution. This prohibition otherwise is effective until the Facility achieves final compliance with the OTC Policy, prior to which the terms and provisions of this Order shall be reconsidered to account for the change of operation at the Facility.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations – Final Combined Effluent

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

Table 4. Effluent Limitations at Discharge Point 001 (Monitoring Location EFF-001)

Parameter	Units	Effluent Limitations				
		Average Monthly (30-day Average)	Average Conc.	Maximum Daily	Instantaneous Minimum[1]	Instantaneous Maximum[1]
pH	pH units	--	--	--	6.0	9.0
Chronic Toxicity[2]	Pass or Fail, % Effect, TST	--	--	Pass or % Effect<50	--	--
DDT[8]	µg/L	0.00017	--	--	--	--
	lb/day[3]	0.00032	--	--	--	--

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Parameter	Units	Effluent Limitations				
		Average Monthly (30-day Average)	Average Conc.	Maximum Daily	Instantaneous Minimum[1]	Instantaneous Maximum[1]
Bis(2-Ethylhexyl) Phthalate	µg/L	37	--	--	--	--
	lb/day[3]	70	--	--	--	--
Total Residual Chlorine[4,5]	mg/L	--	--	--	--	0.436[6]
Free Available Chlorine[4]	mg/L	--	0.2[7]	--	--	0.5
Radioactivity	pCi/L	[9]				

1. The instantaneous maximum/minimum shall apply to grab sample.
2. "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL). Refer to section V, Whole Effluent Toxicity Testing Requirements in the Monitoring and Reporting Program (Attachment E).
3. These mass-based effluent limitations are calculated using the following formula:

   Mass-based effluent limitation (lbs/day) = C * Q * 0.00834
   Where:
   C = Concentration-based effluent limitation (µg/L)
   Q = Maximum discharge flow rate (MGD).
   (226 MGD ~~on and after January 1, 2016~~)
4. Discharge is limited to 2 hrs/day/unit. Simultaneous discharge of chlorine from multiple units is prohibited.
5. If other oxidants are used, this shall be the total of all oxidants reported as residual chlorine.
6. This limit is applicable to the sampling during periods of chlorination. The condenser halves (two in a single unit) are chlorinated for up to 40 minutes per chlorination cycle, and there is a maximum of three chlorination cycles per 24-hour period for each unit. For chlorine discharges of up to 40 minutes during a chlorination cycle, the instantaneous maximum limit is 0.436 mg/l. For chlorine discharges exceeding 40 minutes during a chlorination cycle, the maximum total residual chlorine limitation shall be the BAT limitation of 0.2 mg/L
7. Applied as an average of analyses over a single period of chlorine release which must not exceed two hours.
8. This limitation is based on wasteload allocation for DDT specified in the *Santa Monica Bay TMDL for DDTs and PCBs issued on March 26, 2012.*
9. Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, section 30253, California Code of Regulations.

b. **Temperature.** The temperature of wastes discharged shall not exceed 100°F during normal operation of the facility. During heat treatment, the temperature of wastes discharged shall not exceed 135°F except during adjustment of the recirculation gate at which time the temperature of wastes discharged shall not exceed 140°F. Temperature fluctuations during gate adjustment above 135°F shall not last for more than 30 minutes.

c. **PCBs.** There shall be no discharge of PCBs such as those commonly used for transformer fluid.

B. Effluent Limitations – In-plant Wastes

1. Final Effluent Limitations – Low Volume Wastes (Monitoring Location INT-001A)

a. The Discharger shall maintain compliance with the following effluent limitations for low volume wastes, with compliance measured at Monitoring Location INT-001A as

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described in the Monitoring and Reporting Program, Attachment E:

Table 5. Effluent Limitations – Low Volume Wastes (Monitoring Location INT-001A)

Parameter	Units	Effluent Limitations[2]			
		Average Monthly (30-day Average)	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	pH Units	--	--	6.0	9.0
Total Suspended Solids (TSS)	mg/L	30.0	100.0	--	--
	lbs/day[1]	111~~62~~	369~~210~~	--	--
Oil and Grease	mg/L	15.0	20.0	--	--
	lbs/day[1]	55~~31~~	74~~41~~	--	--

1. The mass-based limitations are based on a maximum low volume waste flow ~~(excluding storm water runoff below elevation 34 ft.)~~ and are calculated as follows:

   Mass-based limitation (lb/day) = C x Q_m x 8.34
   Where:
   C = Concentration-based limitations (mg/L)
   Q_m= The maximum flow of low volume wastes ~~excluding storm water runoff below elevation 34 ft.~~ (see Table F-2) as reported in the updated flow diagrams ~~(March 12, 2015)~~. (0.44~~2~~~~47~~ MGD ~~on and after January 1, 2016~~).

2. When this waste stream is discharging absent the once-through cooling water, the effluent shall comply with all applicable water quality objectives in Table 1 of the Ocean Plan with no dilution.

b. PCBs. There shall be no discharge of PCBs such as those commonly used for transformer fluid.

2. Final Effluent Limitations – Demineralization System Waste~~Reverse Osmosis Brine and Repowering Low Volume Wastes~~ (Monitoring Location INT-001B)

a. The Discharger shall maintain compliance with the following effluent limitations for the demineralization system waste~~reverse osmosis brine and a portion of repowering low volume wastes~~, with compliance measured at Monitoring Location INT-001B as described in the Monitoring and Reporting Program, Attachment E:

Table 6. Effluent Limitations – ~~Reverse Osmosis~~Demineralization System Waste~~Brine and Repowering Low Volume Wastes~~ (Monitoring Location INT-001B)

Parameter	Units	Effluent Limitations[2, ~~3~~]			
		Average Monthly (30-day Average)	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	pH Units	--	--	6.0	9.0
TSS	mg/L	30.0	100.0	--	--
	lbs/day[1]	44~~93~~	146~~308~~	--	--
Oil and Grease	mg/L	15.0	20.0	--	--
	lbs/day[1]	22~~46~~	29~~62~~	--	--

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1. The mass-based limitations are based on a maximum waste flow of ~~reverse osmosis~~demineralization system waste~~brine plus other low volume wastes~~ and are calculated as follows:

   Mass-based limitation (lb/day) = C x Q_m x 8.34
   Where:
   C = Concentration-based limitations (mg/L)
   Q_m= The maximum waste flow of ~~reverse osmosis~~demineralization system waste ~~brine plus a portion of repowering low volume wastes~~ (see Table F-2) as reported in the updated flow diagrams ~~(March 12, 2015)~~.
   (0.175~~370~~ MGD ~~on and after January 1, 2016~~).

~~2. From January 1, 2016 through June 30, 2016, the flow-weighed composite sample may be used for complying with these limitations. The flow-weighed composite sample shall be based on the measured flow rates in the reverse osmosis brine waste stream and the repowering low volume waste stream, respectively, at the sampling time.~~

~~3.~~2. When this waste stream is discharging absent the once-through cooling water, the effluent shall comply with all applicable water quality objectives in Table 1 of the Ocean Plan with no dilution.

b. PCBs. There shall be no discharge of PCBs such as those commonly used for transformer fluid.

3. Final Effluent Limitations –Cooling Tower Blowdown (Monitoring Location INT-001C)

a. The Discharger shall maintain compliance with the following effluent limitations for cooling tower blowdown, with compliance measured at Monitoring Location INT-001C as described in the Monitoring and Reporting Program, Attachment E:

Table 7. Effluent Limitations – Cooling Tower Blowdown (Monitoring Location INT-001C)

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Conc.	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	pH Units	--	--	--	6.0	9.0
Free Available Chlorine[1]	mg/L	--	0.2[2]	--	--	0.5
Priority Pollutants contained in chemicals added for cooling tower maintenance, except:[4]	µg/L	[5]				
Chromium, Total	mg/L	0.2	--	0.2	--	--
	lbs/day[3]	0.025	--	0.025	--	--
Zinc, Total	mg/L	1.0	--	1.0	--	--
	lbs/day[3]	0.13	--	0.13	--	--

1. Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Regional Administrator or State, if the State has NPDES permit issuing authority, that the units in a particular location cannot operate at or below this level of chlorination.
2. Applied as an average of analyses over a single period of chlorine release which must not exceed two hours per day per unit.

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3. The mass-based limitations are based on a maximum waste flow of the cooling tower blowdown and are calculated as follows:

Mass-based limitation (lb/day) = C x Q_m x 8.34

Where:

C = Concentration-based limitations (mg/L)

Q_m = The maximum flow for the cooling tower blowdown as reported in the updated flow diagrams ~~(March 12, 2015)~~.
(0.015 MGD ~~on and after January 1, 2016~~).

4. The 126 priority pollutants (Appendix A to 40 C.F.R. part 423) contained in chemicals added for cooling tower maintenance, except for total chromium and total zinc.

5. No detectable amount of the 126 priority pollutants contained in chemicals added for cooling tower maintenance.

b. PCBs. There shall be no discharge of PCBs such as those commonly used for transformer fluid.

4. Final Effluent Limitations – In-plant Waste Streams (Total)

a. The Discharger shall maintain compliance with the following effluent limitations for all in-plant waste streams taken together, with compliance determined by the sum of mass discharges measured at Monitoring Locations INT-001A, INT-001B and INT-001C, as described in the Monitoring and Reporting Program, Attachment E:

Table 8. Effluent Limitations – Sum of Mass Emission from all In-plant Waste Streams at Monitoring Locations INT-001A, INT-001B and INT-001C

Parameter	Units	Effluent Limitations	
		Average Monthly (30-day Average)	Maximum Daily
Bis(2-Ethylhexyl) Phthalate	lbs/day[1]	0.20	--

1. The mass-based limitation is based on the maximum combined in-plant waste flows of 0.632 MGD (on and after January 1, 2016) and are calculated as follows:

Mass-based limitation (lbs/day) = C x Q_m x 0.00834

Where:

C = Concentration-based limitations (µg/L) calculated in the combined discharge (cooling water and in-plant wastes). (37 µg/L for bis (2-ethylhexyl) phthalate))

Q_m = The sum of the maximum individual in-plant waste flows at INT-001A, INT-001B and INT-001C, as indicated in the updated flow diagrams ~~(March 12, 2015)~~

0.442~~247~~(INT-001A) + 0.175~~370~~(INT-001B) + 0.015(INT-001C) = **0.632** MGD ~~(on and after January 1, 2016)~~

Mass Effluent Limitation calculations:
37 µg/L x 0.632 MGD x 0.00834 = 0.195 lbs/day ~~(on and after January 1, 2016)~~

When possible, samples for bis(2-ethylhexyl) phthalate at INT-001A, INT-001B and INT-001C shall be collected on the same day. The sum of calculated mass emissions measured at INT-00A, INT-00B and INT-00C within the same day will be used for determining compliance with the mass limitation of Bis(2-ethylhexyl) Phthalate for all in-plant waste streams.

C. Land Discharge Specifications – Not Applicable

D. Recycling Specifications – Not Applicable

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V. RECEIVING WATER LIMITATIONS

Receiving water limitations are based on water quality objectives contained in the California Ocean Plan, as most recently amended effective August 19, 2013 ("Ocean Plan"), and are a required part of this Order. Unless specifically excepted by this Order, the discharge, by itself or jointly with any other discharge(s), shall not cause violations of the following water quality objectives. Compliance with these objectives shall be determined by samples collected at stations representative of the area within the waste field where initial dilution is completed (i.e., outside the zone of initial dilution).

A. Bacterial Characteristics

1. Water-Contact Standards

Both the State Water Board and the California Department of Public Health (CDPH) have established standards to protect water contact recreation in coastal waters from bacterial contamination. Subsection a of this section contains bacterial objectives adopted by the State Water Board for ocean waters used for water contact recreation. Subsection b describes the bacteriological standards adopted by CDPH for coastal waters adjacent to public beaches and public water contact sports areas in ocean waters.

a. State/Regional Water Board Water Contact Standards

Within a zone bounded by the shoreline, and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports as determined by the Los Angeles Water Board (i.e., waters designated as REC-1), but including all kelp beds, the discharge shall not cause the following bacterial objectives throughout the water column to be exceeded:

<u>30-day Geometric Mean Limits</u> – the following standards are based on the geometric mean of the five most recent samples from each site:

i. Total coliform density shall not exceed 1,000 per 100 ml;

i. Fecal coliform density shall not exceed 200 per 100 ml; and

ii. *Enterococcus* density shall not exceed 35 per 100 ml.

<u>Single Sample Maximum (SSM)</u>

i. Total coliform density shall not exceed 10,000 per 100 ml

ii. Fecal coliform density shall not exceed 400 per 100 ml;

iii. Enterococcus density shall not exceed 104 per 100 ml; and

iv. Total coliform density shall not exceed 1,000 per 100 m l when the fecal coliform/total coliform ratio exceeds 0.1.

The Initial Dilution Zone[1] for any wastewater outfall shall be excluded from designation as kelp beds for purposes of bacterial standards. Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards.

[1] Initial Dilution Zone is a limited volume of receiving water that is allocated for rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge when the initial dilution occurs where water quality criteria can be exceeded as long as acutely toxic conditions are prevented.

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b. CDPH Standards

CDPH has established minimum protective bacteriological standards for coast water adjacent to public beaches and for public water-contact sports areas in ocean waters. These standards are found in the California Code of Regulations, title 17, section 7958, and they are identical to the objectives contained in subsection a. above. When a public beach or public water-contact sports area fails to meet these standards, CDPH or the local public health officer may post with warning signs or otherwise restrict use of the public beach or public water-contact sports area until the standards are met. The CDPH regulations impose more frequent monitoring and more stringent posting and closure requirements on certain high-use public beaches that are located adjacent to a storm drain that flows in the summer.

For beaches not covered under AB 411 regulations, CDPH imposes the same standards as contained in Title 17 and requires weekly sampling but allows the county health officer more discretion in making posting and closure decisions.

2. **Shellfish Harvesting Standards**

At all areas where shellfish may be harvested for human consumption, as determined by the Los Angeles Water Board, the waste discharged shall not cause the following bacterial standards to be exceeded throughout the water column:

a. The median total coliform density shall not exceed 70 per 100 ml, and not more than 10 percent of the samples shall exceed 230 per 100 ml.

B. Physical Characteristics

1. Floating particulates and grease and oil shall not be visible as a result of wastes discharged.
2. The discharge of waste shall not alter the color of the receiving waters; create a visual contrast with the natural appearance of the water; nor cause aesthetically undesirable discoloration of the ocean surface.
3. Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.
4. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded

C. Chemical Characteristics

1. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials; excluding effects of naturally induced upwelling.
2. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.
3. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.
4. The concentration of substances set forth in Chapter II, Table 1 of the Ocean Plan, shall not be increased in marine sediments to levels that would degrade indigenous biota.
5. The concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine life.

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6. Nutrient materials shall not cause objectionable aquatic growths or degrade indigenous biota.

7. Numerical water quality objectives established in Chapter II, Table 1 of the California Ocean Plan shall not be exceeded outside of the zone of initial dilution as a result of discharges from the Facility.

D. Biological Characteristics

1. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.

2. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.

3. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

E. Radioactivity

1. Discharge of radioactive waste shall not degrade marine life.

VI. PROVISIONS

A. Standard Provisions

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

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

   a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of sections 122.44, 122.62, 122.63, 122.64, 125.62 and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this Order; endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly-obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation, and issuance of termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

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

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

   d. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 318, 405, and 423 of the federal CWA and amendments thereto.

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

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

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

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

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

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

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

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

j. The Discharger shall notify the 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. Notification shall include submittal of a new report of waste discharge with the appropriate filing fee.

k. The Discharger shall 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.

l. All existing manufacturing, commercial, mining, and silvicultural dischargers 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.

m. 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 and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Los Angeles Water Board.

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

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per gallon per day or $25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

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

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

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

r. 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.

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

t. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, maximum daily effluent limitation, average monthly effluent limitation, instantaneous maximum or instantaneous minimum effluent limitation, six-month median limitation, or receiving water limitation of this Order, the Discharger shall notify the Los Angeles Water Board by telephone (213) 576-6600 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the 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. Other noncompliance requires written notification as above at the time of the normal monitoring report.

B. Monitoring and Reporting Program (MRP) Requirements

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

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C. Special Provisions

1. Reopener Provisions

a. This Order may be reopened for modification to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a California Ocean Plan (Ocean Plan) Table 1 water quality objective.

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 will revise and modify this Order in accordance with such more stringent standards.

c. This Order may be reopened and modified, in accordance with the provisions set forth in 40 C.F.R parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new ML's.

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

e. This Order will be reopened upon the approval of the new dilution credit by the State Board and/or the Los Angeles Water Board. The Discharger is required to conduct a mixing zone and dilution credit study to update the dilution credit for the discharge using the flow applicable after the completion of the Unit 3 repowering at the reduced discharge flow as indicated in section VI.C.2.b.

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 modified, or revoked and reissued, based on the results of Magnuson-Stevens Conservation and Management Act and/or Endangered Species Act section 7 consultations with the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

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

b. Mixing Zone and Dilution Credit Study Work Plan. The Discharger shall develop and submit to the Los Angeles Water Board for review a work plan detailing how the Discharger will conduct a Mixing Zone and Dilution Credit Study using the flow applicable after the completion of the Unit 3 repowering at the reduced discharge flow, within **90 days** after the effective date of this Order. The study shall identify the boundary of the zone of initial dilution (ZID) based on modelling results, and include monitoring upstream of the discharge point, directly above the discharge location, at

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the boundary of the ZID, and outside the ZID for the list of constituents included in Table 1 of the Ocean Plan, to confirm the assumptions made by the model. Upon the approval of the new dilution credit by the State Board and/or the Los Angeles Water Board, the permit will be reopened to implement the new dilution credit for the determination of effluent limitations.

3. Best Management Practices and Pollution Prevention

a. Storm Water Pollution Prevention, Best Management Practices, and Spill Contingency Plans.

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

i. A Storm Water Pollution Prevention Plan (SWPPP) that describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State. The SWPPP shall be developed in accordance with the requirements in Attachment G.

ii. A Best Management Practices Plan (BMPP), that include site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the State. The BMPs shall be consistent with the general guidance contained in the *USEPA Guidance Manual for Developing Best Management Practices* (BMPs) (EPA 833-B-93-004). In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material discharge to surface waters.

iii. A Spill Control Plan (SCP), that describes the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events.

Each plan shall cover all areas of the Facility and shall include an updated drainage map for the Facility. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge point; describe the activities in each area and the potential for contamination of storm water runoff and the discharge of hazardous waste/material; and address the feasibility of containment and/or treatment of storm water.

The 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 and revised, if necessary, at the same time. Updated information shall be submitted to the Los Angeles Water Board within 30 days of revisions.

4. Construction, Operation and Maintenance Specifications

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

5. Other Special Provisions

a. Discharges of Storm Water

Except for storm water authorized under this Order to be discharged through Discharge Points 001, the Discharger shall maintain coverage under General Permit No. CAS000001 and, except as otherwise authorized by this Order, shall meet the

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requirements of that general permit for the control of storm water discharges from the Facility.

If the Discharger terminates its coverage under the General Industrial Storm Water Permit, the Discharger shall maintain and implement the SWPPP.

b. Once-Through Cooling Water Compliance Schedule

i. **Compliance Date and Alternatives.** The Discharger submitted an implementation plan for compliance with the State Water Board's Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (OTC Policy) on April 1, 2011, which was later amended on December 10, 2012. The facility consists of three fossil-fueled steam electric generating units (1, 2, and 3). Units 1 and 2 are rated at 179 MW each while Unit 3 is rated at 460 MW. Per the Discharger's amended implementation plan and in accordance with the amended OTC Policy, the Discharger plans to comply with the OTC Policy on a unit by unit basis using Track 1 compliance, starting with Unit 3 and finishing with Units 1 and 2 later in accordance with the following schedule. The Regional Water Board is responsible for ensuring that compliance with the OTC policy is timely, appropriate, and effective. Progress reports will enable the Regional Water Board to monitor the progress towards achieving compliance.

Table 9. Schedule of Compliance with OTC Policy

Task	Compliance Date
1. Submit the results of studies and a proposal to minimize impingement and entrainment to the State Water Board. (see item ii.(c) below)	December 31, 2015
2. Achieve full compliance with Unit 3, repowered without Once Through Cooling (OTC).	December 31, 2015
3. Submit first Progress Report on compliance status Units 1 and 2	December 1, 2019
4. Submit second Progress Report on compliance status Units 1 and 2	December 1, 2021
5. Submit third Progress Report on compliance status Units 1 and 2	December 1, 2023
6. Achieve full compliance with Units 1 and 2	December 31, 2024

Based on the need for continued operation to maintain the reliability of the electric system, the Los Angeles Water Board or State Water Board may reopen this Order to suspend the compliance date under the circumstances set forth in OTC Policy section 2.B(2).

ii. **Immediate and Interim Requirements.** The Discharger shall implement the following immediate and interim actions:

(a) As of October 1, 2011, any unit that is not directly engaged in power-generating activities or critical system maintenance (as defined in Attachment A of this Order) shall cease intake flows unless it has been demonstrated to the State Water Board that a reduced minimum flow is necessary for operations.

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(b) Commencing on October 1, 2015, the Discharger shall implement measures to mitigate interim impingement and entrainment impacts until full compliance is achieved by December 31, 2024. If proposing to mitigate by funding to the California Coastal Conservancy, working with the California Ocean Protection Council, for mitigation projects directed toward increases in marine life associated with the State's Marine Protected Areas within your local area, the funding shall be based on the amount determined by the State Water Board Chief Deputy Director.

(c) Since achieving compliance with Units 1 and 2 is scheduled after December 31, 2022, the Discharger shall submit the results of a study evaluating new technologies or improving existing technologies to reduce impingement and entrainment, along with a proposal to minimize entrainment and impingement to the Chief Deputy Director of the Division of Water Quality of the State Water Board no later than December 31, 2015, and upon approval of the proposal by the Chief Deputy Director, the Discharger shall complete implementation of the proposal no later than December 31, 2020.

6. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

A. Compliance with Effluent Limitations expressed as Single Constituents

If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement I.G. of the MRP), then the Discharger is out of compliance.

B. Compliance with Effluent Limitations Expressed as Sum of Several Constituents

Dischargers are out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCB's) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as "Not Detected" (ND) or "Detected, but Not Quantified" (DNQ).

C. Multiple Sample Data Reduction

The concentration of the pollutant in the effluent may be estimated from the result of a single sample analysis or by a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses when all sample results are quantifiable (i.e., greater than or equal to the reported Minimum* Level). When one or more sample results are reported as ND or DNQ, the central tendency concentration of the pollutant shall be the median (middle) value of the multiple samples. If, in an even number of samples, one or both of the middle values is ND or DNQ, the median will be the lower of the two middle values.

D. Mass-Based Effluent Limitations

Compliance with mass effluent will be estimated based on flow and concentration. When the concentration for the parameter in a sample is reported as Not Detected (ND) or Detected, but Not Quantified (DNQ), the corresponding mass emission rate determined using that sample concentration shall also be reported as ND or DNQ.

E. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by subsection C above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given

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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 non-compliance in a 31-day month). However, an alleged violation of the AMEL will be considered one violation for the purpose of assessing mandatory minimum penalties. The average of daily discharges over a calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample (daily discharge) is taken over a calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that month. If no sample (daily discharge) is taken over a calendar month, no compliance determination can be made for that month with respect to effluent violation determination, but compliance determination can be made for that month with respect to reporting violation determination.

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

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

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

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

   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.

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

F. Maximum Daily Eflfuent Limitation (MDEL)

If a daily discharge on a calendar day exceeds the MDEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that day for that parameter. If no sample (daily discharge) is taken over a calendar day, no compliance determination can be made for that day with respect to an effluent violation determination, but compliance determination can be made for that day with respect to reporting violation determination.

G. Average Concentration Effluent Limitation for Free Available Chlorine

If the average concentration of discharge during a chlorine release period exceeds the average concentration effluent limitation for free available chlorine, an alleged violation will be flagged and the Discharger will be considered out of compliance for that chlorine release period for that parameter. Discharge of chlorine is limited to 2 hours/day/unit. The average concentration shall be calculated as the sum of all discharges of free available chlorine measured during a chlorine release period divided by the number of measurements taken for that parameter during that period. If no sample is taken over a chlorine release period, no

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compliance determination can be made for that chlorine release period with respect to an effluent violation determination, but compliance determination can be made for that chlorine release period with respect to reporting violation determination.

H. Instantaneous Minimum Effluent Limitation

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

I. Instantaneous Maximum Effluent Limitation

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

J. Six-Month Median Effluent Limitation

If the median of daily discharges over any 180-day period exceeds the six-month median effluent limitation for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that 180-day period for that parameter. The next assessment of compliance will occur after the next sample is taken. If only a single sample is taken during a given 180-day period and the analytical result for that sample exceeds the six-month median, the discharger will be considered out of compliance for the 180-day period. For any 180-period during which no sample is taken, no compliance determination can be made for the six-month median limitation.

The six-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred. If only one sample is collected during the time period associated with the 6-month median water quality objective, the single measurement shall be used to determine compliance with the effluent limitation for the entire time period.

K. Median Monthly Effluent Limitation (MMEL)

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

L. Chronic Toxicity

The discharge is subject to determination of “Pass” or “Fail” and “Percent Effect” from a single-effluent concentration chronic toxicity test at the discharge IWC using the Test of

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Significant Toxicity (TST) statistical approach described in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1. The null hypothesis (Ho) for the TST statistical approach is: Mean discharge IWC response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as "Pass". A test result that does not reject this null hypothesis is reported as "Fail". The relative "Percent Effect" at the discharge IWC is defined and reported as ((Mean control response Mean discharge IWC response) Mean control response)) × 100.

The Maximum Daily Effluent Limitation (MDEL) for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed using the TST statistical approach, results in "Fail" and the "Percent Effect" is ≥0.50.

M. Bacterial Standards and Analyses

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

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

where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL or CFU/100 mL) found on each day of sampling. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for *Enterococcus*). The detection method used for each analysis shall be reported with the results of the analysis.

Detection methods used for coliforms (total and fecal) and *Enterococcus* shall be those presented in Table 1A of 40 C.F.R. part 136 (revised July 1, 2009), 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.

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ATTACHMENT A – DEFINITIONS

Areas of Special Biological Significance (ASBS)
Those areas designated by the State Water Resources Control Board (State Water Board) as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All Areas of Special Biological Significance are also classified as a subset of STATE WATER QUALITY PROTECTION AREAS.

Average Concentration Effluent Limitation
The highest allowable average concentration of free available chlorine discharges over a single chlorine release period (which does not exceed two hours), calculated as the sum of all discharges for that parameter measured during a chlorine release period divided by the number of measurements taken during that period.

