



California Regional Water Quality Control Board

Los Angeles Region



Winston H. Hickox
Secretary for
Environmental
Protection

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Gray Davis
Governor

August 11, 2000

Mr. Gerald A. Gewe
Assistant General Manager - Water
Department of Water and Power
City of Los Angeles
P.O. Box 51111
Los Angeles, CA 90051-0100

Dear Mr. Gewe:

WASTE DISCHARGE REQUIREMENTS – CITY OF LOS ANGELES DEPARTMENT OF WATER AND POWER, SCATTERGOOD GENERATING STATION (NPDES PERMIT NO. CA0000370, CI-1886)

Our letter dated May 16, 2000, transmitted tentative requirements for the renewal of your waste discharge requirements for your discharge to surface water.

Pursuant to Division 7 of the California Water Code, this Regional Board, at a public hearing held on June 29, 2000, reviewed the tentative requirements, considered all comments received, and adopted Order No. 00-083 (copy enclosed) for your waste discharge. Order No. 00-083 serves as your permit under the National Pollutant Discharge Elimination System (NPDES) and expires on May 10, 2005. Section 13376 of the California Water Code requires that an application for a new permit must be filed at least 180 days before the expiration date.

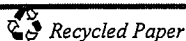
Please note the following changes made by the Board during the hearing:

1. Reopener language added after the first paragraph in Section II.N (Page 15) of the Requirements and Provisions
2. Typographical Corrections in M&RP:

Page T-7: Changed Item III to IV.

Page T-10: Changed Item III.D to IV.C.
3. The Board adopted all the changes proposed by staff in the change sheets that were faxed to you prior to the hearing, except for the proposed changes to Items IV.C.3 and IV.C.4.c. of the Monitoring and Reporting Program.

California Environmental Protection Agency



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

4. Additional language added in the Monitoring and Reporting Program (M&RP):
- Page T-7, Item III.C: Added at the end of first sentence....."for a period of two years following the effective date of this permit."
- Page T-7, Item III.C: Added a new sentence at the end of paragraph....."The Executive Officer is empowered to continue such monitoring at his reasonable discretion."
- Page T-10, Item IV.C.2: Deleted the last two words of the first paragraph....."when possible".

You are required to implement the M&RP on the effective date of Order No. 00-083. The dates that the monitoring and annual reports must be received at the Regional Board Office are provided in the M&RP. Submit all monitoring reports and annual reports to the Regional Board, Attn: Information Technology Unit. When submitting monitoring, technical reports, or any correspondence regarding the discharge under Order No. 00-083 to the Regional Board, please include a reference to our Compliance File No. CI 1886 to assure that the reports are directed to the appropriate staff and file. Please do not combine your discharge monitoring reports with other reports. Submit each type of report as a separate document

If you have any questions, please contact me at (213) 576-6651 or Mazhar Ali at (213) 576-6652.

Sincerely,



WINNIE D. JESENA, P.E.
Chief, Los Angeles Coastal
Watershed Unit

Enclosures

cc: See attached mailing list

MAILING LIST

Environmental Protection Agency, Region IX, Permit Section (WTR-5)
U.S. Army Corps of Engineer
U.S. Fish and Wildlife Services, Division of Ecological Services
NOAA, National Marine Fisheries Service
Jorge Leon, Office of Chief Counsel, State Water Resources Control Board (SWRCB)
John Youngerman, Division of Water Quality, SWRCB
California Department of Fish and Game, Marine Resources, Region 5
California Coastal Commission, South Coast District
Los Angeles County, Department of Public Works, Waste Management Division
Jack Petralia, Department of Health Services, Los Angeles County
Los Angeles County, Lifeguard Association
City of Los Angeles, Bureau of Engineering, Wastewater System Engineering Division
City of Los Angeles, Bureau of Sanitation, Industrial Waste Management
Water Replenishment District of Southern California
City of El Segundo, Department of Public Works
City of Hermosa Beach, Department of Public Works
City of Manhattan Beach, Department of Public Works
City of Redondo Beach, Department of Public Works
City of Santa Monica, Department of Public Works
City of Torrance, Department of Public Works
County Sanitation Districts of Los Angeles County
David Beckman, Natural Resources Defense Council
Joan Hartman, American Ocean Campaign
Mark Gold, Heal the Bay
Mel Nutter, League for Coastal Protection
Marina Del Rey Anglers
Terry Tamminen, Environment Now
Steve Fleischli, Santa Monica BayKeeper
Sierra Club
Surfriders Foundation
Southern California Coastal Water Research Project
Bill Gibson, L.A. Weekly