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

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

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

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

Blowdown
The term blowdown means the minimum discharge of recirculating water for the purpose of discharging materials contained in the water, the further buildup of which would cause concentration in amounts exceeding limits established by best engineering practices.

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

Chemical Metal Cleaning Wastes
The term chemical metal cleaning waste means any wastewater resulting from the cleaning of any metal process equipment with chemical compounds, including, but not limited to, boiler tube cleaning.

Chlordane
Shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

Chlorinated Phenolic Compounds
Chlorinated phenolic compounds mean the sum of 2-chlorophenol, 2,4-dichlorophenol, 4-chloro-3-methylphenol, 2,4,6-trichlorophenol, and pentachlorophenol.

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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.

Composite Sample
Composite Sample, for flow rate measurements, means the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of discharge, whichever is shorter.

Composite sample, for other than flow rate measurement, means:

a No fewer than eight individual sample portions taken at equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual sample portion shall be directly proportional to the discharge flow rate at the time of sampling; or,

b No fewer than eight individual sample portions taken of equal time volume taken over a 24 hour period. The time interval between each individual sample portion shall vary such that the volume of the discharge between each individual sample portion remains constant.

The compositing period shall equal the specified sampling period, or 24 hours, if no period is specified.

For a composite sample, if the duration of the discharge is less than 24 hours but greater than 8 hours, at least eight flow-weighted individual sample portions shall be taken during the duration of the discharge and composited. For a discharge duration of 8 hours or less, eight individual "grab samples" may be substituted and composited.

The composite sample result shall be reported for the calendar day during which composite sampling ends.

Critical System maintenance
Activities that are critical for the maintenance of a plant's physical machinery and absolutely cannot be postponed until the unit is operating to generate electricity.

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.

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.

Degrade (Degradation)
Degradation shall be determined by comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates,

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or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.

Detected, but Not Quantified (DNQ)
Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dichlorobenzenes
Shall mean the sum of 1,2- and 1,3-dichlorobenzene.

Downstream Ocean Waters
Waters downstream with respect to ocean currents.

Dredged Material
Any material excavated or dredged from the navigable waters of the United States, including material otherwise referred to as "spoil."

Enclosed Bays
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 headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes but is not limited to: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.

Endosulfan
The sum of endosulfan-alpha and -beta and endosulfan sulfate.

Estuaries and Coastal Lagoons
are waters at the mouths of streams that serve as mixing zones for fresh and ocean waters during a major portion of the year. Mouths of streams that are temporarily separated from the ocean by sandbars shall be considered as estuaries. Estuarine waters will generally be considered to extend from a bay or the open ocean to the upstream limit of tidal action but may be considered to extend seaward if significant mixing of fresh and salt water occurs in the open coastal waters. The waters described by this definition include but are not limited to the Sacramento-San Joaquin Delta as defined by Section 12220 of the California Water Code, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

Existing Power Plant
Refers to any power plant that is not a new power plant. A new power plant is a "new facility", as defined in 40 C.F.R. § 125.83 (revised as of July 1, 2007), and that is subject to Subpart I, Part 125 of the Code of Federal Regulations (revised as of July 1, 2007) (referred to as "Phase I regulations"). Contrary to a new facility, an existing facility is constructed prior to January 17, 2002.

Grab Sample
Grab Sample means an individual sample collected during a period of time not to exceed 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not occur during hydraulic peaks.

Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

HCH shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

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Initial Dilution
The process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Los Angeles Water Board, whichever results in the lower estimate for initial dilution.

Initial Dilution Zone
Initial Dilution Zone is a limited volume of receiving water resulting from the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge when the initial dilution is complete.

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).

Kelp Beds
For purposes of the bacteriological standards of the Ocean Plan, are significant aggregations of marine algae of the genera Macrocystis and Nereocystis. Kelp beds include the total foliage canopy of Macrocystis and Nereocystis plants throughout the water column.

Low Volume Waste
The term low volume waste sources means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations are otherwise established 40 C.F.R part 423. Low volume wastes sources include, but are not limited to: wastewaters from wet scrubber air pollution control systems, ion exchange water treatment system, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, and recirculating house service water systems. Sanitary and air conditioning wastes are not included.

Mariculture
The culture of plants and animals in marine waters independent of any pollution source.

Material
(a) In common usage: (1) the substance or substances of which a thing is made or composed (2) substantial; (b) For purposes of the Ocean Plan relating to waste disposal, dredging and the disposal of dredged material and fill, MATERIAL means matter of any kind or description which is subject to regulation as waste, or any material dredged from the navigable waters of the United States. See also, DREDGED MATERIAL.

Maximum Daily Effluent Limitation (MDEL)
The highest allowable daily discharge of a pollutant.

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

Metal Cleaning Waste
The term metal cleaning waste means any wastewater resulting from cleaning—with or without chemical cleaning compounds—any metal process equipment including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air preheater cleaning.

Method Detection Limit (MDL)
The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 C.F.R. part 136, Attachment B.

Minimum Level (ML)
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.

Natural Light
Reduction of natural light may be determined by the Regional Water Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Regional Water Board.

Nonchemical Metal Cleaning Wastes
The term nonchemical metal cleaning waste means any wastewater resulting from the cleaning of any metal process equipment without chemical cleaning compounds, including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air preheater cleaning.

Non-Chlorinated Phenolics
Non-chlorinated phenolic compounds shall mean the sum of phenol, 2,4-dimethylphenol, 2-nitrophenol, 4-nitrophenol, 2,4-dinitrophenol, and 2-methyl-4,6-dinitrophenol.

Not Detected (ND)
Those sample results less than the laboratory's MDL.

Ocean Waters
The territorial marine waters of the state as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside the territorial waters of the state could affect the quality of the waters of the state, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters.

Once-Through Cooling Water
The term once-through cooling water means water passed through the main cooling condensers in one or two passes for the purpose of removing waste heat.

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PAHs (polynuclear aromatic hydrocarbons)
The sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

PCBs (polychlorinated biphenyls)
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.

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 Ocean Plan Table 1 pollutants through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Power Generating Activities
Activities directly related to the generation of electrical power, including start-up and shut-down procedures, contractual obligations (hot stand-by), hot bypasses, and critical system maintenance regulated by the Nuclear Regulatory Commission. Activities that are not considered directly related to the generation of electricity include (but are not limited to) dilution for in-plant wastes, maintenance of source and receiving water quality strictly for monitoring purposes, and running pumps strictly to prevent fouling of condensers and other power plant equipment.

Reported Minimum Level
The reported ML (also known as the Reporting Level or RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the ML's included in this Order, including an additional factor if applicable as discussed herein. The ML's included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Los Angeles Regional Water Board either from Appendix II of the Ocean Plan in accordance with section III.C.5.a. of the Ocean Plan or established in accordance with section III.C.5.b. of the Ocean Plan. 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 reported ML.

Shellfish
Organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e., mussels, clams and oysters).

Significant Difference
Defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

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Six-Month Median Effluent Limitation
The highest allowable moving median of all daily discharges for any 180-day period.

State Water Quality Protection Areas (SWQPA's)
Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolutions 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

TCDD Equivalents
The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below.

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
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
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

Toxicity Reduction Evaluation (TRE)
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.)

Waste
As used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

Water Quality-Based Effluent Limit (WQBEL)
A value determined by selecting the most stringent of the effluent limits calculated using all applicable water quality criteria (e.g., aquatic life, human health, and wildlife) for a specific point source to a specific receiving water for a given pollutant.

Water Quality Criteria
Comprised of numeric and narrative criteria. Numeric criteria are scientifically derived ambient concentrations developed by U.S. EPA or States for various pollutants of concern to protect human health and aquatic life. Narrative criteria are statements that describe the desired water quality goal.

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Water Quality Standard
A law or regulation that consists of the beneficial use or uses of a waterbody, the numeric and narrative water quality criteria that are necessary to protect the use or uses of that particular waterbody, and an antidegradation statement.

Whole Effluent Toxicity (WET)
The total toxic effect of an effluent measured directly with a toxicity test.

Zone of Initial Dilution (ZID)
Zone of Initial Dilution (ZID) means, for purposes of designating monitoring stations, the region within which initial dilution of the discharge in the receiving water occurs, and at the boundary of which initial dilution is completed.

Water Recycling
The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

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ATTACHMENT B – MAP

Site Map for Los Angeles Department of Water and Power Scattergood Generating Station

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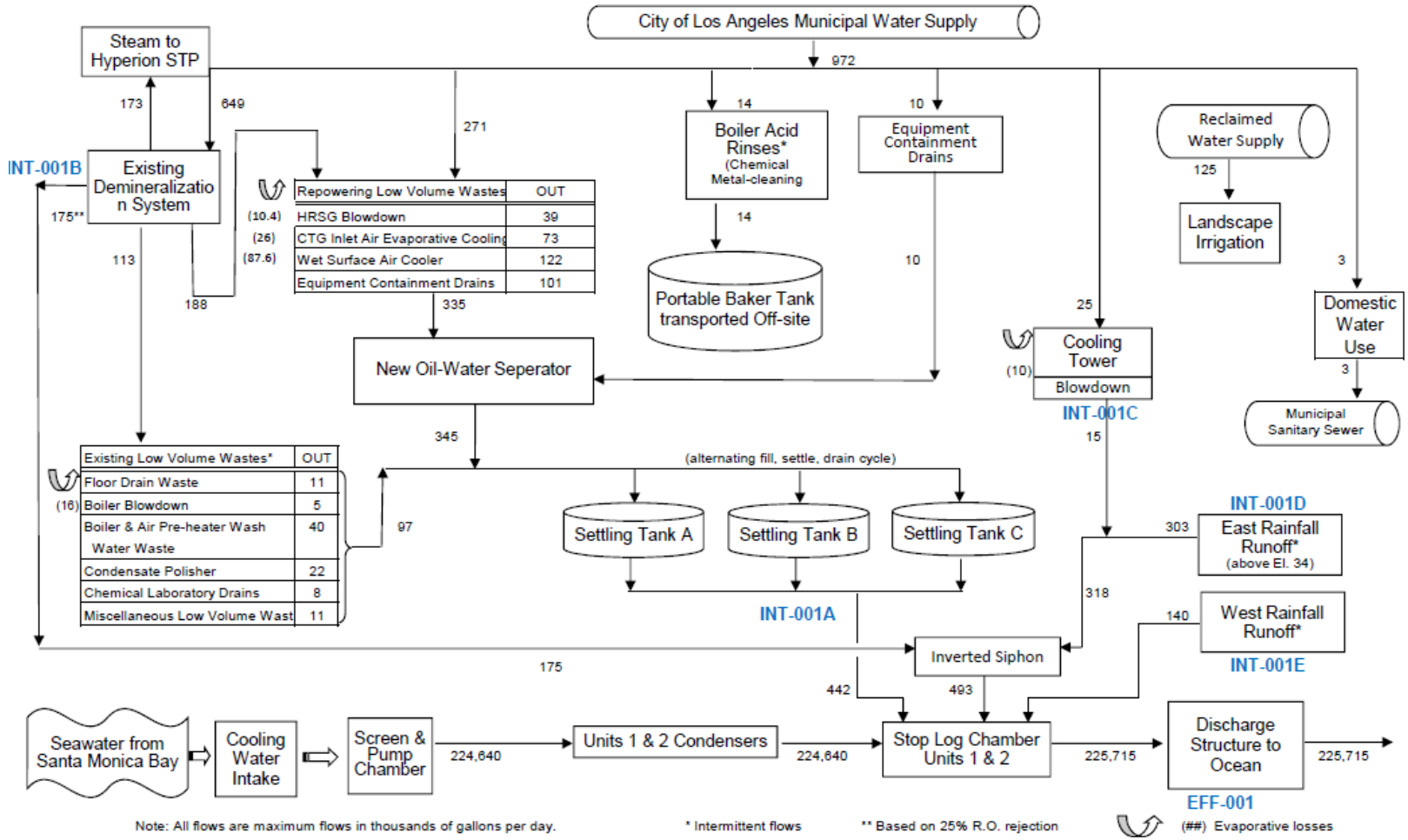
ATTACHMENT C – FLOW SCHEMATIC



SCHEMATIC of WATER FLOW for the SCATTERGOOD GENERATING STATION

Los Angeles Department of Water and Power

11/06/2015

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ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

C. Duty to Mitigate

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

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the 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 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 13383):

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1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(b)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(b)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(b)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(4)(b); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

G. Bypass

1. Definitions
   - **a.** "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
   - **b.** "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)
2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
   - **a.** Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));
   - **b.** There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
   - **c.** The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three

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conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

   a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)

   b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):

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

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

   c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

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

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

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

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B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the 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 C.F.R. §§ 122.41(l)(3), 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)

B. Monitoring results must be conducted according to test procedures approved under 40 C.F.R. section 136 for the analyses of pollutants unless another method is required under 40 C.F.R. subchapters N or O. In the case of pollutants for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants. (40 C.F.R. §§ 122.41(j)(4), 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. section 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

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V. STANDARD PROVISIONS – REPORTING

A. 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 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)

2. All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. § 122.22(a)(1).)

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

   a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 .F.R. § 122.22(b)(2)); and

   c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and

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State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)

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

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 C.F.R. § 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.41(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. section 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)
2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):

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

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

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 C.F.R. § 122.41(l)(1)(ii).)
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R.§ 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

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

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

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

REVISED TENTATIVE

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

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

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):

   a. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));

   b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));

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

   d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels" (40 C.F.R. § 122.42(a)(2)):

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

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

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

   d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP NO. 1886)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) NO. 1886

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

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I. GENERAL MONITORING PROVISIONS

A. Effluent sampling stations shall be established for the points of discharge (Discharge Point 001 [Latitude 33.9167°, Longitude -118.4339º] and In-plant Discharge Points) and shall be located where representative samples of that effluent can be obtained.

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

C. 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.

D. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. sections 136.3, 136.4, and 136.5 (revised May 18, 2012); or, where no methods are specified for a given pollutant, by methods approved by this Los Angeles Water Board or the State Water Resources Control Board (State Water Board).

Laboratory Certification. Laboratories analyzing effluent samples and receiving water samples shall be certified by the State Water Board, Drinking Water Division, Environmental Laboratory Accreditation Program (ELAP), in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.

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

F. Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the State Water Board or approved by the Executive Officer and in accordance with current U.S.EPA guideline procedures or as specified in this MRP".

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

1. An actual numerical value for sample results greater than or equal to the ML; or
2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML; or,
3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

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

Current MLs (Attachment H) are those listed in Appendix II of the California Ocean Plan (Ocean Plan).

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

I. Where possible, the MLs employed for effluent analyses not associated with determining compliance with effluent limitations in this order shall be lower than the lowest applicable water quality objective, for a given parameter. Water quality objectives for parameters may be found in Table 1 of the Ocean Plan. If the ML value is not below the water quality objective, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test, the associated laboratory QA/QC procedures, reporting levels (RLs), and method detection limits (MDLs).

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

1. When the pollutant under consideration is not included in Attachment H;
2. When the Discharger and Los Angeles Water Board agree to include in the permit a test method that is more sensitive than that specified in section 136 (revised May 18, 2012);
3. When the Discharger agrees to use an ML that is lower than that listed in Attachment H;
4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment H, and proposes an appropriate ML for their matrix; or,
5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the U.S. EPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Los Angeles 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.

J. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 C.F.R. section 136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Los Angeles 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.

K. Field analyses with short sample holding time such as pH, total residual chlorine, 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 C.F.R. part 136. All field instruments must be calibrated per

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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 Regional 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 Regional Water Board as part of the corresponding regular monitoring report.

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

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

N. 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.

O. When requested by the Los Angeles Water Board or U.S. EPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study. The Discharger must have a success rate equal to or greater than 80%.

P. 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 by the Executive Officer a program to ensure future compliance with the average monthly limit.

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

1. Types of wastes and quantity of each type;
2. Name and address for each hauler of wastes (or method of transport if other than by hauling); and
3. Location of the final point(s) of disposal for each type of waste.

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

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

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II. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description[1]
Effluent and In-plant Wastes Monitoring Stations		
001	EFF-001	At a location where a representative sample of the combined wastewater can be obtained after treatment but prior to discharging to the Pacific Ocean via Discharge Point 001.
--	INT-001A	At a location where a representative sample of the treated effluent from Settling Tanks A, B and C can be obtained but prior to commingling with other waste streams.
--	INT-001B	At a location where a representative sample of other low volume wastes (demineralization/reverse osmosis system wastes~~brine, CTG inlet air evaporative cooling waste and wet surface air cooler waste~~) can be obtained but prior to discharging to the Inverted Siphon[2] (Please refer to Flow Schematic on C-1).
--	INT-001C	At a location where a representative sample of the effluent from Cooling Tower Blowdown can be obtained but prior to commingling with other waste streams.
~~--~~	~~INT-001D~~	~~At a location where a representative sample of storm water from drainage areas within the Facility can be obtained but prior to commingling with other waste streams~~
--	INT-001D~~E~~	At a location where a representative sample of storm water from EAST drainage areas within the Facility can be obtained but prior to commingling with other waste streams
--	INT-001E~~F~~	At a location where a representative sample of storm water from WEST drainage areas within the Facility can be obtained but prior to commingling with other waste streams
Receiving Water Monitoring Stations		
• **Nearshore/Offshore Stations for Water Quality Monitoring**		
--	RSW-001	7,875 feet upcoast of the Scattergood Generating Station discharge terminus, at a depth of 20 feet. (Formerly RW1) Latitude: 33.9370°~~56.22'~~ Longitude: -118.4432°~~ 26.59'~~
--	RSW-002	1,000 feet upcoast of the Scattergood Generating Station discharge terminus, at a depth of 20 feet. (Formerly RW2) Latitude: 33.9202°~~ 55.21'~~ Longitude: -118.4355°~~ 26.13'~~
--	RSW-003	1,750 feet downcoast of the El Segundo Generating Station discharge terminus, at a depth of 20 feet. (Formerly RW3) Latitude: 33.9047°~~ 54.28'~~ Longitude: -118.4265°~~ 25.59'~~
--	RSW-004	9,900 feet downcoast of the El Segundo Generating Station discharge terminus, at a depth of 20 feet. (Formerly RW4) Latitude: 33.8947°~~ 53.68'~~ Longitude: -118.4222°~~ 25.33'~~
--	RSW-005	Directly offshore of station RSW-001, at a depth of 40 feet. (Formerly RW5) Latitude: 33.9355°~~ 56.13'~~ Longitude: -118.4505°~~ 27.03'~~

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Discharge Point Name	Monitoring Location Name	Monitoring Location Description[1]
--	RSW-006	Directly offshore of station RSW-002, at a depth of 40 feet. (Formerly RW6) Latitude: 33.9182° ~~55.09'~~ Longitude: -118.4437° ~~26.62'~~
--	RSW-007	Directly offshore of station RSW-003, at a depth of 40 feet. (Formerly RW7) Latitude: 33.9010° ~~54.06'~~ Longitude: -118.4360° ~~26.16'~~
--	RSW-008	Directly offshore of station RSW-004, at a depth of 40 feet. (Formerly RW8) Latitude: 33.8922° ~~53.53'~~ Longitude: -118.4303° ~~25.82'~~
--	RSW-009	Directly offshore of station RSW-001, at a depth of 60 feet. (Formerly RW9) Latitude: 33.9328° ~~55.97'~~ Longitude: -118.4580° ~~27.48'~~
--	RSW-010	Directly offshore of station RSW-002, at a depth of 60 feet. (Formerly RW10) Latitude: 33.9155° ~~54.93'~~ Longitude: -118.4512° ~~27.07'~~
--	RSW-011	Directly offshore of station RSW-003, at a depth of 60 feet. (Formerly RW11) Latitude: 33.8970° ~~53.82'~~ Longitude: -118.4442° ~~26.65'~~
--	RSW-012	Directly offshore of station RSW-004, at a depth of 60 feet. (Formerly RW12) Latitude: 33.8900° ~~53.40'~~ Longitude: -118.4370° ~~26.22'~~
• **Bottom Stations for Benthic Sediments Monitoring**		
--	BEN-001	Directly beneath station RSW-001. (Formerly B1) Latitude: 33.9370° ~~56.22'~~ Longitude: -118.4432° ~~26.59'~~
--	BEN-002	Directly beneath station RSW-002. (Formerly B2) Latitude: 33.9202° ~~55.21'~~ Longitude: -118.4355° ~~26.13'~~
--	BEN-003	Directly beneath station RSW-003. (Formerly B3) Latitude: 33.9047° ~~54.28'~~ Longitude: -118.4265° ~~25.59'~~
--	BEN-004	Directly beneath station RSW-004. (Formerly B4) Latitude: 33.8947° ~~53.68'~~ Longitude: -118.4222° ~~25.33'~~
--	BEN-005	Directly beneath station RSW-005. (Formerly B5) Latitude: 33.9355° ~~56.13'~~ Longitude: -118.4505° ~~27.03'~~
--	BEN-006	Directly beneath stations RSW-006. (Formerly B6) Latitude: 33.9182° ~~55.09'~~ Longitude: -118.4437° ~~26.62'~~
--	BEN-007	Directly beneath station RSW-007. (Formerly B7) Latitude: 33.9010° ~~54.06'~~ Longitude: -118.4360° ~~26.16'~~
--	BEN-008	Directly beneath station RSW-008. (Formerly B8) Latitude: 33.8922° ~~53.53'~~ Longitude: -118.4303° ~~25.82'~~
• **Mussel Station for Bioaccumulation Monitoring**		
--	MUS-001	Within the Pacific Ocean, at the Discharge Point 001 conduit, as close to the point of discharge as possible
• **Sampling Station for Impingement Survey**		
--	IMP-001	At the cooling water intake system (Intake No. 001).

1. The North latitude and West longitude information are approximate for administrative purposes.
2. The inverted siphon is a 60-inch diameter pipe that runs from east to west beneath the Warehouse Area, which collects storm water discharges from all yard drains east of the Power House Building (identified as

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East Rainfall Runoff, above elevation 34 on the waste flow schematic) and discharges this storm water through a 60-inch horizontal discharge line to the stop log chamber before the discharge structure.

III. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor the commingled wastewater (composed of storm water runoff, internal process waters, cooling tower blowdown, and once-through cooling water) 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

Table E-2. Final Effluent Monitoring Location at EFF-001[16]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow[1]	MGD	Estimate	1/Day	[2]
Temperature	°F	--	Continuous[3]	[2]
pH	pH Unit	Grab	1/Week	[2]
Total Residual Chlorine[4]	mg/L	Grab[5]	1/Day	[2]
Free Available Chlorine[4]	mg/L	Grab[5]	1/Day	[2]
Chronic Toxicity[6]	Pass or Fail, % Effect	24-hour Composite	1/Quarter[7]	[2]
Bis (2-ethylhexyl) Phthalate	µg/L	24-hour Composite	1/Month	[2]
DDT[8]	µg/L	24-hour Composite	1/Month	[2]
PCBs (as Aroclors)[9]	µg/L	24-hour Composite	1/Month	[2]
PCBs (as 41 individual congeners)	µg/L	24-hour Composite	1/Year	[10]
Total Coliform	MPN/100 ml	Grab	2/Year[13, 14]	[2]
Fecal Coliform	MPN/100 ml	Grab	2/Year[13, 14]	[2]
Enterococcus	MPN/100 ml	Grab	2/Year[13, 14]	[2]
Ammonia (as N)	µg/L as N	24-hour Composite	2/Year	[2]
Nitrate (as N)	µg/L as N	24-hour Composite	2/Year	[2]
TCDD Equivalents[11]	µg/L	24-hour Composite	2/Year	[2]
Radioactivity (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium)	pCi/ml	24-hour Composite	1/Year	[12]
Remaining Ocean Plan Table 1 Pollutants	µg/L	Grab/24-hour Composite[15]	2/Year[13]	[2]

1. When continuous monitoring is required, the total daily flow (24-hour basis) shall be reported.
2. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136. For priority pollutants, the methods must meet the lowest minimum levels (MLs) specified in Appendix II of the Ocean Plan (2012) that is required to demonstrate compliance. 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.
3. Only the maximum temperature for each calendar day shall be reported, except when temperature exceeds 100°F, in which case the reason(s), duration, and time of day of the events of elevated temperature shall be reported.

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4. Monitoring is only applicable during periods of chlorine addition. A statement certifying that chlorination did not occur during the day may be submitted in lieu of an analysis.
5. Multiple grab samples, with at least four equally-spaced samples during each hour of chlorine addition. The maximum and average concentrations for the duration of the chlorine addition shall be reported. Alternatively, a single grab sample may be collected at the time of peak residual chlorine concentration.
6. Refer to section V, Whole Effluent Toxicity Testing Requirements. "Pass" or "Fail" and "% Effect" for Maximum Daily Effluent Limitation (MDEL).
7. Monthly sampling is required in the first three months. Species sensitivity screening shall be conducted during first three monthly monitorings. The species that exhibit the highest "Percent Effect" at the discharge IWC during species sensitivity screening shall be used for the routine quarterly monitoring.
8. The mass emission (lbs/day) for DDT shall be calculated and reported using the actual concentration and the actual flow rate measured at the time of discharge, using the formula:

$$M\ (lb/day) = C \times Q \times 0.00834$$

Where:

M = mass discharge for a pollutant, lbs/day
C = actual concentration for a pollutant, µg/L
Q = actual discharge flow rate, MGD

9. The results of PCB analyses using Method 608 shall be reported in Discharge Monitoring Reports and used for assessing compliance with effluent limitations. Using U.S. EPA Method 608, PCBs (as Aroclors) shall mean the sum of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260. Non-detected and/or estimated values shall be treated as zeros in the summation of PCBs as Aroclor.
10. In addition to monitoring PCBs as Aroclors, PCBs shall be analyzed using U.S. EPA proposed Method 1668c and individually quantified and reported. Using proposed Method 1668c, PCBs (as 41 individual congeners) means the sum of 41 congeners: PCB-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, 201, and 206. Until the proposed method 1668c for PCBs is incorporated into 40 C.F.R. part 136, the results of PCB analyses using proposed Method 1668c shall be used for informational purposes for the Santa Monica Bay TMDL and shall not be used to assess compliance with effluent limitations.
11. TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners.

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

Where:

C_x = concentration of dioxin or furan congener x
TEF_x = TEF for congener x

Toxicity Equivalence Factors

Isomer Group	Toxicity Equivalence Factor (TEF)
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
Octa CDD	0.001
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
2,3,7,8 hexa CDFs	0.1

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Isomer Group	Toxicity Equivalence Factor (TEF)
2,3,7,8 hepta CDFs	0.01

12. Analyze these radiochemicals by the following U.S. EPA methods:

    Method 900.0 for gross alpha and gross beta; Method 903.0 or 903.1 for radium-226;
    Method 904.0 for radium-228; Method 906.0 for tritium;
    Method 905.0 for strontium-90; Method 908.0 for uranium.