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

**ORDER NO. 00-083
NPDES NO. CA0000370**

**WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
(Scattergood Generating Station)**

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

1. The City of Los Angeles Department of Water and Power (Discharger) discharges wastes from the Scattergood Generating Station under waste discharge requirements contained in Order No. 95-029, adopted by the Regional Board on February 27, 1995. This Order serves as the National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0000370).
2. The Discharger has filed a Report of Waste Discharge and has applied for renewal of its waste discharge requirements and NPDES permit.
3. The Discharger operates the Scattergood Generating Station, a plant consisting of three steam electric generating units with a design capacity of 820 megawatts (MW), located at 12700 Vista Del Mar, Los Angeles, California. The plant discharges up to 496 million gallons per day (mgd) of wastes consisting of once-through cooling water, pretreated metal cleaning wastes, low volume inplant wastes, cooling tower blowdown, and storm water run-off into Santa Monica Bay (Pacific Ocean), a water of the United States, near Dockweiler State Beach in El Segundo. The wastes are discharged through an outfall (Discharge Serial No. 001) located about 1,200 feet offshore, at a depth of 15 feet Mean Lower Low Water (MLLW) (Latitude: 33° 55' 00"; Longitude: 118° 26' 02").

Cooling water is drawn from Santa Monica Bay, through a single 12 feet internal diameter conduit which extends approximately 1,600 feet offshore. The conduit is equipped with a velocity cap to deter marine life from entering the system.

Figure 1 shows the location map of the facility.

4. The waste characteristics listed in the Report of Waste Discharge are shown in Table 1 on Page 3.
5. Chemical cleaning wastes, consisting of boiler acid rinses, is periodically generated, collected, and treated with alkaline chemicals in portable storage tanks. The treated effluent is sent to settling basins where it mixes with low volume waste streams. Low volume waste streams consist of floor drain water (after passing through an oil/water separator),

May 16, 2000
Rev. June 29, 2000

nonchemical metal cleaning wastes (boiler and preheater wash waters), reverse osmosis brine, boiler and evaporator blowdown, condensate polisher regeneration wastes, laboratory drains, and other low volume wastewaters generated in the plant. Residues in the basins and the portable tanks are periodically hauled away to legal disposal sites.

Cooling tower blowdown is sent directly to the outfall. Storm water runoff is collected in a separate sump and is pumped to the outfall.

Figure 2 shows the schematic diagram of the wastewater flow.

6. The Discharger controls marine fouling of the cooling water conduits (intake and discharge) by temporarily recirculating (thus increasing the temperature) 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 the intake point becomes the discharge point). This procedure (referred to as "heat treatment") is typically conducted every two (2) months for a duration of about two (2) to six (6) hours for all the three generating units.

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

7. To control biological growths (defouling), the condenser tubes (arranged in two banks per generating unit, each bank is called a condenser half) are treated by intermittently injecting exclusively chlorine (in the form of sodium hypochlorite), or a combination of chlorine and sodium bromide into the cooling water system. The condenser halves are currently chlorinated for 40 minutes per chlorination cycle, with a maximum of three chlorination cycles each day, resulting in a total chlorination time of two hours for each unit. The total maximum chlorinated effluent discharge duration from Outfall 001 is approximately six hours.
8. Section 316(b) of the Federal Clean Water Act (Clean Water Act) requires that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impacts.

In accordance with Federal and State guidelines for Section 316(b) of the Clean Water Act, the Discharger conducted a study from 1977 to 1981 to determine whether the location, design, construction, and capacity of the cooling water intake structures reflected the best technology available for minimizing impacts. The study, completed in December 1981, adequately addressed the important ecological and engineering factors specified in the guidelines, demonstrated that the ecological impacts of the intake system are environmentally acceptable, and provided evidence that no modifications to design, location, or capacity of the intake structure are required.