    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.

    A statement certifying that radioactive pollutants were not added to the discharge may be submitted in lieu of monitoring.

13. Monitoring once per semiannual period (January – June, July – December).
14. For each semiannual monitoring event, at least five (5) weekly samplings and analyses shall be conducted until a geometric mean can be obtained for each parameter (using the five most recent sample results).
15. Where a composite sample for the parameter is not appropriate as specified in the respective analytical method in 40 C.F.R. part 136 or in other EPA methods, a grab sample shall be obtained in lieu of the 24-hour composite sample for that parameter.
16. If discharges of internal wastes at INT-00A, INT-001B or INT-001C occur during a discharge event, then the Discharger must sample for the final combined effluent at Monitoring Location EFF-001 during the duration of such discharges, and state so under penalty of perjury in the corresponding monitoring report.

B. Monitoring Locations INT-001A

1. The Discharger shall monitor the treated effluent from the storage tank and/or settling tanks that consists of low volume wastes and non-chemical metal cleaning wastes prior to commingling with other internal process waste streams at Monitoring Location INT-001A as follows. When this waste stream is discharging absent the once-through cooling water, an additional monthly monitoring for the Ocean Plan Table 1 constituents is required and the effluent mustshall comply with all applicable water quality objectives in Table 1 of the Ocean Plan with no dilution.

Table E-3. Low Volume Wastes (Monitoring Location INT-001A)

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Meter	1/Day[1]	[2]
pH	pH unit	Grab[3]	1/Month[1]	[2]
Total Suspended Solids (TSS)	mg/L	Grab[3]	1/Month[1]	[2]
Oil and Grease	mg/L	Grab[3]	1/Month[1]	[2]
Copper, Total Recoverable	mg/L	24-hour Composite[3]	1/Month[1]	[2]
Iron, Total Recoverable	mg/L	24-hour Composite[3]	1/Month[1]	[2]
Bis(2-ethylhexyl) Phthalate[4]	µg/L	24-hour	1/Month[1]	[2, 5]

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Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
		Composite[3]		
PCBs (as Aroclors)[6]	µg/L	24-hour Composite[3]	2/Year[7]	[2]
Remaining Ocean Plan Table 1 Pollutants (excluding toxicity)	µg/L	Grab/24-hour Composite[3, 8]	1/Year	[2]

1. For flow measurement, total daily flow (24-hour basis) shall be reported. If no discharge occurs within the month, then the report shall so state and monitoring of this waste stream is not required for that month.
2. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136. For priority pollutants, the methods must meet the lowest MLs specified in Appendix II of the Ocean Plan (2012) that is required to demonstrate compliance. Where no methods are specified for a given pollutant, the methods must be approved by this Los Angeles Water Board or the State Water Board.
3. Samples shall not be collected during a Qualifying Storm Event (QSE) or within 48 hours after a QSE. Please refer to section IX.A. for the definition of a QSE.
4. When possible, samples for bis(2-ethylhexyl) phthalate at INT-001A, INT-001B and INT-001C shall be collected on the same day.
   The mass emission (lbs/day) for the discharge shall be calculated and reported using the actual concentration and the actual flow rate measured at the time of discharge, using the formula:

   M (lbs/day) = C x Q x 0.00834

   where:

   M = mass discharge for a pollutant, lbs/day
   C = actual concentration for a pollutant in µg/L.
   Q = actual discharge flow rate at INT-001A, MGD.

   The sum of calculated mass emissions measured at INT-00A, INT-00B and INT-00C within the same day will be used for determining compliance with the mass limitation of bis(2-ethylhexyl) phthalate for all in-plant waste streams.
5. Sampling and analysis of bis (2-ethylhexyl) phthalate shall be conducted using ultra-clean techniques that eliminate the possibility of sample contamination.
6. The results of PCB analyses using Method 608 shall be reported in Discharge Monitoring Reports and used for assessing compliance with effluent limitations. Using U.S. EPA Method 608, PCBs (as Aroclors) shall mean the sum of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260. Non-detected and/or estimated values shall be treated as zeros in the summation of PCBs as Aroclor.
7. Monitoring once per semiannual period (January – June, July – December).
8. Where a composite sample for the parameter is not appropriate as specified in the respective analytical method in 40 C.F.R. part 136 or in other EPA methods, a grab sample shall be obtained in lieu of the 24-hour composite sample for that parameter.

C. Monitoring Location INT-001B

1. The Discharger shall monitor other low volume wastes containing the demineralization/reverse osmosis system wastebrine and repowering low volume wastes such as CTG inlet air evaporative cooling waste and wet surface air cooler waste prior to commingling with other internal process waste streams at Monitoring Location INT-001B as follows. When this waste stream is discharging absent the once-through cooling water, an additional monthly monitoring for all Ocean Plan Table 1 constituents is required and the effluent mustshall comply with all applicable water quality objectives in Table 1 of the Ocean Plan with no dilution.

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Table E-4. ~~Reverse Osmosis~~Demineralization System Waste~~Brine and Repowering Low Volume Wastes~~ (Monitoring Location INT-001B)

Parameter	Units	Sample Type[8]	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Meter	1/Day[1]	[2]
pH	pH unit	Grab	1/Month[1]	[2]
Total Suspended Solids (TSS)	mg/L	Grab	1/Month[1]	[2]
Oil and Grease	mg/L	Grab	1/Month[1]	[2]
Bis(2-ethylhexyl) Phthalate[3]	µg/L	24-hour Composite	1/Month[1]	[2, 4]
PCBs (as Aroclors)[5]	µg/L	24-hour Composite	2/Year[6]	[2]
Remaining Ocean Plan Table 1 Pollutants (excluding toxicity)	µg/L	Grab/24-hour Composite[7]	1/Year	[2]

1. For flow measurement, total daily flow (24-hour basis) shall be reported. If no discharge occurs within the month, then the report shall so state and monitoring of this waste stream is not required for that month.
2. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136. For priority pollutants, the methods must meet the lowest MLs specified in Appendix II of the Ocean Plan (2012) that is required to demonstrate compliance. Where no methods are specified for a given pollutant, the methods must be approved by this Los Angeles Water Board or the State Water Board.
3. When possible, samples for bis(2-ethylhexyl) phthalate at INT-001A, INT-001B and INT-001C shall be collected on the same day.
   The mass emission (lbs/day) for the discharge shall be calculated and reported using the actual concentration and the actual flow rate measured at the time of discharge, using the formula:

   M (lbs/day) = C x Q x 0.00834

   where:

   M = mass discharge for a pollutant, lbs/day
   C = actual concentration for a pollutant in µg/L.
   Q = actual discharge flow rate at INT-001A, MGD.

   The sum of calculated mass emissions measured at INT-00A, INT-00B and INT-00C within the same day will be used for determining compliance with the mass limitation of bis(2-ethylhexyl) phthalate for all in-plant waste streams.
4. Sampling and analysis of bis (2-ethylhexyl) phthalate shall be conducted using ultra-clean techniques that eliminate the possibility of sample contamination.
5. The results of PCB analyses using Method 608 shall be reported in Discharge Monitoring Reports and used for assessing compliance with effluent limitations. Using U.S. EPA Method 608, PCBs (as Aroclors) shall mean the sum of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260. Non-detected and/or estimated values shall be treated as zeros in the summation of PCBs as Aroclor.
6. Monitoring once per semiannual period (January – June, July – December).
7. Where a composite sample for the parameter is not appropriate as specified in the respective analytical method in 40 C.F.R. part 136 or in other EPA methods, a grab sample shall be obtained in lieu of the 24-hour composite sample for that parameter.
8. ~~From January 1, 2016 through June 30, 2016, the Discharge may take flow-weighed composite samples for the required analyses. The flow-weighed composite sample shall be based on measured flow rates in the demineralization/reverse osmosis brine waste stream and the repowering low volume waste stream,~~

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~~respectively, at the sampling time. The total daily flow shall also be reported. On July 1, 2016, samples will be collected at INT-001B which are representative of the commingled demineralization/reverse osmosis brine and the repowering low volume waste streams.~~

D. Monitoring Location INT-001C

1. The Discharger shall monitor cooling tower blowdown prior to commingling with other internal process waste streams at Monitoring Location INT-001C as follows:

Table E-5. Cooling Tower Blowdown (Monitoring Location INT-001C)

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Meter	1/Day[1]	[2]
pH	pH unit	Grab	1/Month[1]	[2]
Free Available Chlorine	mg/L	Grab	1/Month[1]	[2]
Chromium, Total Recoverable	mg/L	24-hour Composite	1/Month[1]	[2]
Zinc, Total Recoverable	mg/L	24-hour Composite	1/Month[1]	[2]
Bis(2-ethylhexyl) Phthalate[3]	µg/L	24-hour Composite	1/Month[1]	[2, 4]
PCBs (as Aroclors)[5]	µg/L	24-hour Composite	2/Year[6]	[2]
Remaining priority pollutants[7]	µg/L	Grab/24-hour Composite[8]	1/Month[1]	[2]

1. For flow measurement, total daily flow (24-hour basis) shall be reported. If no discharge occurs within the month, then the report shall so state and monitoring of this waste stream is not required for that month.
2. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136. For priority pollutants, the methods must meet the lowest MLs specified in Appendix II of the Ocean Plan (2012) that is required to demonstrate compliance. Where no methods are specified for a given pollutant, the methods must be approved by this Los Angeles Water Board or the State Water Board.
3. When possible, samples for bis(2-ethylhexyl) phthalate at INT-001A, INT-001B and INT-001C shall be collected on the same day.
   The mass emission (lbs/day) for the discharge shall be calculated and reported using the actual concentration and the actual flow rate measured at the time of discharge, using the formula:

   M (lbs/day) = C x Q x 0.00834
   where:
   M = mass discharge for a pollutant, lbs/day
   C = actual concentration for a pollutant in µg/L.
   Q = actual discharge flow rate at INT-001A, MGD.

   The sum of calculated mass emissions measured at INT-00A, INT-00B and INT-00C within the same day will be used for determining compliance with the mass limitation of b~~B~~is(2-ethylhexyl) p~~P~~hthalate for all in-plant waste streams.
4. Sampling and analysis of bis (2-ethylhexyl) phthalate shall be conducted using ultra-clean techniques that eliminate the possibility of sample contamination.
5. The results of PCB analyses using Method 608 shall be reported in Discharge Monitoring Reports and used for assessing compliance with effluent limitations. Using U.S. EPA Method 608, PCBs (as Aroclors) shall mean the sum of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260. Non-detected and/or estimated values shall be treated as zeros in the summation of PCBs as Aroclor.
6. Monitoring once per semiannual period (January – June, July – December).

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7. A statement certifying that these pollutants were not added to the waste stream during the reporting period may be submitted in lieu of the analytical results for these parameters.

8. Where a composite sample for the parameter is not appropriate as specified in the respective analytical method in 40 C.F.R. part 136 or in other EPA methods, a grab sample shall be obtained in lieu of the 24-hour composite sample for that parameter.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Chronic Toxicity

1. Chronic Toxicity of Chlorine Variance Conditions

The chronic toxicity test must be representative of actual discharge conditions (at a minimum) or of the alternate Proposed Modified Effluent Limitation (PMEL) of 0.436 mg/L total residual chlorine (TRC). This means that, at a minimum, the effluent samples must be chlorinated in the laboratory to levels consistent with the maximum TRC effluent concentration measured during the previous 3 months' chlorination events. Alternatively, the sample may be chlorinated to the alternate PMEL (unless the maximum TRC concentration from the previous 3 months exceeds this limit). This requirement to chlorinate samples in the laboratory applies only if the recorded effluent chlorine concentrations exceed the BAT limit of 0.2 mg/L during the previous 3 months.

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

The chronic toxicity IWC for this discharge is 9.34 percent [1/(9.7+1)] effluent.

3. 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. 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.

4. Chronic Marine and Estuarine Species and Test Methods

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

a. A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.01).

b. A static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, and the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0), or a static non-renewal toxicity test with the red abalone, *Haliotis rufescens* (Larval Shell Development Test Method).

c. A static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).

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5. **Species Sensitivity Screening**

Species sensitivity screening shall be conducted during this permit's first three monthly monitorings. For each monthly sampling event, 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 monthly monitoring.

Species sensitivity rescreening is required every 24 months. The Discharger shall rescreen with the fish, an invertebrate, and the alga 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.

6. **Quality Assurance and Additional Requirements**

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

a. The discharge is subject to determination of "Pass" or "Fail" and "Percent Effect" from a single-effluent concentration chronic toxicity test at the discharge IWC using the Test of Significant Toxicity (TST) approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1. The null hypothesis (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.

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

c. Dilution water and control water, including brine controls, shall be laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

d. 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 U.S. EPA guidance on the evaluation of concentration-response relationships found in *Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing* (40 C.F.R. part 136) (EPA 821-B-00-004, 2000).

f. 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,

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unless explicitly authorized under this section of the Monitoring and Reporting Program and the rationale is explained in the Fact Sheet (Attachment F).

7. **Preparation of Initial Investigation TRE Work Plan**

The Discharger shall prepare or update and submit a generic Initial Investigation TRE Work Plan (1-2 pages) within **90 days** of the permit effective date, to be ready to respond to toxicity events. The Discharger shall review and update this work plan as necessary so it remains current and applicable to the discharge. At minimum, the work plan shall include:

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

b. A description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the facility.

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

8. **Accelerated Monitoring Schedule for Maximum Daily Single Result: "Fail and % Effect ≥50")**

Within 24 hours of the time the Discharger becomes aware of this result, the Discharger shall implement an accelerated monitoring schedule consisting of four, five-concentration (including the discharge IWC, two dilutions above and two dilutions below IWC) toxicity tests, conducted at approximately two week intervals, over an eight week period. If each of the accelerated toxicity tests at the discharge IWC results in "Pass", the Discharger shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests at the discharge IWC results in "Fail", the Discharger shall immediately implement the Toxicity Reduction Evaluation (TRE) Process conditions set forth below.

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

a. **Preparation and Implementation of Detailed TRE Work Plan.** The Discharger shall immediately initiate a TRE using, according to the type of treatment facility, EPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002, 1999) or EPA *manual Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, 1989) 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:

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

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

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

b. **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, 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*

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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.

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

d. The Discharger shall conduct routine effluent monitoring for the duration of the TRE process. Additional accelerated monitoring and TRE work plans are not required once a TRE is begun.

e. The Los Angeles Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring results indicate there is no longer toxicity.

10. **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:

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

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

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

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

VI. LAND DISCHARGE MONITORING REQUIREMENTS– NOT APPLICABLE

VII. RECYCLING MONITORING REQUIREMENTS– NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

The receiving water monitoring program (i.e., Surface Water Monitoring Requirements and Benthic Sediments Monitoring Requirements) shall consist of periodic biological surveys of the area surrounding the discharge, and shall include studies of those physical and chemical characteristics of the receiving waters which may be impacted by the discharge. This program may be performed as a joint effort with the El Segundo Power, LLC in connection with the receiving water monitoring program for the El Segundo Generating Station.

A. Water Quality Monitoring at Monitoring Locations RSW-001 through RSW-012

1. The Discharger shall monitor the Pacific Ocean at Monitoring Locations RSW-001 through RSW-012 as follows:

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Table E-6. Receiving Water Monitoring Requirements (RSW-001-RSW-012)

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Color (Chlorophyll A and/or Color Dissolved Organic Matter [CDOM])	µg/L, mV or fluorescence units	Profile[3]	2/Year[1]	[2]
Light transmittance	Percent	Profile[3]	2/Year[1]	[2]
Dissolved Oxygen	mg/L	Profile[3]	2/Year[1]	[2]
pH	pH units	Profile[3]	2/Year[1]	[2]
Salinity	psu	Profile[3]	2/Year[1]	[2]
Temperature	ºF	Profile[3]	2/Year[1]	[2]
Visual Observations	--	Visual	2/Year[1]	[4]

1. Summer and winter during both flood and ebb tides.
2. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136. For priority pollutants, the methods must meet the lowest minimum levels (MLs) specified in Appendix II of the Ocean Plan (2012) that is required to demonstrate compliance. Where no methods are specified for a given pollutant, the methods must be approved by this Los Angeles Water Board or the State Water Board.
3. Temperature shall be measured from surface to bottom at a minimum of one meter intervals at each station. Color, dissolved oxygen, light transmittance, pH, and salinity shall be measured at surface, mid-depth, and bottom at a minimum at each station.
4. The following general observations or measurements at the receiving water stations shall be reported:
    - Tidal stage and time of monitoring.
    - General water conditions.
    - Extent of visible turbidity or color patches.
    - Appearance of oil films or grease, or floatable material.
    - Depth at each station for each sampling period
    - Presence or absence of red tide.
    - Presence of marine life.
    - Presence and activity of the California least tern and the California brown pelican.

B. Benthic Sediments Monitoring at Monitoring Locations BEN-001 through BEN-008

1. The Discharger shall collect and analyze benthic samples once per year during the summer at Monitoring Locations BEN-001 through BEN-008 as follows:

Table E-7. Sediment Grain Size and Chemical Monitoring (BEN-001 through BEN-008)

Parameter	Units	Sample Type	Minimum Sampling Frequency
Benthic Infauna Community[2]	--	0.1 square meter Van Veen grab	1/Year
Sediment Grain Size	Phi size	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Arsenic	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Beryllium	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Cadmium	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Copper	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year

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Parameter	Units	Sample Type	Minimum Sampling Frequency
Chromium (III)	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Chromium, Total	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Lead	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Mercury	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Nickel	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Selenium	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Silver	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Thallium	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Zinc	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Acid Soluble Sulfides	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
PAHs[4]	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Total DDT[5]	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
DDT derivatives[6]	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Total PCB[7]	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
PCB derivatives[8]	µg/kg[1]	0.1 square meter Van Veen grab (upper 2 centimeters)[3]	1/Year
Visual Observations[9]	--	Visual	1/Year

1. Dry weight basis.
2. One sample shall be taken at each station for benthic infaunal community analysis. The entire contents of each sample shall be passed through a 1.0 millimeter screen to retrieve the benthic organisms. Sampling methods and protocols shall follow those described in the most current edition of the *Field Operations Manual for Marine Water Column, Benthic and Trawl Monitoring in Southern California*. All organisms contained within the sample shall be identified to the lowest possible taxon and counted. The resulting data shall be used to describe community structure at each station.

   Procedures and test methods shall adhere to the following federal guidelines when applicable: Macroinvertebrate Field and Laboratory Methods for Evaluation the Biological Integrity of Surface Waters (1990) –EPA/600/4-90/030 (PB91-171363). This manual describes guidelines and standardized procedures for the use of macroinvertebrates in evaluating the biological integrity of surface waters.

   Community analysis of benthic infauna shall include number of species, number of individuals per species, total numerical abundance per station, benthic response index (BRI) and biological indices, plus

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utilize appropriate regression analyses, parametric and nonparametric statistics, and multivariate techniques or other appropriate analytical techniques.

3. A separate grab sample shall be collected at each station whenever a biological sample is collected. Sub-samples (upper two centimeters) shall be taken from the grab for sediment chemistry analyses.
4. PAHs shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4 benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.
5. Total DDT shall mean the sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD.
6. At a minimum, 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD.
7. Total PCB (polychlorinated biphenyls) 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.
8. At a minimum, PCB congeners whose analytical characteristics resemble those of PCB-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, 201, and 206 shall be individually quantified.
9. The following general observations or measurements at the benthic stations shall be reported:
   - Tidal stage and time of monitoring.
   - General water conditions.
   - Extent of visible turbidity or color patches.
   - Appearance of oil films or grease, or floatable material.
   - Depth at each station for each sampling period
   - Presence or absence of red tide.
   - Presence of marine life.
   - Presence and activity of the California least tern and the California brown pelican.

C. Bioaccumulation Monitoring at Monitoring Location MUS-001

1. Native California mussels (*Mytilus Californianus*) shall be collected during the summer from the discharge conduit, as close to the point of discharge as possible, for bioaccumulation monitoring. If mussels are unavailable near the discharge site, source mussels may be transplanted from nearby locations. Mussel tissue shall be analyzed for the parameters listed in the Table below.

Table E-8. Mussels Bioaccumulation Monitoring Requirements (MUS-001)

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Arsenic	µg/kg	Tissue	1/Year	[1]
Beryllium	µg/kg	Tissue	1/Year	[1]
Cadmium	µg/kg	Tissue	1/Year	[1]
Copper	µg/kg	Tissue	1/Year	[1]
Chromium, Total	µg/kg	Tissue	1/Year	[1]
Lead	µg/kg	Tissue	1/Year	[1]
Mercury	µg/kg	Tissue	1/Year	[1]
Nickel	µg/kg	Tissue	1/Year	[1]
Selenium	µg/kg	Tissue	1/Year	[1]
Silver	µg/kg	Tissue	1/Year	[1]
Thallium	µg/kg	Tissue	1/Year	[1]
Zinc	µg/kg	Tissue	1/Year	[1]
PAHs[2]	µg/kg	Tissue	1/Year	[1]

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Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total DDT[3]	µg/kg	Tissue	1/Year	[1]
DDT derivatives[4]	µg/kg	Tissue	1/Year	[1]
PCB[5]	µg/kg	Tissue	1/Year	[1]
PCB derivatives[6]	µg/kg	Tissue	1/Year	[1]

1. Procedures used to determine compliance with bioaccumulation monitoring should use the *U.S. EPA. Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories* (November 2000, U.S. EPA 823-B-00-007), NOAA Technical Memorandum NOS ORCA 130, *Sampling and Analytical Methods of the National Status and Trends Program Mussel Watch Project* (1998 update), and/or State Mussel Watch Program, 1987-1993 Data Report, State Water Resources Control Board 94-1WQ.
2. PAHs shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4 benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.
3. Total DDT shall mean the sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD.
4. At a minimum, 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD.
5. Total PCB (polychlorinated biphenyls) 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.
6. At a minimum, PCB congeners whose analytical characteristics resemble those of PCB-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, 201, and 206 shall be individually quantified.

D. Impingement Survey at Monitoring Location IMP-001

1. The Discharger shall collect fish and commercially important macroinvertebrates in the intake cooling water at Monitoring Location IMP-001 as follows:

Table E-9. Intake Monitoring at Monitoring Location IMP-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Fish & Macroinvertebrates	--	Grab	6/Year[1]	[2]

1. Impingement sampling for fish and commercially important macroinvertebrates shall be conducted at least once every two months at the intake system (Intake 001). When possible, Impingement sampling shall coincide with heat treatment.
2. Fish and macroinverbrates shall be identified to the lowest possible taxon. Data reported shall include numerical abundance of each fish and macroinvertebrate species, wet weight of each species (when combined weight of individuals in each species exceeds 0.2 kg), number of individuals in each 1-centimeter size class (based on standard length) for each species and total number of species are collected. When large numbers of given species are collected, length/weight data need only be recorded for 50 individuals and total number and total weight may be estimated based on aliquots samples. Total fish impinged per heat treatment or sampling event shall be reported and data shall be expressed per unit volume water entrained.

E. Regional Monitoring Program

1. Discharger participation in regional monitoring programs is required as a condition of this permit. While participation in regional programs is required under this permit, revisions to the Discharger's monitoring program at the direction of the Los Angeles Water Board may be necessary to accomplish the goals of regional monitoring or to allow the performance of special studies to investigate regional or site-specific water issues of concern. These revisions may include a reduction or increase in the number of

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parameters to be monitored, the frequency of monitoring, or the number and size of samples to be collected. Such changes may be authorized by the Executive Officer upon written notification to the Discharger

The regional programs which must be conducted under this permit include:

a. Future Southern California Bight regional surveys, including benthic infauna, sediment chemistry, fish communities and fish predator risk; and

b. Central Region Kelp Monitoring Program – quarterly overflights to assess kelp beds.

2. Regular regional monitoring for the Southern California Bight has been established, occurring at four- to five-year intervals, and coordinated by the Southern California Coastal Water Research Project with discharger agencies and numerous other entities. The sixth regional monitoring program is expected to begin during 2018. The Discharger shall complete collection and analysis of samples in accordance with the schedule established by the Steering Committee directing the Bight-wide regional monitoring surveys. The level of participation shall be similar to that provided by the Discharger in previous regional surveys conducted in 1994, 1998, 2003, 2008 and 2013. This program may be performed as a joint effort with El Segundo Power LLC in connection with the receiving water monitoring program for the El Segundo Generating Station.

3. The Regional Water Board has helped to establish the Central Region Kelp Survey Consortium to conduct regional kelp bed monitoring. This program is designed to require ocean dischargers in the Regional Water Board's jurisdiction to undertake a collaborative program (which may include participation by Orange County ocean dischargers) to monitor kelp beds in the Southern California Bight, patterned after the successful program implemented by the San Diego Regional Water Board since 1985. Data collected in this regional survey will be used to assess status and trends in kelp bed health and spatial extent. The regional nature of the survey will allow the status of beds local to specific dischargers to be compared to regional trends. The regional kelp monitoring survey was initiated during 2003.

   The regional survey will consist primarily of quarterly aerial overflights to assess the size and health of existing kelp beds. The Discharger shall participate in the management and technical committees responsible for development of the final survey design. The Discharger also shall provide appropriate financial support to help fund the survey; the shared funding costs will be based on the number of participants in the study, but shall not exceed a maximum of $10,000 per year per share.

IX. OTHER MONITORING REQUIREMENTS

A. Storm Water Monitoring

1. The Discharger shall record precipitation daily from a rain gauge installed on-site.
2. Storm water samples shall be collected at INT-001D~~,~~ and INT-001E ~~and INT-001F,~~ at a Qualifying Storm Event (QSE). A QSE is a precipitation event that:
   a. Produces a discharge for at least one drainage area; and,
   b. Is preceded by 48 hours with no discharge from any drainage area.
3. Samples from each discharge location shall be collected within four (4) hours of:
   a. The start of the discharge; or,

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b. The start of facility operation if the QSE occurs within the previous 12-hour period (e.g. for storms with discharges that begin during the night for facilities with day-time operating hours). Sample collection is required during scheduled facility operating hours and when sampling conditions are safe.

Table E-10. Storm Water Monitoring (Monitoring Location INT-001D, ~~INT-001E~~ and INT-001E~~F~~)

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	estimated	1/Storm Event[1]	[2]
pH	pH unit	Grab	1/Month First available QSE of the month	[2]
TSS	mg/L	Grab	1/Month First available QSE of the month	[2]
Oil and Grease	mg/L	Grab	1/Month First available QSE of the month	[2]
Priority Pollutants excluding asbestos	µg/L	Grab	Once every two years (Beginning in 2016) First available QSE of the year	[2]

1. The Discharger shall report the data of the precipitation event and the estimated daily volume of storm water from each drainage area.
2. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136. For priority pollutants, the methods must meet the lowest MLs specified in Appendix II of the Ocean Plan (2012) that is required to demonstrate compliance. Where no methods are specified for a given pollutant, the methods must be approved by this Los Angeles Water Board or the State Water Board.

B. Monitoring for Discharges of Calcareous Material

1. During the discharge of calcareous material (excluding heat treatment discharge) to the receiving waters, the following observations or measurements shall be recorded and reported in the next monitoring report:

   a. Date and times of discharge(s).
   b. Estimate of the volume and weight of discharge(s).
   c. Composition of discharge(s).
   d. General water conditions and weather conditions.
   e. Appearance and extent of any oil films or grease, floatable materials or odors.
   f. Appearance and extent of visible turbidity or color patches.
   g. Presence of marine life.
   h. Presence and activity of the California least turn and the California brown pelican

C. Outfall and Diffuser Inspection

The ocean outfall shall be externally inspected a minimum of once per permit term and it shall be completed no later than December 31, 2019. Inspections shall include observations and photographic/videographic records of the outfall pipes and adjacent ocean bottom. The pipes shall be visually inspected by a diver, manned submarine, or remotely operated vehicle. A summary report of the inspection findings shall be submitted to the Los Angeles Water Board by May 1 of the following year. This written report, augmented with videographic and/or photographic images, will provide a description of the observed condition of the discharge pipe from shallow water to the terminus.

X. REPORTING REQUIREMENTS

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A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. If there is no discharge during any reporting period, the report shall so state.
3. Quarterly analyses shall be performed during the months of February, May, August, and November. Semiannual analyses shall be performed during the months of May and November. 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.
4. 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.
5. 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.
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.
7. The Discharger shall report the results of chronic toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, section V.

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS Web site will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit quarterly SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

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Table E-11. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	AprilJanuary 1, 2016	All	Submit with quarterly SMR
Daily	AprilJanuary 1, 2016	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with quarterly SMR
Monthly	AprilJanuary 1, 2016	1st day of calendar month through last day of calendar month	Submit with quarterly SMR
Quarterly	AprilJanuary 1, 2016	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	AprilJanuary 1, 2016	January 1 – June 30 July 1 – December 31	August 1 February 1
Annually	AprilJanuary 1, 2016	January 1 through December 31	February 1

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4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable reported Minimum Level (reported ML, also known as the Reporting Level, or RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136.

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

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

   b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

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

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

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

5. **Compliance Determination**. Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined above and Attachment A. 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 reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).

6. **Multiple Sample Data.** When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND), the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

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

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

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

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

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

C. Discharge Monitoring Reports (DMRs)

1. On October 1, 2014, notification was given specifically for the electronic submittal of DMRs. Therefore, the Discharger shall submit DMRs electronically via CIWQS.

D. Other Reports

1. The Discharger shall report the results of any special studies, chronic toxicity testing, TRE/TIE, pollution prevention plans, and pollutant minimization program required by Special Provisions VI.C.2.a., VI.C.3.a., and VI.C.3.b. The Discharger shall report the progress in satisfaction of compliance schedule dates specified in Special Provision VI.C.4a and b. The Discharger shall submit reports in compliance with SMR reporting requirements described in subsection X.B.

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2. Within **90 days** of the effective date of this permit, the Discharger is required to submit the following required by Special Provisions of this Order to the Los Angeles Water Board:

   a. An Initial Investigation TRE workplan.
   b. An updated Storm Water Pollution Prevention Plan (SWPPP).
   c. An updated Best Management Practices Plan (BMPP).
   d. A Mixing Zone and Dilution Credit Study Work Plan.

3. The receiving water monitoring report containing the results of bimonthly, semiannual and annual monitoring shall be received at the Los Angeles Water Board by **March 1** of each year following the calendar year of data collection.

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ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section II.B of this Order, the Los Angeles Water Board incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

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

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I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	4B193500003
Discharger	Los Angeles Department of Water and Power
Name of Facility	Scattergood Generating Station
Facility Address	12700 Vista Del Mar
	Playa Del Rey, CA, 90293
	Los Angeles County
Facility Contact, Title and Phone	Katherine Rubin, Manager of Wastewater Quality and Compliance, (213) 367-0436
Authorized Person to Sign and Submit Reports	Katherine Rubin, Manager of Wastewater Quality and Compliance, (213) 367-0436
Mailing Address	111 North Hope Street, Room 1213, Los Angeles, CA 90012
Billing Address	SAME as Mailing Address
Type of Facility	Industrial (Electric Services; SIC 4911)
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	N/A
Recycling Requirements	N/A
Facility Permitted Flow	226 MGD (after December 31, 2015)
Facility Design Flow	226 MGD (after December 31, 2015)
Watershed	Santa Monica Bay
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean waters

A. The Los Angeles Department of Water and Power (LADWP) (hereinafter Discharger) is the owner and operator of the Scattergood Generating Station (hereinafter Facility), a steam electric generating station.

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

B. The Facility discharges wastewater to the Pacific Ocean, a water of the United States. The Discharger was previously regulated by Order 00-083 and National Pollutant Discharge

Elimination System (NPDES) Permit No. CA0000370 adopted on June 29, 2000 and expired on May 10, 2005. The terms and conditions of the current permit, as per 40 Code of Federal Regulations (C.F.R.) part 122, have been continued and remain in effect until new Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit are adopted pursuant to this Order. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211.

C. In accordance with Title 23, California Code of Regulations (CCR) and Title 40, Code of Federal Regulations (CFR), respectively, the Discharger is required to file a report of waste discharge (ROWD) at least 180 days prior to the expiration of the existing permit. The Discharger filed an ROWD and applied for renewal of its WDRs and NPDES permit on November 10, 2004. Subsequently, per State Water Board's request, the Discharger resubmitted an updated ROWD on September 25, 2008. The delay in renewal of this permit for a coastal power plant is the result of efforts to develop and implement the *Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling*. The Policy was adopted by the State Water Board on May 4, 2010 and became effective on October 1, 2010. It was later amended by the State Water Board on July 19, 2011 and June 18, 2013, respectively. The amended Policy became effective on April 2, 2014. Per Los Angeles Regional Board's request, the Discharger filed an ROWD and resubmitted an application for reissuance of its WDRs and NPDES permit on April 20, 2014. Supplemental information was requested on April 25, 2014, June 9, 2014, December 2, 2014 and February 19, 2015 and received on May 6, 2014, September 12, 2014, February 18, 2015 and March 12, 2015, respectively. The application was deemed complete on March 26, 2015. Site visits were conducted on March 14, 2014 and February 19, 2015, to observe operations and collect additional data to develop permit limitations and requirements for waste discharge.

II. FACILITY DESCRIPTION

The Discharger owns and operates the Facility located at 12700 Vista Del Mar, Playa Del Rey, California. It is at the western boundary of the City of El Segundo, across Vista Del Mar from Dockweiler State Beach and Santa Monica Bay. The Facility has three natural gas fired steam electric generating units. Units 1 and 2 have a net electrical generating capacity of 179 megawatts (MW) each. Unit 3 has a net electrical generating capacity of 460 MW. The total capacity of the Facility is 818 MW. Units 1 and 2 have been online since 1958, while Unit 3 has operated since 1974.

The Facility is currently in the process of repowering Unit 3, which is to be replaced by a Combined Cycle Generating System (CCGS) to provide base load and a Simple Cycle Generating System (SCGS) to provide peak load. The CCGS consists of one combustion turbine generator (CTG), coupled to one steam turbine generator (STG) producing up to 310 MW. The exhaust heat from the CTG (Unit 4) is passed through a Heat Recovery Stream Generator (HRSG), which produces stream to drive the STG (Unit 5). The SCGS consists of two combustion turbine generators (Units 6 and 7) that can be started and stopped quickly, providing peak power. Units 6 and 7, which have a net output of 99 MW each, can be operated individually or in combination.

The Unit 3 repowering project is scheduled for completion by December 31, 2015, at which time Unit 3 will be taken offline. The new units (Units 4, 5, 6, and 7) utilize dry cooling towers, therefore,

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after start-up, the use of once-through cooling water will be reduced by 55 percent or 271 MGD. Units 1 and 2 will continue to use once-through cooling water until they are eventually replaced (no later than 2024).

Currently, wastewaters generated by Facility operations include once-through cooling water from Units 1, 2, and 3, process waters associated with electric generation, and storm water runoff. Sanitary wastewater generated at the Facility is discharged to the municipal sanitary sewer. During construction of the new units, groundwater dewatering is regulated by CAG994004 for the Discharges of Groundwater from Construction Dewatering to Surface Waters. Hydrostatic test water at the Facility is regulated under CAG674001, Discharges of Low Threat Hydrostatic Test Water to Surface Waters. This Order does not address sanitary wastewater, construction dewatering, or hydrostatic test water.

A summary of the Facility's wastewater sources is provided in the tables below. These waste streams are based on the updated flow diagrams submitted by the Discharger dated March 12, 2015 and the subsequent revision submitted on November 6, 2015.

Table F-2. Plant Waste Streams ~~after December 31, 2015~~

Discharge Point	Contributory Waste Stream	Treatment Description	Maximum Flow (MGD)
001	Units 1 and 2 Condenser Cooling (Once-through)	None	224.640
	Internal Waste Streams		
001 (via INT-001A)	Unit 3 Repowering Low Volume Wastes[1]	~~Oil/Water Separator, Settling Basin~~	~~0.101~~
	Heat Recovery Steam Generator (HRSG) Blowdown[2]	Oil/Water Separator, Settling Basin	0.039
	CTG Inlet Air Evaporative Cooling	Oil/Water Separator, Settling Basin	0.073
	Wet Surface Air Cooler	Oil/Water Separator, Settling Basin	0.122
	Equipment Containment Drains (new)	Oil/Water Separator, Settling Basin	0.101
	Equipment Containment Drains (existing)	Oil/Water Separator, Settling Basin	0.010
	Boiler and Air Pre-heater Wash Water-Units 1 and 2 (Non-chemical Metal Cleaning Wastes)	Settling Basin	0.040
	Condensate Polisher Regeneration Wastes	Settling Basin	0.022
	Boiler Blowdown	Settling Basin	0.005
	Floor Drain Wastes	Settling Basin	0.011
	Chemical Lab Drains	Settling Basin	0.008
	Miscellaneous Low Volume Wastes	Settling Basin	0.011
	~~Storm Water Runoff (Below Elevation 34ft.)~~	~~Settling Basin~~	~~0.025~~
001 (via INT-001B)	Demineralization/Reverse Osmosis System Waste~~Brine~~	None	0.175
	~~CTG Inlet Air Evaporative Cooling[1]~~	~~None~~	~~0.073~~

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Discharge Point	Contributory Waste Stream	Treatment Description	Maximum Flow (MGD)
	~~Wet Surface Air Cooler~~[2]	~~None~~	~~0.122~~
001 (via INT-001C)	Cooling Tower Blowdown	None	0.015
001 (via Inverted Siphon)	East Rainfall Runoff ~~(Above Elevation 34 ft.)~~	None	0.303
001	West Rainfall Runoff ~~(Above Elevation 34 ft.)~~	None	0.140
		Total Maximum Flow:	**225.71540**

1. Waste streams resulting from repowering of Unit 3.

The actual flow at Discharge Point 001 from January 1, 2009 through January 31, 2014 varied from zero to 452 MGD. The average flow during this period was 285 MGD**.**

A. Description of Wastewater and Biosolids Treatment and Controls

(Please refer to pages C-1 ~~and C-2~~ for Flow Schematic~~s~~)

1. Once-Through Cooling Water

The Facility withdraws intake water from the Santa Monica Bay through a concrete conduit with a 12-foot inside diameter. The intake conduit extends offshore approximately 1,600 feet terminating at a depth of 20 feet below mean lower low water (MLLW). The inlet of the intake pipe is fitted with a velocity cap that is mounted on a 90-degree elbow, which raises the intake opening approximately 10 to 15 feet off the ocean floor. This elevation minimizes any direct disturbance to the sea floor that may result from currents created by the intake flow. The velocity cap serves to minimize the entrainment of motile fishes through the intake conduit by creating a rapid directional change in the inflow current, thereby triggering a flight response in many fishes. An effectiveness study done in 2006 found the velocity cap to be 97% effective at minimizing the intake of marine life. The on-shore intake structure consists of a forebay, bar racks to remove large debris, and vertical traveling screens that rotate periodically to remove smaller debris and any impinged organisms. After passing through the Facility, the cooling water is discharged into Santa Monica Bay through a pipe that runs 1,200 ft. offshore and is parallel to the intake conduit.

Currently, intake water is used for once-through cooling associated with Units 1, 2, and 3. The new Units 4, 5, 6, and 7 that replace Unit 3 will use dry cooling towers for waste heat removal. Once Unit 3 is offline by December 31, 2015, the once-through cooling water flow will be reduced by 55%. Cooling water effluent design flows provided in the Discharger's Report of Waste Discharge (ROWD) are as follows:

Existing Units 1, 2 and 3 until December 31, 2015: 495.360 MGD

Units 1, 2, 4, 5, 6, and 7 after December 31, 2015: 224.640 MGD

Marine biofouling of the cooling water conduits (intake and discharge) is controlled by temporarily recirculating and reversing the flow of the once-through cooling water alternately in each offshore conduit (i.e., the discharge point becomes the intake point, and vice-versa). This effectively increases the temperature of the circulating water and achieves mortality of many encrusting organisms that adhere to cooling structures. This

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process is referred to as a “heat treatment.” Elevated temperatures are maintained for 1 hour while gate adjustments can last as long as 2 hours per heat treatment cycle.

Periodic chlorination of intake water is performed to control biological growths on the condenser tubes not sufficiently addressed by heat treatment procedures. Condenser tubes are arranged in banks of two per generating unit, with each bank referred to as a condenser half. Condenser halves are typically treated by the injection of chlorine (in the form of sodium hypochlorite) into the cooling water flow intermittently throughout the day for a total chlorination time of no more than 2 hours per day per generating unit.

Calcareous shell debris accumulates in the intake structure as a result of heat treatments. Approximately once per year, this shell debris is manually removed from the intake and disposed of in the ocean.

Once-through cooling water from Units 1, 2, and 3 is conveyed to the stop log chamber, a floodgate structure where horizontal slats may be inserted to adjust the discharge flow rate. From the stop log chamber the commingled wastes flow through the outfall structure to Discharge Point 001.

2. Low Volume Wastes

A variety of low volume wastes are generated through the normal operations of the Facility. Currently, the low volume wastes consist of boiler and evaporator blowdown, demineralization/reverse osmosis system waste~~brine~~, laboratory drains, condensate polisher regeneration wastes, boiler and air pre-heater wash water (non-chemical metal cleaning wastes), floor drains, equipment drains, cooling tower blowdown and miscellaneous low volume wastes.

During construction of the new units (4, 5, 6 and 7), the existing oil/water separator must be removed to accommodate construction. The temporary treatment system for low volume wastes (excepting the cooling tower blowdown) consists of a new oil/water separator, a storage tank, an existing settling tank and four-21 thousand gallon baker tanks in series, connected to two separate pumps each for redundancy. The cooling tower blowdown is discharged to the Inverted siphon prior to discharge via Discharge Point 001.

Upon completion of the construction, two new settling tanks, designated as Tanks B and C, will be installed to replace the temporary tanks (baker tanks and storage tank). The discharge from the settling system (Settling Tanks A, B and C) will combine with Unit 1 and 2 condenser cooling water (once-through cooling water) and other in-plant wastes in the stop log chamber prior to discharge through Discharge Point 001.

As of December 31, 2015, additional new sources of low volume wastes will result from the repowering of Unit 3. The new Heat Recovery Steam Generator (HRSG) blowdown, ~~will be routed to the Settling Tanks A, B or C for treatment. Other new low volume wastes that include~~ Combustion Turbine Generator (CTG) inlet air evaporative cooling, and wet surface air cooler wastes will be conveyed ~~directly~~ to the oil/water separator and then routed to the Settling Tanks.~~inverted siphon, where they commingle with other in-plant wastes.~~

3. Metal Cleaning Wastes

Metal cleaning wastes, both chemical and non-chemical, are periodically generated when the metallic surfaces of various Facility systems are cleaned. Air preheater and boiler fireside washes are typically conducted manually without the use of chemical

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additives. Other facility equipment (e.g., boilers) requires chemical-based cleanings to remove scale, rust and corrosion accumulated during the normal operational cycles.

Non-chemical metal cleaning wastes (air pre-heater and boiler fireside washes) are discharged to the low volume waste retention system (Baker tanks, temporary storage tank or the existing settling tank; after construction Settling Tanks A, B or C). The Discharger did not report any such non-chemical cleaning waste discharges during the previous permit cycle, but identified non-chemical metal cleaning wastes (boiler and air preheater wash waters) as potential wastewater sources in the ROWD.

Chemical metal cleaning wastes from Units 1-3 (boiler acid rinses) were historically collected and treated offsite. The Discharger has indicated that these wastes will no longer be included in the discharge.

4. Cooling Tower Blowdown

Currently, cooling tower blowdown is conveyed, without treatment, to the inverted siphon and then to the stop log chamber. Cooling tower makeup water is currently provided by the municipal water supply company.

In the March 20, 2014 letter, the Discharger indicated that the makeup water will be supplied by reused hydrostatic test water. However, during the February 19, 2015 site visit, the Discharger indicated the recycled water was never used as cooling tower makeup water.

As a component of repowering Unit 3, the Facility will continue to operate the existing cooling tower and will also employ new dry cooling towers. The dry cooling towers will generate a wet surface air cooler blowdown that will be conveyed to the oil/water separator and then routed to the Settling Tanks. ~~directly to the inverted siphon without treatment.~~

5. Storm Water Runoff and Floor Drains

Storm water runoff that is regulated by this permit is collected in two~~three~~ areas: ~~1) areas below elevation 34 ft., 2~~1) eastern areas, and ~~3~~2) western areas. ~~Storm water from the site areas below an elevation of 34 ft. collects into a sump followed by an oil/water separator. Storm waters that collect in floor drains also flow to the oil/water separator. From the oil/water separator this waste stream is routed on an alternating basis to the storage tank or the settling tank. Upon completion of repowering, a portion of storm water runoff will be routed to Settling Tanks A, B or C without treatment from the oil/water separator. The effluent from the settling tanks will commingle with the once-through cooling water.~~

Storm water from the eastern areas flows to the inverted siphon without treatment. Storm water from the western areas is routed to the stop log chamber without treatment. Upon completion of repowering, these storm water~~s~~ discharges will continue to be routed to the inverted siphon and the stop log chamber.

B. Discharge Points and Receiving Waters

The Facility discharges a combined effluent through an outfall structure that extends 1,200 feet offshore to Discharge Point 001 to the Santa Monica Bay of the Pacific Ocean at latitude 33.9167º and longitude -118.4339º. The discharge is an ocean discharge within the Santa Monica Bay Watershed Management Area.

The previous permit (Order No. 00-083) established an initial dilution ratio of 9.7 to 1 (i.e., parts sea water to one part effluent) for Discharge Point 001, except for residual chlorine

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which is 10.7 to 1. These ratios were based on calculations made by the Discharger and approved by the State Water Board (transmitted to the Los Angeles Water Board in a State Water Board memorandum dated February 4, 1985).

C. 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 are as follows:

Table F-3. Historic Effluent Limitations and Monitoring Data at Discharge Point 001

Parameter	Units	Effluent Limitation		Discharge Point 001 Monitoring Data (From January 2009 to December 2014)	
		Average Monthly	Maximum Daily	Highest Average Monthly Discharge	Highest Daily Discharge
Temperature	ºF	--	100/135/140[1]	--	104/130[2]
pH	standard units	6.0-9.0[3]		7.37-8.4[4]	
Chlorine, Total Residual	mg/L	--	0.436	--	0.430
Chlorine, Free Available	mg/L	0.2	--	0.18	--
Arsenic, Total Recoverable	µg/L	57	313	7.5	15
Cadmium, Total Recoverable	µg/L	11	43	0.084	0.12
Chromium[6] (Hexavalent)	µg/L	21	86	<4	0.71
Copper, Total Recoverable	µg/L	13	109	1.92	3.5
Lead, Total Recoverable	µg/L	21	86	0.28	0.74
Mercury, Total Recoverable	µg/L	0.4	1.71	0.02	0.09
Nickel, Total Recoverable	µg/L	54	214	1.1	2.0
Selenium, Total Recoverable	µg/L	161	642	16	102
Silver, Total Recoverable	µg/L	6	28	0.43	0.68
Zinc, Total Recoverable	µg/L	136	778	3.8	12
Chronic Toxicity	TUc	--	10.7	--	4
Radioactivity	pCi/L	[5]		[6]	

1. The temperature of wastes discharged shall not exceed 100ºF during normal operation of the Facility. During heat treatment, the temperature of wastes discharged shall not exceed 135ºF except during adjustment of the recirculation gate at which time the temperature of wastes discharged shall not exceed 140ºF. Temperature fluctuations during gate adjustment above 135ºF shall not last for more than 30 minutes.
2. Maximum observed temperature during normal operation/maximum observed temperature during heat treatment.
3. Within the range of 6.0-9.0 at all times.
4. Range of observed data.
5. Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3 Article 3, Section 30269, California Code of Regulations.
6. As allowed by Order 00-083, annual statements indicating no radioactive materials were used at the Facility were provided in lieu of monitoring data.

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Table F-4. Historic Effluent Limitations and Monitoring Data for Low Volume Wastes

Parameter	Units	Effluent Limitation		Low Volume Wastes Monitoring Data (From January 2009 to December 2014)	
		Average Monthly	Maximum Daily	Highest Average Monthly Discharge	Highest Daily Discharge
Settling Basin					
Total Suspended Solids (TSS)	mg/L	30	100	50	50
Oil and Grease	mg/L	15	20	8	8
Reverse Osmosis					
TSS	mg/L	30	100	4.4	4.4
Oil and Grease	mg/L	15	20	6	6
Rainfall Runoff					
TSS	mg/L	30	100	61	74
Oil and Grease	mg/L	15	20	6.5	7.0

Table F-5. Historic Effluent Limitations and Monitoring Data for Chemical Metal Cleaning Wastes

Parameter	Units	Effluent Limitation		Chemical Metal Cleaning Wastes Monitoring Data (From January 2009 to December 2014)	
		Average Monthly	Maximum Daily	Highest Average Monthly Discharge	Highest Daily Discharge
TSS	mg/L	30	100	[1]	
Oil and Grease	mg/L	15	20		
Copper, Total Recoverable	mg/L	1.0	1.0		
Iron, Total Recoverable	mg/L	1.0	1.0		

1. No Chemical Metal Cleaning Wastes were discharged during the period of January 2009 through December 2014.

Table F-6. Historic Effluent Limitations and Monitoring Data for Cooling Tower Blowdown

Parameter	Units	Effluent Limitation		Cooling Tower Blowdown (From January 2009 to December 2014)	
		Average Monthly	Maximum Daily	Highest Average Monthly Discharge	Highest Daily Discharge
The 126 priority pollutants (Appendix A) contained in chemicals added for cooling tower maintenance, except:	mg/L	[1]	[1]	[2]	[2]
Chromium, Total	mg/L	0.2	0.2	0.08	0.08
Zinc, Total	mg/L	1.0	1.0	1.01	1.23

1. Order 00-083 allowed for a statement certifying that priority pollutants were not added to the waste stream in lieu of the analytical result for this parameter. From the period of January 2009-December 2014, the Discharger provided this certification, thus no data were collected.
2. No detectable amount of the 126 priority pollutants contained in chemicals added for cooling tower maintenance.

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D. Compliance Summary

The following table summarizes the reported violations of effluent limitations that occurred from January 2009 through January 2014:

Table F-7. Summary of Compliance History

Date	Monitoring Period	Violation Type	Pollutants	Reported Value	Permit Limitation	Units
08/23/2009	3rd Quarter 2009	Instantaneous Maximum	Temperature	103	100	ºF
08/31/2009	3rd Quarter 2009	Instantaneous Maximum	Temperature	102	100	ºF
09/01/2009	3rd Quarter 2009	Instantaneous Maximum	Temperature	102	100	ºF
09/02/2009	3rd Quarter 2009	Instantaneous Maximum	Temperature	104	100	ºF
09/03/2009	3rd Quarter 2009	Instantaneous Maximum	Temperature	101	100	ºF
09/04/2009	3rd Quarter 2009	Instantaneous Maximum	Temperature	101	100	ºF
01/31/2010	1st Quarter 2010	Average Monthly	TSS Low Volume Rainfall Runoff	61	30	mg/L
05/14/2013	2nd Quarter 2013	Daily Maximum	Zinc Cooling Tower Blowdown	1.23	1.0	mg/L
05/31/2013	2nd Quarter 2013	Average Monthly	TSS Low Volume Waste	40	30	mg/L
09/10/2013	3rd Quarter 2013	Daily Maximum	Zinc Cooling Tower Blowdown	1.08	1.0	mg/L
10/31/2013	4th Quarter 2013	Average Monthly	TSS Low Volume Waste	50	30	mg/L

To address the violations that occurred between August 23, 2009 and January 31, 2010, the Los Angeles Water Board issued Settlement Offer No. R4-2011-0081-M on April 21, 2011. On June 21, 2011, the Discharger delivered to the Los Angeles Water Board a signed Acceptance of Conditional Resolution and Waiver of Right to Hearing (proposed) Order addressing the violations. The Discharger submitted the penalty amount of $12,000 to the Los Angeles Water Board on July 18, 2011. For the remaining excursions, the Los Angeles Water Board has issued Settlement Offer No. R4-2014-0180 on September 17, 2014. The Discharger accepted the Settlement Offer and submitted the penalty amount of $6,000 to the Los Angeles Water Board on January 16, 2015. Since January 2014, two total suspended solids limitation exceedances in the low volume wastes, one temperature limitation exceedance in the final effluent, and one reporting violation were enumerated. These violations are currently being evaluated for appropriate action.

CEI inspections were conducted on June 4, 2009, April 20, 2010, and April 9, 2013. No violations were noted from the inspections.

E. Planned Changes

As described in section II.A of the Fact Sheet, Unit 3 will be replaced with a CCGS and a SCGS, which will utilize dry cooling. The repowering is scheduled for completion by December 31, 2015. In addition, the Discharger plans to comply with Track 1 of the OTC

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Policy for Units 1 and 2 by 2024, which will eliminate the use of once-through cooling water at the Facility.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

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

B. California Environmental Quality Act (CEQA)

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

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

1. **Water Quality Control Plan.** The Los Angeles Water Board adopted a Water Quality Control Plan for the Los Angeles Region (hereinafter Basin Plan) on June 13, 1994 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean and all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board (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. Requirements in this Order implement the Basin Plan.