TABLE 1

Discharge Serial No.		001
Generating Units Served		1, 2, & 3
Diameter, (feet)		12
Outfall Distance Offshore (feet)		1,200
Depth of Terminus, (feet below Mean Lower Low Water)		15
Latitude		33° 55' 00"
Longitude		118° 26' 02"
Maximum Temperature, (°F)	Winter (October to April)	78
	Summer (May to September)	94
	Heat Treatment/Gate Adjustments	125/135
Waste Streams (mgd)	Once-through Cooling Water	495.36
	Chemical Metal Cleaning Wastes* (Units 1-3)	0.014
	Low Volume Wastes*	
	• Floor Drain Wastes	0.01
	• Boiler Blowdown	0.004
	• Fireside and Air Preheater Wastes	0.17
	• Reverse Osmosis Brine	
	• Condensate Polisher Regeneration	0.02
	• Stormwater Run-off	0.03
• Chemical Laboratory Drains		
Total Maximum Flow, mgd		495.6

* These flows are intermittent.

9. On November 19, 1982, the U. S. Environmental Protection Agency (USEPA) promulgated Effluent Guidelines and Standards for the Steam Electric Power Generating Point Source Category (40 Code of Federal Regulations (CFR) Part 423). These regulations prescribe effluent limitation guidelines for once-through cooling water and various inplant waste streams.

40 CFR 423.12(a) provides that effluent limitations, either more or less stringent than the USEPA standards, may be prescribed if factors relating to the equipment or facilities involved, the process applied, or other such factors are found to be fundamentally different from the factors considered in the establishment of the standards.

10. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan incorporates by reference the State Water Resources Control Board's (State Board) water quality control plans and policies on ocean waters [*Water Quality Control Plan for Ocean Waters In California*, March 22, 1990], temperature [*Water Quality Control Plan for Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California*, amended September 18, 1975], and the antidegradation policy [*Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Board Resolution No. 68-16, October 28, 1968].

11. The Basin Plan contains water quality objectives for, and lists the following beneficial uses of, waterbodies in the El Segundo/LAX sub-watershed area:

Dockweiler Beaches (Hydrologic Unit 405.12)

Existing: industrial service supply, navigation, water contact recreation, non-contact water recreation, commercial and sport fishing, marine habitat, and wild habitat.

Potential: spawning, reproduction, and/or early development.

Nearshore Zone

Existing: industrial service supply, navigation, water contact recreation, non-contact water recreation, commercial and sport fishing, marine habitat, wild habitat, preservation of biological habitats, rare, threatened, or endangered species, and migration of aquatic organisms.

Offshore Zone

Existing: industrial service supply, navigation, water contact recreation, non-contact water recreation, commercial and sport fishing, marine habitat, wild habitat, migration of aquatic organisms, and spawning, reproduction, and/or early development.

The requirements in this Order are intended to protect the beneficial uses and enhance the water quality of the watershed.

12. The Santa Monica Bay Restoration Project (SMBRP) (1994) identified the pollutants of concern for the El Segundo subwatershed as heavy metals (cadmium, chromium, copper, lead, nickel, silver, zinc), debris, pathogens, oil and grease, chlordane, and polycyclic aromatic hydrocarbons (PAHs).
13. The 1998 California 303(d) List, approved by the USEPA on May 12, 1999, identified the following as pollutants of concern for Santa Monica Bay (Offshore and Nearshore): dichloro-diphenyl trichloroethane (DDT), polychlorinated biphenyls (PCBs), PAHs, chlordane, heavy metals (cadmium, copper, lead, mercury, nickel, silver, zinc), and debris.
14. On July 23, 1997, the State Board adopted a revised the *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan). The revised plan contains water quality objectives for coastal waters of California. This Order includes effluent and receiving water limitations, prohibitions, and provisions that implement the objectives of the Ocean Plan.
15. On May 18, 1972 (amended on September 18, 1975), the State 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). The Thermal Plan contains temperature objectives for the Pacific Ocean. The narrative objective of the Thermal Plan states that elevated temperatures of wastes discharged shall comply with limitations necessary to assure protection of the beneficial uses.
16. To determine compliance with the Thermal Plan and in accordance with Regional Board specifications, the Discharger conducted a thermal effect study that was completed in 1973. The study demonstrated that wastes discharged at temperature levels prescribed in this Order have no adverse impacts on the beneficial uses of the receiving waters. Thus, the power plant with temperature discharges prescribed in this Order is in compliance with the Thermal Plan and Section 316 of CWA.
17. At times of peak demand during defouling treatment, residual chlorine levels in the once-through cooling water have exceeded the effluent limitation based on 40 CFR Part 423 guidelines (0.20 mg/L) and the Ocean Plan objective. However, chlorination bioassay studies (1987) performed by the Discharger showed no significant adverse impact on the receiving waters as a result of the discharge from the plant.