   Beneficial uses applicable to the Pacific Ocean at Dockweiler Beach are as follows:

Table F-8. Basin Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Use(s)
001	**Dockweiler Beach** (Hydrologic Unit 405.12)	Existing: Industrial service supply (IND), navigation (NAV), water contact recreation (REC-1), non-contact water recreation (REC-2), commercial and sport fishing (COMM), marine habitat (MAR), and wildlife habitat (WILD). Potential: Spawning, reproduction, and/or early development (SPWN).

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Discharge Point	Receiving Water	Beneficial Use(s)
	Pacific Ocean Nearshore Zone (The zone bounded by the shoreline and a line 1000 feet from the shoreline or the 30-foot depth contours, whichever is further from the shoreline)	Existing: Industrial service supply (IND); navigation (NAV); water contact recreation (REC-1), non-contact water recreation (REC-2), commercial and sport fishing (COMM); marine habitat (MAR); wildlife habitat (WILD); preservation of biological habitats (BIOL)[1]; rare, threatened, or endangered species (RARE)[2]; migration of aquatic organisms (MIGR)[3]; spawning, reproduction, and/or early development (SPWN)[3]; and shellfish harvesting (SHELL)[4]
	Offshore Zone	Existing: Industrial service supply (IND); navigation (NAV); commercial and sport fishing (COMM); marine habitat (MAR); wildlife habitat (WILD); rare, threatened, or endangered species (RARE)[2]; migration of aquatic organisms (MIGR) [3]; spawning, reproduction, and/or early development (SPWN) [3]; and shellfish harvesting (SHELL)

1. Areas of Special Biological Significance (along coast from Latigo Point to Laguna Point) and Big Sycamore Canyon and Abalone Cove Ecological Reserves and Point Femin Marine Life Refuge.
2. One or more rare species utilizes all ocean, bays, and estuaries, and coastal wetlands for foraging and/or nesting.
3. Aquatic organisms utilize all bays, estuaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.
4. Areas exhibiting large shellfish populations include Malibu, Point Dume, Point Fermin, White Point and Zuma Beach.

2. **Thermal Plan.** The State Water Board adopted *the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan) on January 7, 1971, and amended this plan on September 18, 1975. This plan contains temperature objectives for coastal waters. Requirements of this Order implement the Thermal Plan.

3. **California Ocean Plan (2012).** The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, 2009, and 2012. The State Water Board adopted the latest amendment on October 16, 2012, and it became effective on August 19, 2013. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies beneficial uses of ocean waters of the state to be protected as summarized below:

Table F-9. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001	Pacific Ocean	Industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance (ASBS); rare and endangered species; marine habitat; fish spawning and shellfish harvesting

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In order to protect the beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order implement the Ocean Plan.

4. **Antidegradation Policy.** Federal regulation 40 C.F.R. section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of section 131.12 and State Water Board Resolution 68-16.

5. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

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

7. **Clean Water Act Section 316(b) – Impingement and Entrainment**

   CWA section 316(b) requires that the location, design, construction, and capacity of cooling water intake structures reflect the Best Technology Available for minimizing adverse environmental impacts related to entrainment (drawing organisms into the cooling water system) and impingement (trapping organisms against the intake screens).

   On May 4, 2010 the State Water Board adopted a *Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling* (OTC Policy). The administrative record for the OTC Policy was approved by the Office of Administrative Law (OAL) on September 27, 2010. The OTC Policy became effective on October 1, 2010, and was later amended on July 19, 2011 and June 18, 2013.

   The OTC Policy establishes technology-based standards to implement federal Clean Water Act section 316(b) and reduce the harmful effects associated with cooling water intake structures on marine and estuarine life. The OTC Policy applies to existing power plants that currently have the ability to withdraw water from the State's coastal and estuarine waters using a single-pass system, also known as once-through cooling. Closed-cycle wet cooling has been selected as the Best Technology Available (BTA).

   The Policy requires compliance under two alternatives:

   a. Track 1, where an owner or operator of an existing power plant must reduce the intake flow rate at each unit, at a minimum, to a level commensurate with that which can be attained by a closed-cycle wet cooling system. A minimum 93 percent

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reduction in intake flow rate for each unit is required for Track 1 compliance, compared to the unit's design intake flow rate. The through-screen intake velocity must not exceed 0.5 foot per second. The installation of closed cycle dry cooling systems meets the intent and minimum reduction requirements of this compliance alternative,

b. Track 2, where an owner or operator of an existing power plant demonstrates to the State Water Board's satisfaction that compliance with Track 1 is not feasible, the owner or operator of an existing power plant must reduce impingement mortality and entrainment of marine life for the facility, on a unit-by-unit basis, to a comparable level to that which would be achieved under Track 1, using operational or structural controls, or both.

The Discharger has proposed to come into compliance by following Track 1 and converting the Facility OTC to closed cycled cooling. In 2010, the Discharger had set forth a plan presented to the Los Angeles Department of Water and Power (LADWP) Board of Commissioners and various stakeholders that would achieve full OTC elimination by 2035. This 2035 plan had been explicitly included in the LADWP power system's integrated resource plan, which was extensively reviewed and discussed in numerous public workshops in the Los Angeles area in 2010. At the July 2011 State Water Board hearing it was agreed on a new maximum compliance date of 2029 for LADWP coastal generating stations (Harbor, Haynes and Scattergood). As a result, LADWP will be continuously undertaking power plant replacement and cooling technology installation every single year from now through 2029 for its three coastal generating stations. For the Scattergood Generating Station it was established that compliance would be achieved for Unit 3 by 2015 and Units 1 and 2 by 2024. The Discharger has indicated that this is the most aggressive possible schedule it can undertake to achieve total OTC elimination. To move any faster would threaten reliable service to its customers.

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

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

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

The Facility discharges to Santa Monica Bay. The 2010 State Water Resources Control Board (State Water Board) California 303(d) List includes Santa Monica Bay (Offshore and Nearshore) as impaired waters. The pollutants of concern include DDT (tissue & sediment, centered on Palos Verdes Shelf), PCBs (tissue & sediment), sediment toxicity, debris, and fish consumption advisory.

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Santa Monica Bay Debris TMDL: On November 4, 2010, the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) adopted Resolution R10-010, a TMDL for debris in the nearshore and offshore areas of Santa Monica Bay. The Basin Plan amendment was adopted on May 2, 2011, and became effective on March 20, 2012. Control of debris is addressed through permits issued to the California Department of Transportation, Los Angeles County and the Cities in Los Angeles County (under Los Angeles County storm water MS4 NPDES Permit). This TMDL does not include requirements applicable to the Discharger.

Santa Monica Bay Beach Bacteria TMDL: The Los Angeles Water Board has adopted two TMDLs to reduce bacteria at Santa Monica Bay beaches (including Dockweiler Beach) during dry and wet weather. The Regional Board adopted the Dry Weather and Wet Weather TMDLs on January 24, 2002, and December 12, 2002, respectively (Resolutions 2002-004 and 2002-022). These TMDLs were approved by the State Water Board, State OAL and U.S. EPA Region 9 and became effective on July 15, 2003. Neither TMDL assigns WLAs to the Facility; rather load reductions are addressed through a list of responsible jurisdictions and responsible agencies. The Discharger is not included in this list.

Santa Monica Bay DDTs and PCBs TMDL: Consistent with 40 C.F.R. §§ 130.2 and 130.7, section 303(d) of the CWA and U.S. EPA guidance for developing TMDLs in California (U.S. EPA, 2000a), the U.S. EPA issued the *Santa Monica Bay TMDLs for DDTs and PCBs* on March 26, 2012. The TMDL includes WLAs for DDT and PCBs for point sources, including the Facility. This Order implements the requirements of the Santa Monica Bay TMDL for DDTs and PCBs.

E. Other Plans, Polices and Regulations

1. **Storm Water**. CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges. Pursuant to this requirement, in 1990, U.S. EPA promulgated 40 C.F.R. section 122.26 that established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, in November 1991, the State Water Board issued a statewide general permit, General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities. This permit was amended in September 1992 and reissued on April 17, 1997 in State Water Board Order No. 97-03-DWQ to regulate storm water discharges associated with industrial activity. General NPDES Permit No. CAS000001 was revised on April 1, 2014, which revisions will become effective on July 1, 2015.

   In the February 2015 letter, the Discharger indicated that the Unit 3 Repowering construction has eliminated the storm water discharge point SP-1 that was used to discharge on-site storm water to Grand Avenue through a culvert. Currently, there is no industrial storm water discharging to Grand Avenue.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

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A. Discharge Prohibitions

Discharge Prohibitions in this Board Order are based on the Federal Clean Water Act, Basin Plan, Water Code, State Water Resources Control Board's plans and policies, California Ocean Plan, U.S. Environmental Protection Agency guidance and regulations, and previous permit provisions.

As discussed in Sections IV.B.3 and IV.C.5, the discharge of PCBs is prohibited based on the standards applicable to steam-electric generating facilities contained in 40 C.F.R. § 423.12(b)(2).

B. Technology-Based Effluent Limitations (TBELs)

1. Scope and Authority

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 C.F.R. section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category in 40 C.F.R. part 423**.**

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

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

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

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

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

The CWA requires U.S. EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 C.F.R. section 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the Regional Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

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2. Applicable Technology-Based Effluent Limitations

Pursuant to section 306 (b) (1) of the CWA, U.S. EPA has established standards of performance for the steam electric power point source category, for existing and new sources, at 40 C.F.R part 423. These regulations apply to the Facility as "*an establishment primarily engaged in the generation of electricity for distribution and sale which results primarily from a process utilizing fossil-type fuel…in conjunction with a thermal cycle employing the steam water system as the thermodynamic medium.*" (40 C.F.R § 423.10) Standards of performance for existing facilities (instead of New Source Performance Standards [NSPS]) are applicable to discharges originating from the Facility because its construction was completed or commenced prior to publication of regulations on November 19, 1982, which proposed standards of performance for the industry. The following are applicable technology based-standards of performance (BPT and BAT) applicable to the Facility from the effluent limitation guidelines for existing sources at 40 C.F.R. part 423. The guidelines do not include standards of performance based on BCT.

The table below lists the Facility's discharge points, the existing, and anticipated repowering wastes subject to the ELGs for steam electric power generating point sources.

Table F-10. Plant Waste Streams Subject to Effluent Limitation Guidelines

Discharge Point	Waste Stream	ELG Classification
001	Units 1 & 2 and Unit 3[1] Once-through Cooling Water	Once-through cooling water
	Boiler and air pre-heater wash water (non-chemical metal cleaning wastes)	Metal cleaning Waste
	Cooling tower blowdown	Cooling tower blowdown
	Boiler and evaporator blowdown	Low-volume waste source
	Demineralization/reverse osmosis system waste~~brine~~	Low-volume waste source
	Condensate polisher regeneration	Low-volume waste source
	Lab drains	Low-volume waste source
	Floor drains	Low-volume waste source
	Equipment drains	Low-volume waste source
	Heat Recovery Steam Generator (HRSG) blowdown (After completion of Unit 3 repowering project)	Low-volume waste source
	Combustion Turbine Generator (CTG) inlet air evaporative cooling (After completion of Unit 3 repowering project)	Low volume waste source
	Wet surface air cooler (After completion of Unit 3 repowering project)	Low volume waste source
	Miscellaneous low volume wastes	Low volume waste source
	Storm water runoff	Not subject to ELG

1. Unit 3 will be replaced by new Units 4, 5, 6, and 7. Construction of the new units is expected to be complete by December 31, 2015. The new Units utilize dry cooling, thus eliminating once-through cooling water from Unit 3 as of December 31, 2015. Once-through cooling water from Units 1 and 2 will continue until repowering is complete (by 2024).

There are no BCT requirements in 40 C.F.R. section 423.14. ELGs at 40 C.F.R. part 423 contains standards applicable to the following process waters: low volume wastes, fly ash transport water, bottom ash transport water, metal cleaning wastes (both chemical and non-chemical), cooling tower blowdown, and discharges of coal

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pile runoff. Discharges from the Facility covered under 40 C.F.R. part 423 include low volume wastes, metal cleaning wastes, cooling tower blowdown and once-through cooling water.

Order 00-083 included limitations for chemical metal cleaning wastes which have not been included in this Order. As discussed in Section II.A of the Fact Sheet, chemical metal cleaning wastes are no longer discharged from the Facility.

a. Standards of Performance Based on BPT

Applicable effluent limitations established on the basis of BPT are summarized as follows:

i. The pH of all discharges, except once-through cooling water, shall be within the range of 6.0 – 9.0 standard units [40 C.F.R. § 423.12 (b) (1)].

ii. There shall be no discharge of polychlorinated biphenyl (PCB) compounds such as those commonly used for transformer fluid [40 C.F.R. § 423.12 (b) (2)].

iii. Low volume wastes are defined as those non-cooling wastewater sources for which specific limitations are not established by the effluent limitation guidelines at 40 C.F.R part 423. The quantity of pollutants discharged from low volume waste sources shall not exceed the quantity determined by multiplying the flow of the low volume waste sources times the concentration listed in the following table [40 C.F.R § 423.12 (b) (3)]:

Table F-11. BPT Effluent Limitations for Low Volume Wastes

Parameter	Units	BPT Effluent Limitations	
		30-Day Average Concentration	Maximum Daily
TSS	mg/L	30.0	100.0
Oil and Grease	mg/L	15.0	20.0

iv. Once-through cooling water is defined as water passed through the main cooling condensers in one or two passes for the purpose of removing waste heat. The quantity of pollutants discharged in once-through cooling water shall not exceed the quantity determined by multiplying the flow of once-through cooling water sources times the concentration listed in the following table: [40 C.F.R. § 423.12 (b) (6)]

Table F-12. BPT Effluent Limitations for Once-Through Cooling Water

Parameter	Units	BPT Effluent Limitations	
		Average Concentration	Maximum Concentration
Free Available Chlorine	mg/L	0.2[1]	0.5

1. Applied as an average of analyses over a single period of chlorine release which does not exceed two hours.

v. The term blowdown means the minimum discharge of recirculating water for the purpose of discharging materials contained in the water, the further buildup of which would cause concentration in amounts exceeding limits established by best engineering practices. The quantity of pollutants discharged in cooling tower blowdown shall not exceed the quantity determined by multiplying the

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flow of cooling tower blowdown sources times the concentration listed in the following table: [40 C.F.R. § 423.12 (b) (7)]

Table F-13. BPT Limitations for Cooling Tower Blowdown

Parameter	Units	Effluent Limitations	
		Average Concentration	Maximum Concentration
Free Available Chlorine	mg/L	0.2[1]	0.5

1. The average concentration means the average of analyses made over the period of a chlorine discharge event.

vi. Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Los Angeles Water Board that the units in a particular location cannot operate at or below this level or chlorination [40 C.F.R. § 423.12 (b) (8)].

b. Standards of Performance Based on BAT

i. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid [40 C.F.R § 423.13 (a)].

ii. For any plant with a total rated electric generating capacity of 25 or more megawatts, the quantity of pollutants discharged in once-through cooling water from each discharge point shall not exceed the quantity determined by multiplying the flow of once-through cooling water from each discharge point times the concentration listed in the following table [40 C.F.R. § 423.13 (b) (1)]:

Table F-14. BAT Effluent Limitations for Once-Through Cooling Water

Parameter	Units	BAT Effluent Limitations
		Maximum Concentration
Total Residual Chlorine	mg/L	0.20

iii. Total residual chlorine may not be discharged from any single generating unit for more than two hours per day unless the Discharger demonstrates to the permitting authority that discharge for more than two hours per day is required for macroinvertebrate control. Simultaneous multi-unit chlorination is permitted. [40 C.F.R. § 423.13 (b) (2)].

iv. The quantity of pollutants discharged in cooling tower blowdown shall not exceed the quantity determined by multiplying the flow of cooling tower blowdown times the concentration listed below: [40 C.F.R. § 423.13 (d) (1)].

Table F-15. BAT Effluent Limitations for Cooling Tower Blowdown

Parameter	Units	BAT Effluent Limitations			
		30-Day Average Concentration	Maximum Daily	Average Concentration	Maximum Concentration
Free Available Chlorine	mg/L	--		0.2[1]	0.5

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Parameter	Units	BAT Effluent Limitations			
		30-Day Average Concentration	Maximum Daily	Average Concentration	Maximum Concentration
The 126 priority pollutants contained in chemicals added for cooling tower maintenance, except:	mg/L	[1]	[1]	--	--
Chromium, Total Recoverable	mg/L	0.2	0.2	--	--
Zinc, Total Recoverable	mg/L	1.0	1.0	--	--

1. The average concentration means the average of analyses made over the period of a chlorine discharge event.
2. No detectable amount.

v. Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the Regional Administrator or State, if the State has NPDES permit issuing authority, that the units in a particular location cannot operate at or below this level of chlorination [40 C.F.R. § 423.13 (d) (2)].

vi. At the permitting authority's discretion, compliance with the limitations for the 126 priority pollutants in paragraph (d)(1) of this section may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 C.F.R section 136 [40 C.F.R. § 423.13 (d) (3)].

c. Standards of Performance for Metal Cleaning Wastes

Limitations for effluent resulting from metal cleaning wastes, which includes both chemical and non-chemical metal cleaning wastes are addressed in effluent guidelines at 40 C.F.R. part 423. Since the adoption of Order 00-083, the discharge of chemical metal cleaning wastes from the Facility to the receiving water has ceased. Instead, all chemical metal cleaning wastes are collected and trucked off-site to a wastewater treatment plant for off-site treatment and disposal. Chemical metal cleaning wastes are no longer considered a component of the discharge and the discharge of these wastes from the Facility to the receiving water is no longer permitted under this Order. Consequently, effluent limitations for chemical metal cleaning wastes contained in Order 00-083 have not been retained in this Order.

In 1974, U.S. EPA originally developed BPT limitations for metal cleaning wastes without specific differentiation of waste originating from water cleaning operations versus metal cleaning using chemical agents. Furthermore, there was ambiguity in distinguishing certain non-chemical metal cleaning wastes from low volume wastes. To address the ambiguity, U.S. EPA provided permitting guidance in 1975, referred to as the Jordan Memorandum[1], which advised “all water washing operations are ‘low volume’ while any discharge from an operation involving chemical cleaning

[1] Memorandum from J, William Jordan, Chemical Engineer, U.S. EPA Permit Assistance and Evaluation Division, to Bruce P, Smith, Biologist, Enforcement Division, Region III, Re: Response to Request for Interpretation of the Chemical Effluent Limitation Guidelines for the Steam Electric Power Generation Industry.

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should be included in the metal cleaning category." U.S. EPA revisited this issue in 1980 when proposing new BAT regulations for the Steam Electric category. As explained in the preamble to the 1982 final regulations, EPA rejected the position of the Jordan memorandum, but conceded that with respect to non-chemical metal cleaning wastes, there are potential differences for pollutant concentrations in waste streams from coal-fired versus oil-fired operations and that the costs to comply with the existing BPT limitations would create an economic burden.

In the 1982 final regulations, U.S. EPA promulgated BAT limitations for chemical metal cleaning wastes, but because of a lack of data, reserved BAT requirements for non-chemical metal cleaning wastes. Furthermore, U.S. EPA allowed for non-chemical metal cleaning wastes, that did not previously have limitations for iron and copper, to continue to be permitted using BPT ELGs for low volume wastes [See 47 FR 52297 (November 19, 1982)].

The existing Order includes effluent limitations for total suspended solids and oil and grease that reflect the identical BPT limitations for low volume wastes and metal cleaning wastes. In following guidance provided in the Jordan memorandum, as currently allowed by U.S. EPA, no new BPT limitations (40 C.F.R § 423.12 (b)(5) for copper and zinc are included in this Order for non-chemical metal cleaning wastes (Boiler and air pre-heater wash water).

d. Total Residual Chlorine Variance

On August 15 1983, the Discharger submitted a request to U.S. EPA for a variance under Section 301(g) of the CWA from BAT requirements for TRC. In September 1984, the Discharger also requested an Ocean Plan exception for the TRC effluent limitation based on the 1983 Ocean Plan objectives. In July 1988, the State Board adopted Resolution 88-80 that granted an exception from the 1983 Ocean Plan for TRC limitations. The Los Angeles Water Board and the State Water Board approved the variance request and forwarded it to the U.S. EPA in August 1988 for concurrence.

On May 13, 1998, the U.S. EPA approved the Discharger's request for a variance from BAT for TRC pursuant to Section 301(g) of the CWA with the following conditions:

i. The effluent from Discharge Point 001 must meet an instantaneous maximum daily effluent limitation (formerly referred to as proposed modified effluent limitation [PMEL]) of 0.436 mg/L (instantaneous maximum) based on daily sampling at Discharge Point 001 during periods of chlorination.

ii. The effluent from Discharge Point 001 must meet a chronic toxicity limit of 10.7 using state-approved test species and methods as specified in the NPDES permit. The chronic toxicity tests must be representative of the actual discharge conditions (at a minimum) or of the alternate effluent limitation of 0.436 mg/L. This means that, at a minimum, the effluent samples must be chlorinated in the laboratory to levels consistent with the maximum TRC effluent concentration measured during the previous 3 months' chlorination events. Alternatively, the samples may be chlorinated to the alternate effluent limitation concentration (unless the maximum TRC concentration from the previous three months exceeds the alternate effluent concentration). This requirement to chlorinate samples in the laboratory applies only if the recorded effluent chlorine concentrations exceed the BAT limit of 0.2 mg/L during the previous 3 months.

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iii. In the event effluent chronic toxicity limitations are exceeded at Discharge Point 001, the Discharger shall increase the monitoring frequency at the subject outfalls to monthly in accordance with the NPDES permit. If the chronic toxicity limitation is exceeded again during the accelerated monitoring period, the Discharger shall conduct a toxicity reduction evaluation (TRE). The TRE shall be conducted in accordance with U.S. EPA's most current TRE/toxicity identification evaluation (TIE) manuals.

iv. The variance can be reviewed and revised by U.S. EPA at any time if subsequent information indicates that the alternate effluent limitation will not result in compliance with all 301(g) criteria. This information includes, but is not limited to, subsequent chronic toxicity tests, receiving water monitoring data, and TIE/TRE findings indicating that the discharge of TRC at concentrations greater than the BAT limit of 0.2 mg/L results in an exceedance of the toxicity limitation.

In 1987, in coordination with Southern California Edison, LADWP conducted a study on the concentrations of chlorine measured in the receiving water during a chlorination event at the condensers. The study showed that chlorine was not detected outside the zone of initial dilution during a chlorination event.

The Discharger conducted a study on May 18, 1995 to determine the time during the chlorination cycle that the peak residual chlorine concentration occurs in the ocean discharge to ensure that compliance monitoring samples for TRC are collected at the time of highest chlorine level in the combined effluent. The study indicated that the maximum levels of chlorine in the effluent occur about 34 minutes from the start of chlorination. The study confirmed that the Discharger's existing sampling procedures were appropriate.

Monitoring data collected during the period between January 2009 and December 2014 indicates no exceedance of 0.436 mg/L of TRC occurred with a maximum TRC of 0.430 mg/L. During the same period, there were no exceedances of the chronic toxicity effluent limitation of 10.7 TUc in the discharge samples chlorinated to levels specified in the permit. In fact, these chronic toxicity results consistently remained below 4 TUc.

Effluent limitations for chlorine based on the 301(g) variance and Resolution 88-80 in Order No. 00-083 have been retained in this Order:

Table F-16. Chlorine Limitations Based on Section 301(g) Variance

Parameter	Units	Effluent Limitations
		Instantaneous Maximum
Total Residual Chlorine[1]	mg/L	0.436[2]

1. If other oxidants are used, this shall be the total of all oxidants reported as residual chlorine.
2. This limit is applicable to the sampling during periods of chlorination. The condenser halves (two in a single unit) are chlorinated for up to 40 minutes per chlorination cycle, and there is a maximum of threechlorination cycles per 24-hour period for each unit. For chlorine discharges of up to 40 minutes during a chlorination cycle, the instantaneous maximum limit is 0.436 mg/l. For chlorine discharges exceeding 40 minutes during a chlorination cycle, the maximum total residual chlorine limitation shall be the BAT limitation of 0.2 mg/L.

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3. Summary of Technology-based Effluent Limitations

The Facility discharges effluent to the Pacific Ocean via Discharge Point 001. The total flow volume into the Pacific Ocean through Discharge Point 001 is a combination of once-through cooling water and in-plant waste that consist of low volume waste, non-chemical metal cleaning waste, and cooling tower blowdown as defined in 40 C.F.R part 423.

40 C.F.R sections 423.12(b)(12) and 423.13(h) state that in the event that waste streams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property shall not exceed the limitations specified. In order to ensure that the discharge from each individual waste stream is in compliance with 40 C.F.R part 423, effluent limitations have been established at the point of discharge of each waste stream before commingling with other waste streams, with the exception of storm water runoff. The Facility includes settling basins that receive both low volume wastes and storm water runoff. If the settling basins have inadequate capacity to provide treatment during wet weather conditions, then high flows and velocities could wash out previously settled pollutants and prevent adequate sedimentation during or after the wet weather event. The Discharger is replacing the existing settling basins with permanent settling basins (A, B, and C).

In order to determine whether effluent limitations based on ELGs for low volume waste would ensure that minimum treatment performance is obtained during wet weather, the size of the settling basins must be adequate to treat low volume wastes and storm water runoff ~~from areas below elevation 34~~. Based on data provided by the Discharger, the maximum flow of low volume wastes ~~and storm water~~ into the settling basin ~~after December 31, 2015~~ is 0.442~~272~~ MGD. The capacity of the new settling tanks is a total of 1.0 million gallons. The settling basins therefore appear to have adequate capacity for the estimated 0.025 MGD of storm water runoff from surrounding areas. ~~below elevation 34. As follows, dry-weather limitations are likely to ensure that low volume wastes in the settling basin are treated to the level required by BPT.~~

As listed in Tables F-13 through F-16, 40 C.F.R. part 423 prescribed ELGs in the once-through cooling water waste stream and cooling tower blowdown for total residual chlorine as a maximum concentration of 0.2 mg/L (as listed in Table F-15), and for free available chlorine as an average concentration of 0.2 mg/L and a maximum concentration of 0.5 mg/L (as listed in Tables F-13, F-14 and F-16). Order No. 00-083 implemented the total residual chlorine ELG (maximum concentration) as a daily maximum limitation and the free available chlorine ELGs (average concentration) as a monthly average in the once-through cooling water waste stream. However, 40 C.F.R. section 423.11 defines average concentration as it relates to free available chlorine discharge to be "the average of analyses made over a single period of chlorine release which does not exceed two hours"; it did not provide a definition of the term "maximum concentration". Furthermore, EPA published a document *Technical Development Document for the Proposed Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category* (EPA-821-R-13-002) in 2013, which proposes revisions to the ELGs for the steam electric power generation point source category based on a review of the significant changes in treatment technologies for the industry over the last three decades; Table 1-1 of this document provides a summary of the current steam electric ELGs as codified at 40 C.F.R. part 423, and references the maximum concentration of 0.2 mg/L for total residual chlorine as an instantaneous maximum limitation. The maximum concentration of 0.5 mg/L and the average concentration of 0.2 mg/L for free available chlorine are referenced as an instantaneous

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maximum and average (over a single chlorine release period) limitation. Therefore, to be consistent with 40 C.F.R. section 423.11 and the 2013 EPA document (EPA -821-R-13-002), this Order is applying the ELGs in the once-through cooling water waste stream for total residual chlorine as an instantaneous maximum effluent limitation of 0.2 mg/L, and for free available chlorine as an instantaneous maximum effluent limitation of 0.5 mg/L and an average concentration effluent limitation of 0.2 mg/L during the chlorine release period (discharge is limited to 2 hrs/day/unit and simultaneous discharge of chlorine from multiple units is prohibited). Limitations for total residual chlorine and free available chlorine based on ELGs applicable to the once-through cooling water are applied directly as limitations in the combined effluent to Discharge Point 001 with consideration of structural constraints and consistent with Order No. 00-083. The PMEL of 0.436 mg/L for total residual chlorine as authorized by the 301(g) variance approval replaces the ELG concentration of 0.2 mg/L and is applied as an instantaneous maximum limitation for the combined final effluent at Discharge Point 001.

Effluent limitations in 40 C.F.R. section 423.12(b)(11) and section 423.13(g) specify that, at the permitting authority's discretion, effluent limitations may be expressed as a concentration-based limitation instead of the mass-based limitations otherwise specified. Technology-based effluent limitations in this Order are expressed both as concentration and mass based limitations except for the instantaneous maximum limitation and the average concentration limitation for total residual and free available chlorine (which will be expressed only in concentration based limits.)

This Order establishes the following technology-based effluent limitations

a. Discharge Point 001

i. **Flow.** This Order limits the discharge to 226 MGD after December 31, 2015, which includes the total cooling water flow and in-plant waste streams and is less than the permitted flow of 496 MGD in the previous Order.

ii. **PCBs.** There shall be no discharge of PCBs. This limitation is based on 40 C.F.R. sections 423.12(b)(2) and 423.13(a).

iii. The Discharger shall maintain compliance with the effluent limitations contained in the following table. The limitation for total residual chlorine is based on the variance from BAT requirements for chlorine approved by U.S. EPA pursuant to Section 301(g) of the CWA. The limitation for free available chlorine is based on 40 C.F.R. section 423.12 (b) (6).

Table F-17. Effluent Limitations at Discharge Point 001 (Monitoring Location EFF-001)

Parameter	Units	Effluent Limitations	
		Average Concentration	Instantaneous Maximum
Total Residual Chlorine[1]	mg/L	--	0.436[2]
Free Available Chlorine	mg/L	0.2[3]	0.5

1. If other oxidants are used, this shall be the total of all oxidants reported as residual chlorine.
2. This limit is applicable to the sampling during periods of chlorination. The condenser halves (two in a single unit) are chlorinated for up to 40 minutes per chlorination cycle, and there is a maximum of three chlorination cycles per 24-hour period for each unit. For chlorine discharges of up to 40 minutes during a chlorination cycle, the instantaneous maximum limit is 0.436 mg/l. For chlorine discharges exceeding 40 minutes during a chlorination cycle, the maximum total residual chlorine limitation shall be the BAT limitation of 0.2 mg/L.

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3. Applied as an average of analyses over a single period of chlorine release which does not exceed two hours.

b. Low Volume Wastes (Monitoring Locations INT-001A and INT-001B)

i. **pH.** The pH shall be within the range of 6.0 -9.0. This limitation is based on 40 C.F.R. section 423.12(b)(1).

ii. **PCBs.** There shall be no discharge of PCBs. This limitation is based on 40 C.F.R. sections 423.12(b)(2) and 423.13(a).

iii. The quantity of pollutants discharged from low volume waste sources shall not exceed the quantity determined by multiplying the flow of the low volume waste sources times the concentration listed in the following table. These limitations are based on 40 C.F.R. section 423.12(b)(3).

Table F-18. Effluent Limitations for Low Volume Wastes[1] (Monitoring Locations INT-001A and INT-001B)

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
TSS	mg/L	30.0	100.0	--	--
Oil and Grease	mg/L	15.0	20.0	--	--

1. Limitations also apply to non-chemical metal cleaning wastes in this Order. As discussed in section IV.B.3 of this fact sheet, U.S. EPA allows for non-chemical metal cleaning wastes, that did not previously have limitations for iron and copper, to continue to be permitted using BPT ELGs for low volume wastes.

c. Cooling Tower Blowdown (Monitoring Location INT-001C)

i. **pH.** The pH shall be within the range of 6.0 -9.0. This limitation is based on 40 C.F.R. section 423.12(b)(1).

ii. **PCBs.** There shall be no discharge of PCBs. This limitation is based on 40 C.F.R. sections 423.12(b)(2) and 423.13(a).

iii. The quantity of pollutants discharged from cooling tower blowdown shall not exceed the quantity determined by multiplying the flow of the cooling tower blowdown sources times the concentration listed in the following table. These limitations are based on BPT as per 40 C.F.R. section 423.12(b)(7) and section 423.13(d)(1).

Table F-19.Effluent Limitations for Cooling Tower Blowdown (Monitoring Location INT-001C)

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Average Concentration	Instantaneous Maximum
Free Available Chlorine	mg/L	--		0.2[1]	0.5
126 Priority Pollutants contained in chemicals added for cooling tower maintenance, except:	µg/L	--	[2, 3]	--	--

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Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Average Concentration	Instantaneous Maximum
Chromium, Total Recoverable	mg/L	0.2	0.2	--	--
Zinc, Total Recoverable	mg/L	1.0	1.0	--	--

1. The average concentration means the average of analyses made over the period of a chlorine discharge event.
2. No detectable amount.
3. Instead of the monitoring, compliance with the limitations for the 126 priority pollutants in this section may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 C.F.R. part 136.

C. Water Quality-Based Effluent Limitations (WQBEL's)

1. Scope and Authority

CWA Section 301(b) and 40 C.F.R. section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

Section 122.44(d)(1)(i) of 40 C.F.R. requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using: (1) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBEL's 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 Ocean Plan.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan and Ocean Plan designate beneficial uses, establish water quality objectives, and contain implementation programs and policies to achieve those objectives for all waters.

a. Basin Plan. The beneficial uses specified in the Basin Plan applicable to the Pacific Ocean are summarized in section III.C.1 of this Fact Sheet. The Basin Plan incorporates by reference the requirements of the Ocean Plan whereby it states, "*The State Board's Water Quality Control Plan for Ocean Waters of California (Ocean Plan), and the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California" (Thermal Plan), and any revisions thereto shall also apply to all ocean waters of the Region.*"

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b. Ocean Plan. As noted in Section III.C.3 of this Fact Sheet, the State Water Board adopted an Ocean 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 Ocean Plan. The beneficial uses applicable to the Pacific Ocean are summarized in Section III.C.3 of this Fact Sheet. The Ocean Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

Table 1 of the Ocean Plan (2012)(also known as Table B in previous editions of the Ocean Plan) includes the following water quality objectives for toxic pollutants and whole effluent toxicity:

i. 6-month median, daily maximum, and instantaneous maximum objectives for 21 chemicals and chemical characteristics, including total residual chlorine and chronic toxicity, for the protection of marine aquatic life.

ii. 30-day average objectives for 20 non-carcinogenic chemicals for the protection of human health.

iii. 30-day average objectives for 42 carcinogenic chemicals for the protection of human health.

iv. Daily maximum objectives for acute and chronic toxicity

c. Thermal Plan. The State Water Board adopted the Thermal Plan on January 7, 1971. The Thermal Plan includes narrative water quality objectives for discharges of elevated temperature wastes for existing discharges (those discharges at least under construction prior to the adoption of the Plan) and for new discharges. A revised Thermal Plan was adopted by the State Board on September 18, 1975. The Facility, as presently operating, is considered an existing discharge per definition ten of the Thermal Plan.

Water Quality Objective 3.A.1 is applicable to existing thermal discharges to the coastal waters of California:

"Elevated temperature wastes shall comply with limitations necessary to assure protection of the beneficial uses and areas of special biological significance."

3. Determining the Need for WQBEL's

a. Reasonable Potential Methodology

The need for effluent limitations based on water quality objectives in Table 1 of the Ocean Plan was evaluated in accordance with section 122.44(d) and guidance for statistically determining the "reasonable potential" for a discharged pollutant to exceed an objective, as outlined in the California Ocean Plan Reasonable Potential Analysis (RPA) Amendment that was adopted by the State Water Board on April 21, 2005. The statistical approach combines knowledge of effluent variability (as estimated by a coefficient of variation) with the uncertainty due to a limited amount of effluent data to estimate a maximum effluent value at a high level of confidence. This estimated maximum effluent value is based on a lognormal distribution of daily effluent values. Projected receiving water values (based on the estimated maximum effluent value or the reported maximum effluent value and minimum probable initial dilution), can then be compared to the appropriate objective to determine the potential for an exceedance of that objective and the need for an effluent limitation.

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The water quality objectives contained in the Ocean Plan for pollutants for which detected effluent data exist or were previously limited in Order No. 00-083 are summarized in the table below.

Table F-20. Ocean Plan Water Quality Objectives

Parameter	6-Month Median (µg/L)	Daily Maximum (µg/L)	Instantaneous Maximum (µg/L)	30-Day Average (µg/L)
Arsenic	8	32	80	--
Cadmium	1	4	10	--
Chromium VI	2	8	20	--
Copper	3	12	30	--
Lead	2	8	20	--
Mercury	0.04	0.16	0.4	--
Nickel	5	20	50	--
Selenium	15	60	150	--
Silver	0.7	2.8	7	--
Zinc	20	80	200	--
Cyanide	1	4	10	--
Total Residual Chlorine	2	8	60	--
Chronic Toxicity	--	1	--	--
Antimony	--	--	--	1,200
Chromium (III)	--	--	--	190,000
Thallium	--	--	--	2
Beryllium	--	--	--	0.033
Bis (2-ethylhexyl) Phthalate	--	--	--	3.5
N-Nitrosodimethylamine	--	--	--	7.3
Radioactivity	Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30253 of the California Code of Regulations. Reference to Section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.			

According to the Ocean Plan (2012), the reasonable potential analysis (RPA) can yield three endpoints:

Endpoint 1: An effluent limitation is required and monitoring is required;

Endpoint 2: An effluent limitation is not required and the Los Angeles Water Board may require monitoring; and

Endpoint 3: The RPA is inconclusive, monitoring is required, and an existing effluent limitation may be retained or a permit reopener clause may be included to allow inclusion of an effluent limitation if future monitoring warrants the inclusion.

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b. Minimum Initial Dilution

The implementation provisions for Table 1 in Section III.C of the Ocean Plan specify that the minimum initial dilution is the lowest average initial dilution within any single month of the year. Dilution estimates are to be based on observed waste flow characteristics, observed receiving water density structure, and the assumption that no currents of sufficient strength to influence the initial dilution process flow across the discharge structure. Before establishing a dilution credit for a discharge, it must first be determined if, and how much, receiving water is available to dilute the discharge.

As discussed in Section II.B of the Fact Sheet, Order 00-083 established the minimum initial dilution factor (Dm) for discharges from the Facility at Discharge Point 001 to be 9.7 to 1 for all parameters, except total residual chlorine which was granted a dilution of 10.7 to 1. The Discharger has indicated that no additions or modifications to the Facility or the outfall at Discharge Point 001 have been proposed that would lessen the previously determined dilution characteristics. The repowering project, which eliminates once-through cooling water, may result in the change of the minimum initial dilution factor. The Discharger is required to conduct a dilution study to determine the appropriate minimum dilution factor for the decreased discharge after December 31, 2015. The dilution ratios established in Order 00-083 are protective of current discharge conditions and will be retained in this Order and applied to the RPA and WQBEL's established herein.

c. RPA for Ocean Plan Table 1 Pollutants

Effluent data submitted to the Los Angeles Water Board for the period from January 2009 through December 2014 for Discharge Point 001 was considered in the RPA. The dilution ratios applicable to the ocean outfall (10.7 for total residual chlorine and 9.7:1 for all other parameters) were considered to evaluate reasonable potential in accordance with the procedures contained in the Ocean Plan. Based on the evaluation using the *RPcalc 2.2* software tool, which was developed by the State Water Board for the purpose of conducting RPAs of ocean discharges, the discharge demonstrates reasonable potential to cause or contribute to an excursion above an Ocean Plan Table 1 water quality objective for bis (2-ethylhexyl) phthalate.

The Ocean Plan Appendix VI procedures for determining reasonable potential include Step 13 whereby information other than effluent data is considered in determining reasonable potential. The Facility discharges large volumes of chlorinated effluent which poses risk of toxicity to aquatic organisms. For this reason, the discharge has been determined to demonstrate reasonable potential for total residual chlorine and chronic toxicity. As discussed in Sections IV.B.2.d and IV.C.5 of the Fact Sheet, the Discharger has been granted an exception to the Ocean Plan under State Water Board Resolution 88-80 and is instead subject to alternate effluent limitations for total residual chlorine. As stated in the Ocean Plan exception (Resolution 88-80) "the alternative effluent limitation should result in meeting the numeric chlorine receiving water objectives at the edge of the zone of initial dilution allowed by the Ocean Plan".

Based on the evaluation using the *RPcalc 2.2* software tool the final effluent discharge does not demonstrate reasonable potential for sixty (60) Table 1 parameters. Order 00-083 included WQBEL's for arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, silver, and zinc. As these parameters resulted in Endpoint 2, the effluent limitations are removed in this Order.

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For many of the Table 1 parameters, the sampling events yielded non-detects which resulted in Endpoint 3 using the *RPcalc 2.2* software tool. Endpoint 3 means the RPA was inconclusive. The Ocean Plan indicates monitoring for the pollutant is required and also indicates any existing effluent limitation for a pollutant shall be retained in the renewed permit. The existing permit, Order 00-083 does not include effluent limits for any of the Endpoint 3 parameters. Therefore, this Order includes monitoring requirements instead of effluent limitations for Endpoint 3 parameters.

The RPA results are provided in the Table below.

Table F-21. RPA Results Summary Table F-19. RPA Results Summary

Pollutant	Units	n[1]	MEC[2,3]	Most Stringent Criteria	Background	RPA Endpoint[4]
Objectives for Protection of Marine Aquatic Life						
Arsenic, Total Recoverable	µg/L	50	15	8	3	Endpoint 2
Cadmium, Total Recoverable	µg/L	49	0.12	1	0	Endpoint 2
Chromium (Hexavalent), Total Recoverable	µg/L	46	0.71	2	0	Endpoint 2
Copper, Total Recoverable	µg/L	50	3.5	3	2	Endpoint 2
Lead, Total Recoverable	µg/L	48	0.74	2	0	Endpoint 2
Mercury	µg/L	46	0.09	0.04	0.0005	Endpoint 2
Nickel, Total Recoverable	µg/L	48	2	5	0	Endpoint 2
Selenium, Total Recoverable	µg/L	47	102	15	0	Endpoint 2
Silver, Total Recoverable	µg/L	47	0.68	0.7	0.16	Endpoint 2
Zinc, Total Recoverable	µg/L	50	12	20	8	Endpoint 2
Cyanide	µg/L	18	6	1	0	Endpoint 2
Total Chlorine Residual	µg/L	1856	430	2	0	[5]
Ammonia	µg/L	9	300	600	0	Endpoint 3
Acute Toxicity	TUa	--	--	0.3	0	[6]
Chronic Toxicity	TUc	50	4.0	1	0	[7]
Phenolic Compounds (non-chlorinated)[8]	µg/L	17	<0.16	30	0	Endpoint 2
Chlorinated Phenolics[9]	µg/L	16	<0.19	1	0	Endpoint 2
Endosulfan	µg/L	18	<0.004	0.009	0	Endpoint 2
Endrin	µg/L	18	<0.0049	0.002	0	Endpoint 2
HCH[10]	µg/L	18	<0.004	0.004	0	Endpoint 2
Objectives for Protection of Human Health – Non-Carcinogens						
Acrolein	µg/L	18	<0.25	220	0	Endpoint 2
Antimony	µg/L	51	0.94	1200	0	Endpoint 2

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Pollutant	Units	n[1]	MEC[2,3]	Most Stringent Criteria	Background	RPA Endpoint[4]
Bis (2-chloroethoxy) methane	µg/L	18	<0.25	4.4	0	Endpoint 2
Bis (2-chloroisopropyl) ether	µg/L	18	<0.38	1200	0	Endpoint 2
Chlorobenzene	µg/L	18	<0.18	570	0	Endpoint 2
Chromium (III)	µg/L	43	4.2	190,000	0	Endpoint 2
Di-n-butyl-phthalate	µg/L	18	0.31	3,500	0	Endpoint 2
Dichlorobenzenes	µg/L	18	<0.53	5,100	0	Endpoint 2
Diethyl phthalate	µg/L	18	0.17	33,000	0	Endpoint 2
Dimethyl phthalate	µg/L	18	<0.18	820,000	0	Endpoint 2
4,6-dinitro-2-methylphenol	µg/L	16	<1.7	220	0	Endpoint 2
2,4-dinitrophenol	µg/L	17	<1.6	4.0	0	Endpoint 3
Ethylbenzene	µg/L	18	<0.2	4,100	0	Endpoint 2
Fluoranthene	µg/L	18	<0.22	15	0	Endpoint 2
Hexachlorocyclopentadiene	µg/L	18	<1.5	58	0	Endpoint 2
Nitrobenzene	µg/L	18	<0.36	4.9	0	Endpoint 2
Thallium	µg/L	46	0.31	2	0	Endpoint 2
Toluene	µg/L	18	<0.13	85,000	0	Endpoint 2
Tributyltin	µg/L	0[11]	--	0.0014	0	--
1,1,1-trichloroethane	µg/L	18	<0.09	540,000	0	Endpoint 2
Objectives for Protection of Human Health – Carcinogens						
Acrylonitrile	µg/L	18	<0.13	0.10	0	Endpoint 2
Aldrin	µg/L	18	<0.002	0.000022	0	Endpoint 3
Benzene	µg/L	18	<0.12	5.9	0	Endpoint 2
Benzidine	µg/L	18	<3.7	0.000069	0	Endpoint 3
Beryllium	µg/L	46	0.1	0.033	0	Endpoint 2
Bis (2-chloroethyl) ether	µg/L	18	<0.27	0.045	0	Endpoint 3
Bis (2-ethylhexyl) phthalate	µg/L	18	660	3.5	0	Endpoint 1
Carbon tetrachloride	µg/L	18	<0.09	0.90	0	Endpoint 2
Chlordane	µg/L	18	<0.0099	0.000023	0	Endpoint 3
Chlorodibromomethane	µg/L	18	<0.11	8.6	0	Endpoint 2
Chloroform	µg/L	18	<0.1	130	0	Endpoint 2
DDT[12]	µg/L	18	<0.004	0.00017	0	Endpoint 3
1,4-dichlorobenzene	µg/L	18	<0.55	18	0	Endpoint 2

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Pollutant	Units	n[1]	MEC[2,3]	Most Stringent Criteria	Background	RPA Endpoint[4]
3,3'-dichlorobenzidine	µg/L	18	<1.2	0.0081	0	Endpoint 3
1,2-dichloroethane	µg/L	18	<0.13	28	0	Endpoint 2
1,1-dichloroethylene	µg/L	18	<0.11	0.9	0	Endpoint 2
Dichlorobromomethane	µg/L	18	<0.1	6.2	0	Endpoint 2
Dichloromethane	µg/L	18	<0.18	450	0	Endpoint 2
1,3-dichloropropene	µg/L	18	<0.08	8.9	0	Endpoint 2
Dieldrin	µg/L	18	<0.0049	0.00004	0	Endpoint 3
2,4-dinitrotoluene	µg/L	18	<0.18	2.6	0	Endpoint 2
1,2-diphenylhydrazine	µg/L	18	<0.25	0.16	0	Endpoint 2
Halomethanes[13]	µg/L	18	8.91	130	0	Endpoint 2
Heptachlor	µg/L	18	<0.0049	0.00005	0	Endpoint 3
Heptachlor epoxide	µg/L	18	<0.002	0.00002	0	Endpoint 3
Hexachlorobenzene	µg/L	6	<0.49	0.00021	0	Endpoint 3
Hexachlorobutadiene	µg/L	18	<0.47	14	0	Endpoint 2
Hexachloroethane	µg/L	17	<0.52	2.5	0	Endpoint 2
Isophorone	µg/L	18	<0.21	730	0	Endpoint 2
N-nitrosodimethylamine	µg/L	18	0.0017	7.3	0	Endpoint 2
N-nitrosodi-N-propylamine	µg/L	18	<0.26	0.38	0	Endpoint 3
N-nitrosodiphenylamine	µg/L	18	<0.19	2.5	0	Endpoint 2
PAHs[14]	µg/L	18	<0.08	0.0088	0	Endpoint 3
PCBs[15]	µg/L	18	<0.21	0.000019	0	Endpoint 3
TCDD equivalents[16]	µg/L	18	$<3.12 \times 10^{-7}$	3.9×10^{-9}	0	Endpoint 3
1,1,2,2-tetrachloroethane	µg/L	18	<0.1	2.3	0	Endpoint 2
Tetrachloroethylene	µg/L	18	<0.1	2.0	0	Endpoint 2
Toxaphene	µg/L	18	<0.21	0.00021	0	Endpoint 3
Trichloroethylene	µg/L	18	<0.16	27	0	Endpoint 2
1,1,2-trichloroethane	µg/L	18	<0.09	9.4	0	Endpoint 2
2,4,6-trichlorophenol	µg/L	17	<0.22	0.29	0	Endpoint 2
Vinyl chloride	µg/L	18	<0.11	36	0	Endpoint 2

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1. Number of data points available for the RPA.
2. If there is a detected value, the highest reported value is summarized in the table. If there are no detected values, the lowest MDL is summarized in the table.
3. Note that the reported MEC does not account for dilution. The RPA does account for dilution; therefore it is possible for a parameter with an MEC in exceedance of the most stringent criteria not to present an Endpoint 1.

4. End Point 1 – RP determined, limit required, monitoring required.
   End Point 2 – Discharger determined not to have RP, monitoring may be established.
   End Point 3 – RPA was inconclusive, carry over previous limitations if applicable, and establish monitoring.
5. Effluent limitation necessary based on Step 13 of Ocean Plan Appendix VI procedures.
6. Only chronic toxicity monitoring is required by the existing permit. Therefore, no RPA performed on acute toxicity data.
7. Chronic toxicity possesses reasonable potential based on Step 13 of Ocean Plan and Resolution 88-80 which stipulates that the Discharger's 301(g) exception to Ocean Plan requirements for total residual chlorine is contingent upon the discharge at Discharge Point 001 meeting a chronic toxicity limit of 10.7 TUc as a daily maximum.
8. Non-chlorinated phenolic compounds represent the sum of 2-nitrophenol; phenol; 2,4-dimethylphenol; 2,4-dinitrophenol; 2-methyl-4,6-dinitrophenol; and 4-nitrophenol.
9. Chlorinated phenolic compounds represent the sum of 2-chlorophenol; 2,4-dichlorophenol; 2,4,6-trichlorophenol; 4-chloro-3-methylphenol; and pentachlorophenol.
10. HCH shall mean the sum of alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.
11. No data submitted for this constituent.
12. DDT shall mean the sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.
13. Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide), and chloromethane (methyl chloride).
14. PAHs shall mean the sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo(k)fluoranthene; 1,12-benzoperylene; benzo(a)pyrene; chrysene; dibenzo(a,h)anthracene; fluorine; indeno(1,2,3-cd)pyrene; phenanthrene; and pyrene.
15. PCBs shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Arolclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
16. TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below. 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

Isomer Group	Toxicity Equivalency Factor (TEF)
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
Octa CDD	0.001
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
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
Octa CDF	0.001

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4. WQBEL Calculations

From the Table 1 water quality objectives of the Ocean Plan, effluent limitations are calculated according to Equation 1 of the Ocean Plan for all pollutants, except for acute toxicity (if applicable) and radioactivity:

$$C_e = Co + D_m(C_o - C_s)$$

Where:

C_e = the effluent limitation (µg/L)

C_o = the water quality objective to be met at the completion of initial dilution (µg/L)

C_s = background seawater concentration (µg/L)

D_m = minimum probable initial dilution expressed as parts seawater per part wastewater

As discussed in Section IV.C.3 above, the D_m has been determined to be 9.7 to 1 for all pollutants except chlorine, which the D_m has been determined to be 10.7 to 1 by the State Water Board (approval in memorandum to Los Angeles Water Board dated February 4, 1985).

Table 3 of the Ocean Plan establishes background concentrations (represented as "C_s") for some pollutants to be used when determining reasonable potential. In accordance with Table 1 implementing procedures, C_s equals zero for all pollutants that do not have background concentrations in Table 3. The background concentrations provided in Table 3 are summarized below:

Table F-22. Background Seawater Concentrations (C_s)

Pollutant	Ocean Plan Table 3 Background Concentration (µg/L)
Arsenic	3
Copper	2
Mercury	0.0005
Silver	0.16
Zinc	8

Section III.C.8.d of the Ocean Plan describes compliance determination for Table 1 pollutants for dischargers that use a large volume of ocean water for once-through cooling and states:

> *Effluent concentration values (C_e) shall be determined through the use of equation 1 considering the minimum probable initial dilution of the combined effluent (in-plant waste streams plus cooling water flow). These concentration values shall then be converted to mass emission limitations as indicated in equation 3. The mass emission limits will then serve as requirements applied to all in-plant waste streams taken together which discharge into the cooling water flow, except for total chlorine residual, acute [if applicable per Section 3 (c)] and chronic toxicity, and instantaneous maximum concentrations in Table 1 shall apply to, and be measured in, the combined final effluent, as adjusted for dilution with ocean water.*

In accordance with Ocean Plan implementation procedures for dischargers using a large volume of ocean water for once-through cooling, this Order establishes WQBELs applicable to the combined discharge through Discharge Point 001 as concentration-

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based limitations for all Ocean Plan Table 1 parameters requiring instantaneous maximum; and as both concentration- and mass-based limitations for all Table 1 parameters requiring 6-month median, daily maximum, and average monthly (30-day average) limitations. This Order also establishes WQBELs applicable to the in-plant waste streams as mass-based limitations for all Table 1 parameters requiring 6-month median, average monthly (30-day average), and daily maximum effluent limitations, with compliance determined by the **total in-plant waste streams mass discharge** taken together, which will be calculated as the sum of the mass discharges from the individual in-plant waste streams. As such, this Order includes effluent limitation as sum of mass discharges from all in-plant waste streams for bis (2-ethylhexyl) phthalate that had demonstrated reasonable potential in a RPA.