Pursuant to Clean Water Act Section 301(g), in April 1984 the Discharger submitted a request to the USEPA for a variance from the 40 CFR Part 423 effluent chlorine limitation. In September 1984, the Discharger further requested an Ocean Plan exception for the total residual chlorine (TRC) effluent limitation from the 1983 Ocean Plan objectives.. In July 1988, the State Board adopted Resolution No. 88-80 that granted a permanent exception from the 1983 Ocean Plan for TRC. The Regional Board and the State Board approved the variance request and forwarded it to the USEPA in August 1988 for concurrence.

18. On May 13, 1998, the USEPA approved the Discharger's request for a variance from Best Available Technology Economically Achievable (BAT) for TRC pursuant to Section 301(g) of the Clean Water Act with the following conditions:
 - a. The effluent from Outfall 001 must meet an effluent limitation of 0.436 mg/L TRC (instantaneous maximum) based on daily sampling at Outfall 001 during periods of chlorination.
 - b. The whole effluent from Outfall 001 must meet a chronic toxicity limit of 10.7 TU_c (daily maximum) using state-approved test species and methods as specified in the NPDES permit. The chronic toxicity tests, which are conducted quarterly, must be representative of actual discharge conditions (at a minimum) or of the Proposed Modified Effluent Limitations (PMEL) conditions. 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 three months' chlorination events. Alternatively, the samples may be chlorinated to the PMEL concentrations (unless the maximum TRC concentration from the previous three months exceeds the PMEL concentration). All other procedures shall be consistent with the monitoring requirements in the Ocean Plan and NPDES permit. This requirement to chlorinate samples in the laboratory applies only if the chlorine concentrations recorded during the previous three months exceed the BAT limit of 0.2 mg/L.
 - c. In the event the effluent chronic toxicity limitation is exceeded, the Discharger shall increase the monitoring frequency from quarterly to monthly until compliance has been demonstrated for three months in accordance with NPDES permit No. CA0000370. If the chronic toxicity limit is exceeded again during the accelerated monitoring period, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) in order to identify and eliminate the source(s) of toxicity. The TRE shall be conducted in accordance with USEPA's most current TRE and Toxicity Identification Evaluation (TIE) test methods.
 - d. This 301 (g) approval can be reviewed and revised by USEPA at any time if subsequent information indicates that the PMEL will not result in compliance with all 301 (g) criteria. This information includes but is not limited to subsequent chronic toxicity test results and TIE/TRE findings indicating that the discharge of TRC at concentrations greater than the BAT limit of 0.2 mg/L results in exceedance of toxicity limit.
19. Since the approval of the 301 (g) variance in 1998, the Discharger's results of chronic toxicity testing of effluent samples artificially spiked with chlorine in the laboratory at the maximum chlorine level (0.436 mg/L) allowed has been consistent at 1 TU_c by the 301 (g) variance. The toxicity results of 1 were below the Ocean Plan based limit of 10.7 TU_c for Discharge Outfall No. 001.

In 1987 in coordination with the Southern California Edison Company, the Discharger conducted a study on the concentrations of chlorine measured in the receiving water during chlorination of the condensers. The study was done in response to State Board's concerns prior to issuance of State Board's Resolution 88-80 (see Finding No. 17). The study showed that chlorine was not detected outside the zone of initial dilution during a chlorination event.