Section III.C.4.j of the Ocean Plan states that the permit "shall also specify effluent limitations in terms of mass emission rate limits" applicable to the commingled discharge in addition to concentration-based WQBELs. This Order establishes mass emission rate effluent limitations for DDTs applicable to the commingled discharge at Discharge Point 001.

The following demonstrates how the WQBEL's for bis (2-ehthylhexyl) phthalate, are established. The flow rates used in calculations are based on the plant's maximum flows reported in the updated flow diagrams submitted by the Discharger on March 12, 2015 and the subsequent revision on November 6, 2015. Storm water runoffs are not included in the calculations of total in-plant waste flows.

Compute the concentration based (C_e) and mass based (L_e) effluent limitations for bis (2-ehthylhexyl) phthalate at Discharge Point 001 (final combined effluent):

C_e = 3.5 µg/L + 9.7 (3.5 µg/L – 0) = 37.45 µg/L (30-day Average)
L_e = 0.00834 x 37 µg/L x 226 MGD = ***70 lbs/day*** *(30-Day Average)~~(on and after January 1, 2016)~~*

Compute maximum mass emission limitations for all in-plant waste streams including low volume wastes (monitoring location INT-001A), demineralization/reverse osmosis system waste~~brine~~ and repowering low volume wastes (monitoring location INT-001B), and cooling tower blowdown (monitoring location INT-001C).

*~~This limitation is effective on and after **January 1, 2016**.~~*
0.442~~247~~(INT-00A) + 0.175~~370~~(INT-00B) + 0.015(INT-00C) = 0.632 MGD MGD (total flows)
0.00834 x 37 µg/L x 0.632 MGD = ***0.195 lbs/day*** *(30-Day Average)*

5. DDT and PCBs

Consistent with 40 C.F.R. sections 130.2 and 130.7, section 303(d) of the CWA and U.S. EPA guidance for developing TMDLs in California, the U.S. EPA issued the *Santa Monica Bay TMDLs for DDTs and PCBs* on March 26, 2012. It includes WLAs for DDT and PCBs for point sources, including the Facility, that are described in Table 6-2 of the TMDL.

The Los Angeles Water Board developed WQBELs for DDTs and PCBs on the basis of the WLAs. The Los Angeles Water Board developed WQBEL's pursuant to 40 C.F.R. section 122.44(d)(1)(vii), which does not require or contemplate a reasonable potential analysis. Additionally, section 8 of the TMDL, (Implementation Recommendations) stipulates that "all discharges with WLAs identified in Table 6-2 are to be considered by NPDES permit writers to have reasonable potential under 40 C.F.R. 122.44(d) and require WQBELs following this TMDL."

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The TMDL provides WLAs for the Discharger for DDT and PCBs equal to 0.00017 µg/L and 0.000019 µg/L, respectively, which are intended to meet the target concentrations within the receiving water. The WLAs are equal to the Ocean Plan objectives for the protection of human health.

As described in section 6.2 of the TMDL (Wasteload Allocations), the WLAs are to be translated to WQBELs with no further adjustment of dilution credit or background concentrations. In section 8.1, U.S. EPA recommends the concentration-based WLAs be implemented as an average monthly WQBELs in permits. As follows, the average monthly effluent limits for DDT and PCBs would be 0.00017 µg/L and 0.000019 µg/L, respectively; however, the more stringent TBEL for PCBs is "no discharge" and is included as a narrative effluent limitation, rather than an effluent limitation based on the WLA (see discussion in section IV.D.). The TBEL for PCBs in this Order have been applied as a Discharge Prohibition.

6. Total Chlorine Residual

As discussed in Section IV.B.2.d of the Fact Sheet, Order 00-083 contained a total residual chlorine effluent limitation which was established on the basis of the Discharger's 301(g) variance and an exception to the Ocean Plan granted under State Board Resolution 88-80. The exception allows the Discharger to meet an alternative effluent limitation (formerly referred to as the proposed modified effluent limitation or PMEL) of 0.436 mg/L as a maximum concentration. This Order retains the effluent limitation of 0.436 mg/L contained in Order 00-083 and changes the type of limitation from a daily maximum to an instantaneous maximum because this total residual chlorine effluent limitation was expressed as an instantaneous maximum concentration in the 301(g) Variance Terms and Conditions

7. Temperature

The temperature limitations included in Order 00-083 were based on specific water quality objectives for existing coastal water dischargers in the Thermal Plan and are retained in this Order.

In compliance with the Thermal Plan and in accordance with Los Angeles Water Board specifications, a thermal effect study of the discharge was completed in 1973. The study demonstrated that wastes discharges from the power plant were in compliance with the Thermal Plan and beneficial uses of the receiving waters are protected, as required by Section 316(a) of the CWA. The ROWD also indicated that the receiving water monitoring studies have demonstrated that the cooling water discharge does not adversely affect marine life in the vicinity of the discharge. Thus the power plant with temperature discharges prescribed in the Order is in compliance with the Thermal Plan.

8. Whole Effluent Toxicity (WET)

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

Although chronic toxicity data did not demonstrate statistical reasonable potential, Los Angeles Water Board staff has determined that chronic toxicity possesses reasonable

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potential based on Step 13 (other available information) from the Ocean Plan and the special terms and conditions required in the CWA 301(g) variance for chlorine, which is contingent upon the discharge at Discharge Point 001 meeting a chronic toxicity limit of 10.7 TUc as a daily maximum. As mentioned below, the chronic toxicity limitation in this Order implements the U.S. EPA's 2010 Test of Significant Toxicity (TST) statistical approach. The chronic toxicity effluent limitations in this Order are as stringent as necessary to protect the Ocean Plan Water Quality Objective for chronic toxicity.

The Ocean Plan establishes a daily maximum chronic toxicity objective of 1.0 TUc = 100/NOEC, using a 5-concentration hypothesis test. In 2010, U.S. EPA endorsed the peer-reviewed Test of Significant Toxicity (TST) statistical approach in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) as an improved hypothesis-testing tool to evaluate data from U.S. EPA's toxicity test methods. The TST testing approach more reliably identifies toxicity—in relation to the chronic (0.25 or more) and acute (0.20 or more) mean responses of regulatory management concern—than the current NOEC hypothesis-testing approach used in the Ocean Plan. TST results are also more transparent than the point estimate model approach used for acute toxicity in the Ocean Plan that is not designed to address the question of statistical uncertainty around the modeled toxicity test result in relation to the effect level of concern. The TST is the superior approach for addressing statistical uncertainty when used in combination with U.S. EPA's toxicity test methods and is implemented in federal permits issued by U.S. EPA Region 9.

The TST's null hypothesis for chronic toxicity is:

H_0: Mean response (In-stream Waste Concentration (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 IWC for Discharge Point 001 is 100/(9.7+1) = 9.35 percent effluent.

D. Final Effluent Limitation Considerations

Section 402(o) of the CWA and section 122.44(l) require that effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Order based on the submitted sampling data. Technology-based effluent limitations for pH, TSS, oil and grease, and PCBs for low volume wastes, and demineralization/reverse osmosis system waste~~brine with repowering low volume wastes~~, and effluent limitations for pH, free available chlorine, total chromium, zinc and priority pollutants for cooling tower blowdown have been included and are based on the ELGs established in 40 C.F.R. part 423. An effluent limitation for total residual chlorine, based on State Board Resolution 88-80 and section 301(g) of the CWA, has been retained in this Order for the final combined effluent. This Order includes new WQBELs for bis(2-ethylhexyl) phthalate for the final combined effluent and for all in-plant waste streams based on Ocean Plan water quality objectives.

Based on the *Santa Monica Bay DDTs and PCBs TMDL*, the Facility is subject to a WQBEL for PCBs equal to 0.000019 µg/L. Based on the ELGs, the Facility is subject to a narrative effluent limitation prohibiting the discharge of PCBs. With the assumption that the prohibition includes concentrations that are not quantifiable using existing detection limits, it would be more stringent than the TMDL WQBEL. Therefore, this Order does not establish an effluent limitation for PCBs based on the WLA contained in the *Santa Monica Bay DDTs and PCBs TMDL*; instead it retains the more stringent effluent limitation consistent with the applicable

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ELGs which prohibits the discharge of PCBs (discussed in Section IV.B.). A new WQBEL for DDT is included in this Order based on the *Santa Monica Bay DDTs and PCBs TMDL.*

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. The effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, with the exception of effluent limitations for arsenic, cadmium, hexavalent chromium, copper, lead, mercury, nickel, selenium, silver, and zinc.

Section 402(o)(2)(B) states that effluent limitations may be less stringent in instances when information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. Parameters at Discharge Point 001 which displayed Endpoint 2 (i.e., did not display reasonable potential to cause or contribute to an excursion above water quality objectives) have been relaxed pursuant to this exception. These parameters include arsenic, cadmium, hexavalent chromium, copper, lead, mercury, nickel, selenium, silver, and zinc. For these constituents, recent effluent monitoring data collected from 2009 through 2014 was evaluated for reasonable potential in accordance with Ocean Plan procedures. The results based on this recent data indicated there was no reasonable potential to cause or contribute to an exceedance of a water quality objective. Existing and newly established effluent limitations were established based on Ocean Plan procedures and objectives. As such, the effluent limitations in this Order are consistent with anti-backsliding requirements.

The ELGs (average and maximum limitations) as specified in 40 C.F.R. part 423 for free available chlorine and total residual chlorine were included in Order No. 00-083 as monthly average and daily maximum limitations. As explained in section IV.B.3 of this Fact Sheet, this Order instead implements the average and maximum limitations for free available chlorine and total residual chlorine as average concentration effluent limitation and instantaneous maximum limitations, to be consistent with 40 C.F.R. section 423.11 and the 2013 EPA document (EPA-821-R-13-002). Therefore, the limitations for these parameters are consistent with anti-backsliding requirements and are at least as stringent as those in Order No. 00-083.

2. Antidegradation Policies

Federal regulation 40 C.F.R. section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16. Resolution 68-16 incorporates 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 and the Ocean Plan implement, and incorporate by reference, both the State and federal antidegradation policies.

This Order does not provide for an increase in the permitted design flow or allow for a reduction in the level of treatment. The new Units 4, 5, 6, and 7 will result in new discharges of low volume wastes. However, the replacement of once-through cooling water with dry cooling will result in a substantial decrease in the total effluent volume. In addition, the Facility continues to provide treatment consisting of settling tanks and

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oil/water separators for low volume wastes. Therefore, only a net decrease in the quantity of flow discharged is permitted under this Order. The final limitations in this Order, which include concentration based and mass based limitations, hold the discharger to performance levels that will not cause or contribute to water quality impairment or degradation of water quality and compliance with the requirements in this Order will result in the best practicable treatment or control of the discharge. The removal of effluent limitations for arsenic, cadmium, hexavalent chromium, copper, lead, mercury, nickel, selenium, silver, and zinc will not allow degradation of the receiving water because these pollutants are present in the effluent at levels below background concentrations or at very low concentrations after considering the allowable dilution factor and the volume of the discharge. Therefore, the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution 68-16.

3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on free available chlorine and total residual chlorine in once-through cooling water; oil and grease and TSS in low volume wastes and metal cleaning wastes; free available chlorine, total chromium, zinc, and priority pollutants in cooling tower blowdown; and PCBs on all wastewater sources. Restrictions on these pollutants are discussed in IV.B.3. of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Water quality-based effluent limitations have been derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The procedures for calculating the individual water quality-based effluent limitations are based on the Ocean Plan, most recently amended, effective on August 19, 2013. All beneficial uses and water quality objectives contained in the Ocean Plan were approved under state law and submitted to and approved by U.S. EPA and are applicable water quality standards pursuant to 40 C.F.R. 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.

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Table F-23. Summary of Final Effluent Limitations for Discharge Point 001 (Monitoring Location EFF-001)

Pollutant	Units	Average Monthly (30-day Average)	Average Concentration	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Rationale[1]
pH	pH Units	--		--	6.0	9.0	E, OP, ELG
Temperature	°F	--		[2]	--	--	E, TP
PCBs[3]	µg/L	[4]					E, ELG
Chronic Toxicity	Pass or Fail, % Effect	--		Pass or % Effect<50	--	--	BPJ, TST, 301(g)
DDT	µg/L	0.00017		--	--	--	TMDL
	lbs/day[5]	0.00032		--	--	--	
Bis(2-Ethylhexyl) Phthalate	µg/L	37	--	--	--	--	OP
	lb/day[5]	70	--	--	--	--	
Total Residual Chlorine[6]	mg/L	--		--	--	0.436[7]	E, 301(g)
Free Available Chlorine	mg/L	--	0.2[8]		--	0.5	E, ELG

1. BPJ = Best Professional Judgment, E = Existing Order, OP = Ocean Plan (effective August 19, 2013), ELG = Effluent Limitation Guidelines and Standards (40 C.F.R. part 423), TMDL = *Santa Monica Bay TMDLs for DDTs and PCBs*, TP = Thermal Plan, 301(g) = 301(g) Variance and State Water Board Resolution 88-80. TST = EPA Test of Significant Toxicity Approach
2. The temperature of wastes discharged shall not exceed 100°F during normal operation of the facility. During heat treatment, the temperature of wastes discharged shall not exceed 135°F except during adjustment of the recirculation gate at which time the temperature of wastes discharged shall not exceed 140°F. Temperature fluctuations during gate adjustment above 135°F shall not last for more than 30 minutes.
3. PCBs mean the sum of Aroclor-1016, 1221, 1232, 2342, 1248, 1254, and 1260 when monitoring using U.S. EPA method 608. PCBs mean the sum of 41 congeners when monitoring using U.S. EPA proposed method 1668c. PCB-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, 201, and 206 shall be individually quantified.
4. The Discharge of PCBs is prohibited (See Order Prohibitions section III.I)
5. These mass-based effluent limitations are calculated using the following formula:
   Mass-based effluent limitation = C * Q * 0.00834
   Where:
   C = Concentration-based effluent limitation (µg/L)
   Q = Maximum discharge flow rate (MGD); (226 MGD ~~on and after January 1, 2016~~)
6. If other oxidants are used, this shall be the total of all oxidants and reported as residual chlorine.

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7. This limit is applicable to the sampling during periods of chlorination. The condenser halves (two in a single unit) are chlorinated for up to 40 minutes per chlorination cycle, and there is a maximum of three chlorination cycles per 24-hour period for each unit. For chlorine discharges of up to 40 minutes during a chlorination cycle, the instantaneous maximum limit is 0.436 mg/l. For chlorine discharges exceeding 40 minutes during a chlorination cycle, the maximum total residual chlorine limitation shall be the BAT limitation of 0.2 mg/L.
8. Applied as an average of analyses over a single period of chlorine release which does not exceed two hours.

Table F-24. Summary of Final Effluent Limitations for Low Volume Wastes at Monitoring Location INT-001A

Pollutant	Units	Average Monthly[5]	Maximum Daily[5]	Instantaneous Minimum[5]	Instantaneous Maximum[5]	Rationale[1]
pH	pH Units	--	--	6.0	9.0	E, ELG
PCBs[2]	µg/L	[3]				ELG
Total Suspended Solids (TSS)	mg/L	30.0	100.0	--	--	E, ELG
	lbs/day[4]	11162	369210	--	--	
Oil and Grease	mg/L	15.0	20.0	--	--	E, ELG
	lbs/day[4]	5531	7441	--	--	

1. E = Existing Order, ELG = Effluent Limitation Guidelines and Standards (40 C.F.R. part 423)
2. PCBs mean the sum of Aroclor-1016, 1221, 1232, 2342, 1248, 1254, and 1260 when monitoring using U.S. EPA method 608. PCBs means the sum of 41 congeners when monitoring using U.S. EPA proposed method 1668c. PCB-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, 201, and 206 shall be individually quantified.
3. The discharge of PCBs is prohibited (See Order Prohibitions section III.I)
4. The mass-based limitations are based on a maximum low volume waste flow ~~(excluding storm water runoff below elevation 34 ft.)~~ and are calculated as follows:

   Mass-based limitation (lb/day) = C x Q_m x 8.34

   Where:

   C = Concentration-based limitations (mg/L).

   Q_m = The maximum flow for low volume wastes ~~excluding storm water runoff~~ as reported in the updated flow diagrams ~~(March 12, 2015)~~. (0.442~~247~~ MGD ~~on and after January 1, 2016~~).
5. When this waste stream is discharging absent the once-through cooling water, the effluent shall comply with all applicable water quality objectives in Table 1 of the Ocean Plan with no dilution.

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Table F-25. Summary of Final Effluent Limitations for ~~Reverse Osmosis~~ Demineralization System Waste~~Brine and other Low Volume Wastes~~ at Monitoring Location INT-001B

Pollutant	Units	Average Monthly[5, ~~6~~]	Maximum Daily[5,~~6~~]	Instantaneous Minimum[5, ~~6~~]	Instantaneous Maximum[5, ~~6~~]	Rationale[1]
pH	pH Units	--	--	6.0	9.0	E, ELG
PCBs[2]	µg/L	[3]				ELG
TSS	mg/L	30.0	100.0	--	--	E, ELG
	lbs/day[4]	44~~93~~	146~~30~~8	--	--	
Oil and Grease	mg/L	15.0	20.0	--	--	E, ELG
	lbs/day[4]	22~~46~~	29~~62~~	--	--	

1. E = Existing Order, ELG = Effluent Limitation Guidelines and Standards (40 C.F.R. part 423)
2. PCBs mean the sum of Aroclor-1016, 1221, 1232, 2342, 1248, 1254, and 1260 when monitoring using U.S. EPA method 608. PCBs means the sum of 41 congeners when monitoring using U.S. EPA proposed method 1668c. PCB-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, 201, and 206 shall be individually quantified.
3. The discharge of PCBs is prohibited (See Order Prohibitions section III.I)
4. The mass-based limitations are based on a maximum waste flow of ~~reverse osmosis~~demineralization system waste~~brine plus other low volume wastes~~ and are calculated as follows:

   Mass-based limitation (lb/day) = C x Q_m x 8.34

   Where:

   C = Concentration-based limitations (mg/L).

   Q_m = The maximum flow for ~~reverse osmosis~~demineralization system waste~~brine and low volume wastes~~ as reported in the updated flow diagrams ~~(March 12, 2015)~~.

   ~~A portion of low volume wastes will be combined with this waste stream after the completion of the Unit 3 repowering~~.

   (~~0.106 MGD until December 31, 2015;~~ 0.175~~370~~ MGD ~~on and after January 1, 2016~~).

~~5. From January 1, 2016 through June 30, 2016, the flow-weighed composite sample may be used for complying with these limitations. The flow-weighed composite sample shall be based on the measured flow rates in the reverse osmosis brine waste stream and the repowering low volume waste stream, respectively, at the sampling time.~~

~~6.~~5. When this waste stream is discharging absent the once-through cooling water, the effluent shall comply with all applicable water quality objectives in Table 1 of the Ocean Plan with no dilution.

Table F-26.Summary of Final Effluent Limitations for Cooling Tower Blowdown at Monitoring Location INT-001C

Pollutant	Units	Average Monthly	Average Conc.	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Rationale[1]
pH	pH Units	--		--	6.0	9.0	ELG
Free Available Chlorine	mg/L	--	0.2[2]		--	0.5	ELG
PCBs[3]	µg/L	[4]					ELG
Priority Pollutants contained in chemicals added for cooling tower maintenance, except:[5]	µg/L	[6]					E, ELG
Chromium, Total	mg/L	0.2	--	0.2	--	--	E, ELG
	lbs/day[7]	0.025	--	0.025	--	--	
Zinc, Total	mg/L	1.0	--	1.0	--	--	E, ELG
	lbs/day[7]	0.13	--	0.13	--	--	

1. E = Existing Order, ELG = Effluent Limitation Guidelines and Standards (40 C.F.R. part 423)
2. Applied as an average of analyses over a single period of chlorine release which does not exceed two hours.
3. PCBs mean the sum of Aroclor-1016, 1221, 1232, 2342, 1248, 1254, and 1260 when monitoring using U.S. EPA method 608. PCBs means the sum of 41 congeners when monitoring using U.S. EPA proposed method 1668c. PCB-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, 201, and 206 shall be individually quantified.
4. The discharge of PCBs is prohibited (See Order Prohibitions section III.I)
5. The 126 priority pollutants (Appendix A to 40 C.F.R. part 423) contained in chemicals added for cooling tower maintenance, except for total chromium and total zinc.
6. No detectable amount of the 126 priority pollutants contained in chemicals added for cooling tower maintenance.
7. The mass-based limitations are based on a maximum waste flow of the cooling tower blowdown and are calculated as follows:
   Mass-based limitation (lb/day) = C x Q_m x 8.34
   Where:
   C = Concentration-based limitations (mg/L)
   Q_m = The maximum flow for the cooling tower blowdown as reported in the updated flow diagrams ~~(March 12, 2015)~~.
   (0.015 MGD ~~on and after January 1, 2016~~).

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Table F-27.Summary of Final Effluent Limitations for Mass emission from all In-plant Waste Streams at Monitoring Locations INT-001A, INT-001B and INT-001C

Parameter	Units	Effluent Limitations	
		Average Monthly (30-day Average)	Maximum Daily
Bis(2-Ethylhexyl) Phthalate	lbs/day[1]	0.20	--

1. The mass-based limitations are based on the maximum combined in-plant waste flows of 0.632 MGD ~~(on and after January 1, 2016)~~ and are calculated as follows:

   Mass-based limitation (lb/day) = C x Q_m x 0.00834
   Where:
   C = Concentration-based limitations (µg/L) calculated in the combined discharge (cooling water and in-plant wastes). (37 µg/L for bis (2-ethylhexyl) phthalate).
   Q_m = The sum of the maximum individual in-plant waste flows at INT-00A, INT-00B and INT-00C, as indicated in the updated flow diagrams ~~(March 12, 2015)~~
   [0.442~~247~~(INT-00A) + 0.175~~370~~(INT-00B) + 0.015(INT-00C) = 0.632 MGD ~~(on and after January 1, 2016)~~

   Mass limitation = 37 µg/L x 0.632 MGD x 0.00834 = **0.195** lbs/day

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E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications

Not Applicable

G. Recycling Specifications

Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Ocean Plan contains numeric and narrative water quality objectives applicable to the coastal waters of California. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (section 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in this Order are included to ensure protection of beneficial uses of the receiving water and are based on the water quality objectives contained in the Ocean Plan.

B. Groundwater – Not Applicable

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. section 122.42, are provided in Attachment D to the order.

Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

These provisions are based on 40 C.F.R. part 123 and the previous Order. 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 and/or Ocean Plan.

2. Special Studies and Additional Monitoring Requirements

a. Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan. This provision is based on section III.C.10 of the Ocean Plan.

b. Mixing Zone and Dilution Credit Study Work Plan. Within 90 days after the effective date of this Order, the Discharger is required to develop and submit to the Los Angeles Water Board for review a work plan detailing how the Discharger will conduct a Mixing Zone and Dilution Credit Study based on the reduced discharge

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flow after the completion of the Unit 3 repowering (after December 31, 2015). The study shall identify the boundary of the zone of initial dilution (ZID) based on modelling results, and include monitoring upstream of the discharge point, directly above the discharge location, at the boundary of the ZID, and outside the ZID for the list of constituents included in Table 1 of the Ocean Plan, to confirm the assumptions made by the model. The new dilution credit derived from the study, upon the approval of the State Board or the Los Angeles Water Board, will be implemented when the Order is revised after December 31, 2015.

3. Best Management Practices and Pollution Prevention

a. Storm Water Pollution Prevention, Best Management Practices, and Spill Contingency Plans

i. **Storm Water Pollution Prevention Plan (SWPPP).** This Order requires the Discharger to develop and update, as necessary, and continue to implement a SWPPP. The SWPPP will outline site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into the receiving water. At a minimum, the management practices should ensure that raw materials and chemicals do not come into contact with storm water. SWPPP requirements are included as Attachment G, based on 40 C.F.R. section 122.44(k).

ii. **Best Management Practices Plan (BMPP).** This Order requires the Discharger to develop and implement a 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 Appendix G. Appendix G requires a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

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

4. Construction, Operation, and Maintenance Specifications

a. This provision is based on the requirements of 40 C.F.R. section 122.41(e).

5. Other Special Provisions

a. Once-Through Cooling Water Implementation Plan and Compliance Schedule

i. **Once-Through Cooling Water Compliance Schedule**

Under Track 1 of the State Water Board's OTC Policy, an existing power plant must reduce the intake flow rate to a level commensurate with closed-cycle wet cooling such that the through-screen intake velocity does not exceed 0.5 feet per second.

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Track 2 is available to existing plants that demonstrate that Track 1 is infeasible, and such plants must reduce impingement and entrainment by 90 percent unless the California Independent System Operator, California Energy Commission, or Public Utilities Commission determines there is continued need for the plant, in which event the State Water Board will hold a hearing to consider suspension of the compliance date. In the interim, the OTC Policy requires plants to implement measures to mitigate impingement and entrainment impacts.

According to the Policy, an implementation plan identifying the selected compliance alternative was due on April 1, 2011. The Discharger submitted an implementation plan for compliance with the OTC Policy on April 1, 2011 and amended it on December 10, 2012. According to its implementation plan, the facility consists of three fossil-fueled, steam-electric generating units (1, 2, and 3) and has determined it can comply with the OTC Policy in accordance with the following schedule. The Regional Water Board is responsible for ensuring that compliance with the OTC policy is timely, appropriate, and effective. Progress reports will enable the Regional Water Board to monitor the progress towards achieving compliance.

Table F-28. Schedule of Compliance with OTC Policy

Task	Compliance Date
1. Achieve full compliance with Unit 3	**December 31, 2015**
2. Submit first Progress Report on compliance status Units 1 and 2.	December 1, 2019
3. Submit second Progress Report on compliance status Units 1 and 2.	December 1, 2021
4. Submit third Progress Report on compliance status Units 1 and 2.	December 1, 2023
5. Achieve full compliance with Units 1 and 2.	**December 31, 2024**

ii. **OTC Policy Immediate and Interim Requirements:**

The OTC Policy requires the following immediate and interim requirements:

(a) As of October 1, 2011, the owner or operator of an existing power plant with an offshore intake shall install large organism exclusion devices having a distance between exclusion bars of no greater that nine inches, or install other exclusion devices, deemed equivalent by the State Water Board.

(b) As of October 1, 2011, any unit that is not directly engaged in power-generating activities or critical system maintenance shall cease intake flows unless it has been demonstrated to the State Water Board that a reduced minimum flow is necessary for operations.

(c) Commencing on October 1, 2015 and continuing up and until achieving final compliance with the OTC Policy, the owner or operator of the existing power plant must implement measures to mitigate the interim impingement and entrainment impacts resulting from the discharge.

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(d) Owners or operators of fossil fueled units that have submitted implementation plans to comply with the OTC Policy and have requested OTC compliance dates after December 31, 2022 that are approved by the State Water Board shall:

(1) Commit to eliminate OTC and seawater use for cooling water purposes for all units at the facility.

(2) Conduct a study or studies, singularly or jointly with other facilities, to evaluate new technologies or improve existing technologies to reduce impingement and entrainment.

(3) Submit the results of the study and a proposal to minimize entrainment and impingement to the Chief Deputy Director no later than December 31, 2015.

(4) Upon approval of the proposal by the Chief Deputy Director, complete implementation of the proposal no later than December 31, 2020.

In accordance with the OTC Policy, by October 1, 2011, all existing power plants with offshore intakes were required to install large organism exclusion devices having a distance between exclusion bars of no greater than nine inches, or other exclusion devices deemed equivalent by the State Water Board. The Discharger, as of February 20, 2008 has installed fifteen exclusionary panels at the intake riser velocity cap, consisting each panel of 8 bars equally spaces at 9 inches from each other, and is in compliance with this OTC Policy requirement. In addition, the Discharger has also indicated that all units, are, at all times, involved in power generating activities, which includes standby status in order to bring units online as necessary due to spikes in the demand, unplanned outages that may occur, or due to variability of variable energy resources (VERs), meaning wind and solar. However, some units may be brought down once per year for planned maintenance. These maintenance activities can last from weeks to months depending on the nature of the maintenance activity and would constitute period of time when power would not be generated from the units. These outages are variable and subject to change so no set time frame is established for each unit being down at a given time each year.

With regards to the interim impingement and entrainment mitigation measures, the Discharger has indicated that as of October 1, 2015 and until Scattergood Generating Station achieves full OTC compliance, it will provide funding to the Coastal Conservancy to be used for mitigation projects directed toward increases in marine life associated with the State's Marine Protected Areas in the local region of the SGS. The amount to be provided shall be determined by the Chief Deputy Director of the Division of Water Quality of the State Water Board. In addition, since the compliance date for Units 1 and 2 are after December 31, 2022, a provision of this Order requires the Discharger to submit the results of a study evaluating new technologies or improving existing technologies to reduce impingement and entrainment along with a proposal to minimize entrainment and impingement to the Chief Deputy Director no later than December 31, 2015.

6. Compliance Schedules – Not Applicable

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VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(*l*), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring

Order 00-083 contained semi-annual monitoring for a variety of metals in the intake water in the MRP. This monitoring was established for use in establishing background concentrations used in calculating effluent limitations for these pollutants. The Ocean Plan has prescribed default background pollutant concentrations for these parameters; therefore, monitoring for these metals in the intake water is no longer necessary.

B. Effluent Monitoring

1. Discharge Point 001 (Monitoring Location EFF-001)

a. Revisions to the Ocean Plan that were incorporated into the 2012 Ocean Plan Appendix III include a model monitoring framework for point sources, storm water point sources, and non-point sources. Based on Appendix III, core monitoring, described as "basic, site-specific monitoring necessary to measure compliance with individual effluent limits and/or impacts to receiving water quality, is required for Ocean Plan Table 1 constituents. Section 5.1 of Appendix III in the 2012 Ocean Plan specifies a minimum semiannual monitoring frequency for Table 1 pollutants in discharges greater than 10 MGD. The monitoring frequency for Table 1 pollutants at Discharge Point 001 in Order 00-083 is once every five years. Based on the model monitoring framework of the 2012 Ocean Plan, this Order increases the frequency of monitoring for Table 1 pollutants to semiannually (2/year). 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 Ocean Plan during future permit reissuances.

b. Monitoring at a frequency of once per month has been established for bis(2-ethylhexyl) phthalate, PCBs, and DDT. This monitoring is necessary to determine compliance with effluent limitations and to provide data for evaluating reasonable potential for the new discharge to cause or contribute to an exceedance of applicable water quality objectives contained in the Ocean Plan during future permit reissuances.

c. Semiannual monitoring for total coliform, fecal coliform, and enterococcus have been established in this MRP (Attachment E). The primary source for bacteria is the sanitary wastewater generated at the facility. That discharge was terminated in 2010. However, bacteria data are needed for the evaluation of the receiving water objectives.

d. Compliance with effluent limits must be determined using an approved method under 40 C.F.R. part 136. In the case of PCBs, this is Method 608. Consistent with the Santa Monica Bay TMDLs for DDT and PCBs, this Order also requires the Discharger to monitor and report PCBs using U.S. EPA's proposed Method 1668c, which is capable of quantifying PCBs that are present at lower levels than Method 608. The Los Angeles Water Board will use Method 1668c PCBs data to verify

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assumptions and evaluate the need to further refine wasteload allocations in the TMDL. The Los Angeles Water Board finds that these monitoring and reporting requirements bear a reasonable relationship to the Los Angeles Water Board's need for and the benefits obtained from the reports.

2. **In-Plant Waste Streams (Monitoring Locations INT-001A, INT-001B, INT-001C)**

Monitoring requirements for low volume wastes included in Order 00-083 have been retained in the MRP (Attachment E). These monitoring requirements are necessary to determine compliance with effluent limitations established in this MRP (Attachment E).

Monthly monitoring has been established in the MRP (Attachment E) for those pollutants where effluent limitations have been newly established in the Order (i.e., bis[2-ethylhexyl]phthalate). However, the monitoring frequency for PCBs is twice per year to verify compliance with the TMDL which stipulates no discharges of PCBs.

The mass emissions of bis(2-ethylhexyl) phthalate from all in-plant waste streams before combining with once-through cooling water flow are calculated, separately. Compliance shall be determined by the total mass emission for bis(2-ethylhexyl) phthalate reported, calculated as the sum of the mass emissions from the individual in-plant waste streams as measured in INT-001A, INT-001B, and INT-001C, taken into account of the actual flow rates of the individual waste streams.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. Chronic toxicity is a more stringent requirement than acute toxicity. A chemical at a low concentration can have chronic effects but no acute effects. For this permit, chronic toxicity in the discharge is limited and evaluated using U.S. EPA's 2010 TST statistical approach. The chronic toxicity effluent limitations are as stringent as necessary to protect the Ocean Plan Water Quality Objective for chronic toxicity.

Section III.C.3.c.(4) of the Ocean Plan requires dischargers to conduct chronic toxicity testing if the minimum initial dilution of the effluent is below 100:1. The Facility has an initial dilution ratio of 9.7 to 1 for chronic toxicity. Therefore, this Order includes monitoring requirements for chronic toxicity in the MRP (Attachment E).

This Order retains additional requirements to treat samples with chlorine to simulate effluent chlorine concentrations greater than BAT levels. This requirement is based on conditions for the 301(g) variance approval. The chlorine treatment is only required if any of the effluent chlorine results from the previous three months exceed BAT limitations of 0.2 mg/L.

D. Receiving Water Monitoring

1. Water Quality Monitoring

The monitoring requirements implement the Ocean Plan and follow the monitoring guidance in Appendix III (Standard Monitoring Procedures) of the Ocean Plan. The water quality monitoring requirements are included in the MRP (Attachment E) to determine compliance with the receiving water limitations established in this Order.

2. Benthic Sediments Monitoring

The monitoring requirements implement the Ocean Plan and follow the monitoring guidance in Appendix III (Standard Monitoring Procedures) of the Ocean Plan. This

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monitoring is required to determine if benthic conditions are changing over time as a result of the discharge.

3. Bioaccumulation Monitoring

The monitoring requirements implement the Ocean Plan and follow the monitoring guidance in Appendix III (Standard Monitoring Procedures) of the Ocean Plan. This local bioaccumulation trends survey is to address the question: "Is mussel tissue contamination in the vicinity of the outfall changing over time?"

4. Impingement Survey

Section 316(b) of the CWA requires the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact. In accordance with Federal and State guidelines in effect at the time, the Discharger conducted a study (1982) to assess the requirements of the CWA Section 316(b) as they relate to the Facility intake structures. The study concluded the ecological impacts were environmentally acceptable and did not warrant modifications to the intake structure. The Los Angeles Water Board concurred and determined the design, construction, and operation of the intake structure to be Best Available Technology Economically Achievable based on regulations in effect at the time. Periodic monitoring of the biological impacts caused by the operation of the intake structure is required to ensure compliance with the requirements in the new OTC Policy.

5. Regional Monitoring Program

NPDES compliance monitoring focuses on the effects of a specific point source discharge. Generally, it is not designed to assess impacts from other sources of pollution (e.g., nonpoint source runoff, aerial fallout) or to evaluate the current status of important ecological resources in the waterbody. The scale of existing compliance monitoring programs does not match the spatial and, to some extent, temporal boundaries of the important physical and biological processes in the ocean. In addition, the spatial coverage provided by compliance monitoring programs is less than ten percent of the nearshore ocean environment. Better technical information is needed about status and trends in ocean waters to guide management and regulatory decisions, to verify the effectiveness of existing programs, and to shape policy on marine environmental protection.

Regional monitoring is focused on questions that are best answered by a region-wide approach that incorporates coordinated survey design and sampling techniques. The major objective of regional monitoring is to collect information required to assess how safe it is to swim in the ocean, how safe it is to eat seafood from the ocean, and whether the marine ecosystem is being protected. Key components of regional monitoring include elements to address pollutant mass emission estimations, public health concerns, monitoring of trends in natural resources, assessment of regional impacts from all contaminant sources, and protection of beneficial uses.

The compliance monitoring programs for the Scattergood Generating Station and other major ocean dischargers will serve as the framework for the regional monitoring program. However, substantial changes to these programs will be required to fulfill the goals of regional monitoring, while retaining the compliance monitoring component required to evaluate the potential impacts from NPDES discharges.

The regular monitoring for the Southern California Bight has been established, occurring at four- to five-year intervals, and coordinated through the Southern California Coastal Water Research Project (SCCWRP) with discharger agencies and numerous other

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entities. The Bight regional monitoring programs were funded, in large part, by resource exchanges with the participating discharger agencies. During the year when Bight regional monitoring was scheduled, U.S. EPA and this Regional Board eliminated portions of the routine compliance monitoring programs for that year, while retaining certain critical compliance monitoring elements. A certain percentage of the traditional sampling sites were also retained to maintain continuity of the historical record and to allow comparison of different sampling designs. The exchanged resources were redirected to complete sampling within the regional monitoring program design. Thus, the dischargers' overall level of effort for the 1994, 1998, 2003, 2008 and 2013 pilot programs remained approximately the same as the compliance monitoring programs.

Future regional monitoring programs may be funded in a similar manner. Thus, revisions to the routine compliance monitoring program will be made under the direction of the U.S. EPA and this Regional Board as necessary to accomplish the goal; and may include resource exchanges.

E. Other Monitoring Requirements

1. Storm Water Monitoring

Monthly monitoring is required at monitoring locations INT-001D, and INT-001E~~ and INT-001F~~, respectively, for storm water runoff from two~~three~~ drainage areas within the Facility. Storm water sampling requirements are consistent with those in the State Board's General Permit (General Permit for Storm Water Discharges Associated With Industrial Activities, NPDES No. CAS000001) that is effective on July 1, 2015. Monitoring for priority pollutants is required once every two years. Monitoring the storm water is necessary to determine the effectiveness of BMPs.

2. Monitoring for Discharge of Calcareous Material

Monitoring during the discharge of calcareous material (excluding heat treatment discharge) has been retained from Order 00-083. This monitoring is necessary to evaluate the effect of the discharge on the beneficial uses of the receiving water.

3. Outfall and Diffuser Inspection

Inspection of the ocean outfall is necessary to ensure its condition and proper functioning. When not functioning at adequate capacity, the outfall and diffuser are unable to produce mixing characteristics with the receiving water consistent with the granted dilution or able to comply with water quality objectives.

VIII. PUBLIC PARTICIPATION

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

A. 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 to all interested parties via newspaper, email and posting in the vicinity of the facility.

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

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B. 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 jauren.chen@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 December 11~~October 5~~, 2015.

C. 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:	February 11~~November 5~~, 2016~~5~~
Time:	**9:00 a.m.**
Location:	**Metropolitan Water District of Southern California, Board Room** **700 North Alameda Street** **Los Angeles, California**

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

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

D. Reconsideration of Waste Discharge Requirements

Any aggrieved person may petition the State Water Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be received by the State Water Board at the following address within 30 calendar days of the Los Angeles Water Board's action.

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

For instructions on how to file a petition for review, see:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

E. 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.

F. 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.

G. Additional Information

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Requests for additional information or questions regarding this order should be directed to Jau Ren Chen at (213) 576-6656.

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ATTACHMENT G – STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

I. IMPLEMENTATION SCHEDULE

A storm water pollution prevention plan (SWPPP) shall be developed and submitted to the 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 6-months from the date of the submittal of the SWPPP to the Los Angeles Water Board (whichever comes first).

II. OBJECTIVES

The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, overhead 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.

III. PLANNING AND ORGANIZATION

A. Pollution Prevention Team

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

B. Review Other Requirements and Existing Facility Plans

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

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facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

IV. SITE MAP

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

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

PLANNING AND ORGANIZATION
Form Pollution Prevention Team
Review other plans
ASSESSMENT PHASE
Develop a site map
Identify potential pollutant sources
Inventory of materials and chemicals
List significant spills and leaks
Identify non-storm water discharges
Assess pollutant risks
BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE
Non-structural BMPs
Structural BMPs
Select activity and site-specific BMPs
IMPLEMENTATION PHASE
Train employees
Implement BMPs
Conduct recordkeeping and reporting
EVALUATION / MONITORING
Conduct annual site evaluation
Review monitoring information
Evaluate BMPs
Review and revise SWPPP

The following information shall be included on the site map:

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

B. The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm

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water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.

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

D. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in section VI.A.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.

V. LIST OF SIGNIFICANT MATERIALS

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, describe the locations where the material is being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

VI. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES

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

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

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

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

4. **Significant Spills and Leaks.** Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 C.F.R., part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (U.S. EPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 C.F.R. parts 110, 117, and 302).

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The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. Such list shall be updated as appropriate during the term of this Permit.

5. **Non-Storm Water Discharges.** Facility operators shall investigate the facility to identify all non-storm water discharges and their sources. As part of this investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

   All non-storm water discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

   Non-storm water discharges that contain significant quantities of pollutants or that do not meet the conditions provided in Special Conditions D of the storm water general permit are prohibited by this Permit (Examples of prohibited non-storm water discharges are contact and non-contact cooling water, rinse water, wash water, etc.). Non-storm water discharges that meet the conditions provided in Special Condition D of the general storm water permit are authorized by this Permit. The SWPPP must include BMPs to prevent or reduce contact of non-storm water discharges with significant materials or equipment.

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

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

VII. ASSESSMENT OF POTENTIAL POLLUTANT SOURCES

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

1. Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and

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

B. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

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

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VIII. STORM WATER BEST MANAGEMENT PRACTICES

The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (sections VI and VII above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

TABLE B

EXAMPLE
ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES
SUMMARY

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery. Spills caused by topping off fuel tanks. Hosing or washing down fuel oil fuel area. Leaking storage tanks. Rainfall running off fuel oil, and rainfall running onto and off fueling area.	fuel oil	Use spill and overflow protection. Minimize run-on of storm water into the fueling area. Cover fueling area. Use dry cleanup methods rather than hosing down area. Implement proper spill prevention control program. Implement adequate preventative maintenance program to preventive tank and line leaks. Inspect fueling areas regularly to detect problems before they occur. Train employees on proper fueling, cleanup, and spill response techniques.

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

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

A. Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-

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structural BMPs options before considering additional structural BMPs (see section VIII.B below). Below is a list of non-structural BMPs that should be considered:

1. **Good Housekeeping.** Good housekeeping generally consists of practical procedures to maintain a clean and orderly facility.
2. **Preventive Maintenance.** Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.
3. **Spill Response.** This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.
4. **Material Handling and Storage.** This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.
5. **Employee Training.** This includes training of personnel who are responsible for (1) implementing activities identified in the SWPPP, (2) conducting inspections, sampling, and visual observations, and (3) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.
6. **Waste Handling/Recycling.** This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.
7. **Recordkeeping and Internal Reporting.** This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.
8. **Erosion Control and Site Stabilization.** This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.
9. **Inspections.** This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.
10. **Quality Assurance.** This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

B. Structural BMPs.

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

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

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2. **Retention Ponds.** This includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow storm water to discharge from the facility.
3. **Control Devices.** This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.
4. **Secondary Containment Structures.** This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.
5. **Treatment.** This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc. that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

IX. ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION

The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1-June 30). Evaluations shall be conducted within 8-16 months of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following:

A. A review of all visual observation records, inspection records, and sampling and analysis results.

B. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.

C. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.

D. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule, as required in section X.E, for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and (vi) a certification that the facility operator is in compliance with this Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this General Permit. The evaluation report shall be submitted as part of the annual report, retained for at least five years, and signed and certified in accordance with Standard Provisions V.D.5 of Attachment D.

X. SWPPP GENERAL REQUIREMENTS

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

B. 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.

C. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm

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water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.

D. The SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this Permit.

E. When any part of the SWPPP is infeasible to implement due to proposed significant structural changes, the facility operator shall submit a report to the 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 storm water discharges and authorized non-storm water 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.

F. 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.

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ATTACHMENT H – STATE WATER BOARD MINIMUM LEVELS

The Minimum Levels identified in this attachment represent the lowest concentration of a pollutant that can be quantitatively measured in a sample given the current state of performance in analytical chemistry methods in California. These Minimum Levels were derived from data provided by state-certified analytical laboratories in 1997 and 1998 for pollutants regulated by the California Ocean Plan and shall be used until new values are adopted by the State Water Board. There are four major chemical groupings: volatile chemicals, semi-volatile chemicals, inorganics, pesticides & PCBs. "No Data" is indicated by "—".

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TABLE II-1
MINIMUM LEVELS – VOLATILE CHEMICALS

Volatile Chemicals	CAS Number	Minimum* Level (µg/L)	
		GC Method[a]	GCMS[b]
Acrolein	107028	2.	5
Acrylonitrile	107131	2.	2
Benzene	71432	0.5	2
Bromoform	75252	0.5	2
Carbon Tetrachloride	56235	0.5	2
Chlorobenzene	108907	0.5	2
Chlorodibromomethane	124481	0.5	2
Chloroform	67663	0.5	2
1,2-Dichlorobenzene (volatile)	95501	0.5	2
1,3-Dichlorobenzene (volatile)	541731	0.5	2
1,4-Dichlorobenzene (volatile)	106467	0.5	2
Dichlorobromomethane	75274	0.5	2
1,1-Dichloroethane	75343	0.5	1
1,2-Dichloroethane	107062	0.5	2
1,1-Dichloroethylene	75354	0.5	2
Dichloromethane	75092	0.5	2
1,3-Dichloropropene (volatile)	542756	0.5	2
Ethyl benzene	100414	0.5	2
Methyl Bromide	74839	1.	2
Methyl Chloride	74873	0.5	2
1,1,2,2-Tetrachloroethane	79345	0.5	2
Tetrachloroethylene	127184	0.5	2
Toluene	108883	0.5	2
1,1,1-Trichloroethane	71556	0.5	2
1,1,2-Trichloroethane	79005	0.5	2
Trichloroethylene	79016	0.5	2
Vinyl Chloride	75014	0.5	2

Table II-1 Notes

a) GC Method = Gas Chromatography
b) GCMS Method = Gas Chromatography / Mass Spectrometry
* To determine the lowest standard concentration in an instrument calibration curve for these techniques, use the given ML (see Ocean Plan, Chapter III, "Use of Minimum Levels").

TABLE II-2
MINIMUM LEVELS – SEMI VOLATILE CHEMICALS

Semi-Volatile Chemicals	CAS Number	Minimum* Level (µg/L)			
		GC Method[a]	GCMS Method[b]	HPLC Method[c]	COLOR Method[d]
Acenaphthylene	208968	--	10	0.2	--
Anthracene	120127	--	10	2	--
Benzidine	92875	--	5	--	--
Benzo(a)anthracene	56553	--	10	2	--
Benzo(a)pyrene	50328	--	10	2	--
Benzo(b)fluoranthene	205992	--	10	10	--
Benzo(g,h,i)perylene	191242	--	5	0.1	--
Benzo(k)fluoranthene	207089	--	10	2	--
Bis2-(1-Chloroethoxy) methane	111911	--	5	--	--
Bis(2-Chloroethyl)ether	111444	10	1	--	--
Bis(2-Chloroisopropyl)ether	39638329	10	2	--	--
Bis(2-Ethylhexyl) phthalate	117817	10	5	--	--
2-Chlorophenol	95578	2	5	--	--
Chrysene	218019	--	10	5	--
Di-n-butyl phthalate	84742	--	10	--	--
Dibenzo(a,h)-anthracene	53703	--	10	0.1	--
1,2-Dichlorobenzene (semivolatile)	95504	2	2	--	--
1,3-Dichlorobenzene (semivolatile)	541731	2	1	--	--
1,4-Dichlorobenzene (semivolatile)	106467	2	1	--	--
3,3-Dichlorobenzidine	91941	--	5	--	--
2,4-Dichlorophenol	120832	1	5	--	--
1,3-Dichloropropene	542756	--	5	--	--
Diethyl phthalate	84662	10	2	--	--
Dimethyl phthalate	131113	10	2	--	--
2,4-Dimethylphenol	105679	1	2	--	--
2,4-Dinitrophenol	51285	5	5	--	--
2,4-Dinitrotoluene	121142	10	5	--	--
1,2-Diphenylhydrazine	122667	--	1	--	--
Fluoranthene	206440	10	1	0.05	--
Fluorene	86737	--	10	0.1	--
Hexachlorobenzene	118741	5	1	--	--
Hexachlorobutadiene	87683	5	1	--	--
Hexachlorocyclopentadiene	77474	5	5	--	--
Hexachloroethane	67721	5	1	--	--
Indeno(1,2,3-cd)pyrene	193395	--	10	0.05	--
Isophorone	78591	10	1	--	--
2-methyl-4,6-dinitrophenol	534521	10	5	--	--
3-methyl-4-chlorophenol	59507	5	1	--	--
N-nitrosodi-n-propylamine	621647	10	5	--	--
N-nitrosodimethylamine	62759	10	5	--	--
N-nitrosodiphenylamine	86306	10	1	--	--

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Semi-Volatile Chemicals	CAS Number	Minimum* Level (µg/L)			
		GC Method[a]	GCMS Method[b]	HPLC Method[c]	COLOR Method[d]
Nitrobenzene	98953	10	1	--	--
2-Nitrophenol	88755	--	10	--	--
4-Nitrophenol	100027	5	10	--	--
Pentachlorophenol	87865	1	5	--	--
Phenanthrene	85018	--	5	0.05	--
Phenol	108952	1	1	--	50
Pyrene	129000	--	10	0.05	--
2,4,6-Trichlorophenol	88062	10	10	--	--

Table II-2 Notes

a) GC Method = Gas Chromatography
b) GCMS Method = Gas Chromatography / Mass Spectrometry
c) HPLC Method = High Pressure Liquid Chromatography
d) COLOR Method = Colorimetric
* To determine the lowest standard concentration in an instrument calibration curve for this technique, multiply the given ML by 1000 (see Ocean Plan, Chapter III, "Use of Minimum Levels").

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TABLE II-3
MINIMUM* LEVELS – INORGANICS

Inorganic Substances	CAS Number	Minimum* Level (µg/L)								
		COLOR Method[a]	DCP Method[b]	FAA Method[c]	GFAA Method[d]	HYBRIDE Method[e]	ICP Method[f]	ICPMS Method[g]	SPGFAA Method[h]	CVAA Method[i]
Antimony	7440360	--	1000	10	5	0.5	50	0.5	5	--
Arsenic	7440382	20	1000	--	2	1	10	2	2	--
Beryllium	7440417	--	1000	20	0.5	--	2	0.5	1	--
Cadmium	7440439	--	1000	10	0.5	--	10	0.2	0.5	--
Chromium (total)	--	--	1000	50	2	--	10	0.5	1	--
Chromium (VI)	18540299	10	--	5	--	--	--	--	--	--
Copper	7440508	--	1000	20	5	--	10	0.5	2	--
Cyanide	57125	5	--	--	--	--	--	--	--	--
Lead	7439921	--	10000	20	5	--	5	0.5	2	--
Mercury	7439976	--	--	--	--	--	--	0.5	--	0.2
Nickel	7440020	--	1000	50	5	--	20	1	5	--
Selenium	7782492	--	1000	--	5	1	10	2	5	--
Silver	7440224	--	1000	10	1	--	10	0.2	2	--
Thallium	7440280	--	1000	10	2	--	10	1	5	--
Zinc	7440666	--	1000	20	--	--	20	1	10	--

Table II-3 Notes

a) COLOR Method = Colorimetric
b) DCP Method = Direct Current Plasma
c) FAA Method = Flame Atomic Absorption
d) GFAA Method = Graphite Furnace Atomic Absorption
e) HYDRIDE Method = Gaseous Hydride Atomic Absorption
f) ICP Method = Inductively Coupled Plasma
g) ICPMS Method = Inductively Coupled Plasma / Mass Spectrometry
h) SPGFAA Method = Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
i) CVAA Method = Cold Vapor Atomic Absorption

* To determine the lowest standard concentration in an instrument calibration curve for these techniques, use the given ML (see Ocean Plan, Chapter III, “Use of Minimum* Levels”).

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TABLE II-4
MINIMUM* LEVELS – PESTICIDES AND PCBS*

Pesticides – PCBs	CAS Number	Minimum* Level (µg/L)
		GC Method[a]
Aldrin	309002	0.005
Chlordane	57749	0.1
4,4'-DDD	72548	0.05
4,4'-DDE	72559	0.05
4,4'-DDT	50293	0.01
Dieldrin	60571	0.01
a-Endosulfan	959988	0.02
b-Endosulfan	33213659	0.01
Endosulfan Sulfate	1031078	0.05
Endrin	72208	0.01
Heptachlor	76448	0.01
Heptachlor Epoxide	1024573	0.01
a-Hexachlorocyclohexane	319846	0.01
b-Hexachlorocyclohexane	319857	0.005
d-Hexachlorocyclohexane	319868	0.005
g-Hexachlorocyclohexane (Lindane)	58899	0.02
PCB1016	--	0.5
PCB1221	--	0.5
PCB1232	--	0.5
PCB1242	--	0.5
PCB1248	--	0.5
PCB1254	--	0.5
PCB1260	--	0.5
Toxaphene	8001352	0.5

Table II-4 Notes

a) GC Method = Gas Chromatography
* To determine the lowest standard concentration in an instrument calibration curve for these techniques, use the given ML (see Ocean Plan, Chapter III, "Use of Minimum Levels").

REVISED TENTATIVE