20. Based on the results of approximately ten years of chronic toxicity testing data at the approved 301g limit and the findings of the 1987 study of residual chlorine concentrations in the receiving water (Finding No.20), the February 27, 1995 permit requirement to conduct a receiving water residual chlorine study has been fulfilled.
21. In accordance with the February 27, 1995, NPDES permit (Footnote No. 3., Item II.A.1., Monitoring and Reporting Program CI-1886), the Discharger conducted a study on May 18, 1995, to determine the time during the chlorination cycle of peak residual chlorine concentration in the ocean discharge to ensure that compliance monitoring samples for TRC were collected at the time of highest chlorine level in the stations' combined effluent. The results of the study indicated that the maximum chlorine concentration occurs 34 minutes after the start of chlorination cycle. The study confirmed that the Discharger's existing sampling procedures were appropriate.
22. This Regional Board has implemented a Watershed Management Approach to address water quality protection in the region. The objective is to provide a comprehensive and integrated strategy towards water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically defined drainage basin or watershed. It emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available. This Order supports the implementation of this approach.
23. Several efforts are underway to develop and implement a comprehensive regional monitoring regional program for the Southern California Bight, in particular, the Santa Monica Bay. These efforts have the support and participation from regulatory agencies, dischargers and environmental groups. The goal is to establish a regional program to address public health concerns, monitor trends in natural resources and nearshore habitats, and assess regional impacts from all contaminant sources, and at the same time assess compliance with the NPDES permit. The monitoring program in this Order has not been changed from that of the previous permit. To reflect future regional program events, the monitoring program in this Order will be revised when the regional monitoring program has been completed.
24. The SMBRP developed the Bay Restoration Plan, 1994, that serves as a blueprint for the restoration and enhancement of the Bay. The Regional Board plays a leading role in the implementation of the plan. Two of the proposed priorities of the Bay Restoration Plan are reduction of pollutants of concern at the source (which includes power plants) and implementation of the mass emission approach.

25. Effluent limitations based on Ocean Plan objectives were calculated using a minimum dilution ratio (i.e., parts sea water to one part effluent) of 9.7 to 1 for Discharge Serial No. 001, except for residual chlorine which is 10.7 to 1. These ratios were based on calculations made by the Discharger and approved by the State Board (transmitted to the Regional Board in a State Board memorandum dated February 4, 1985)
26. For toxic constituents regulated in the California Ocean Plan (Table B) which the Discharger does not add or produce in the treatment process and/or waste streams, no numerical limits are prescribed. Also, no numerical limits are prescribed for toxic constituents which are added, but whose usage has shown that there is very low probability of causing or contributing to excursions of the water quality standards. However, a narrative limit to comply with all California Ocean Plan objectives is provided.
27. Acute toxicity monitoring conducted over five years (1990 through 1994 – no testing was required after 1995) demonstrated consistent compliance with, and no reasonable potential for exceeding the Ocean Plan objectives. As such, no monitoring requirements were prescribed for acute toxicity. However, a narrative limit to comply with all Ocean Plan objectives is provided.
28. Pursuant to Section 402(p) of the Clean Water Act and 40 CFR Parts 122, 123, and 124, the State Board adopted general NPDES permits to regulate Discharges of Storm Water Associated with Industrial Activities (State Board Order No. 97-03-DWQ adopted on April 17, 1997). Storm water discharges from power plants are subject to requirements under this general permit. The Discharger has developed and implemented a Storm Water Pollution Prevention Plan since 1995.
29. Effluent limitations and guidelines, national standards of performance, and toxic effluent standards established pursuant to Sections 301, 302, 303, 304, 306, 307, and 316 of the Federal Clean Water Act, and amendments thereto, are applicable to the discharge.
30. The requirements contained in this Order, as they are met, will be in conformance or in compliance with the goals of the aforementioned water quality control plans and statutes.
31. Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, P.O. Box 100, 901 P St., Sacramento 95812, within 30 days of adoption.
32. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code in accordance with California Water Code Section 13389.

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

The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.

This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Clean Water Act or amendments thereto, and shall take effect at the end of ten days from the date of its adoption provided the Regional Administrator, USEPA Region 9, has no objections.

IT IS HEREBY ORDERED that City of Los Angeles Department of Water and Power (Scattergood Generating Station), in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

I. DISCHARGE LIMITATIONS

A. EFFLUENT LIMITATIONS

1. Wastes discharged shall be limited to those described in the findings only, as proposed.
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. The effluent pH shall at all times be within the range of 6.0 to 9.0 pH units.
4. The discharge of wastes from Discharge Serial No. 001 in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>DISCHARGE LIMITATIONS^[1]</u>	
		<u>Monthly Average</u>	<u>Daily Maximum</u>
Total residual chlorine ^[2]	mg/L	---	0.436
Free available chlorine	mg/L kg/day	0.2 258	---
Arsenic	µg/L	57	313
Cadmium	µg/L	11	43

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
Chromium ^[3] (hexavalent)	µg/L	21	86
Copper	µg/L	13	109
Lead	µg/L	21	86
Mercury	µg/L	0.4	1.71
Nickel	µg/L	54	214
Selenium	µg/L	161	642
Silver	µg/L	6	28
Zinc	µg/L	136	778
Chronic Toxicity ^[4]	TU _c	-----	10.7

Radioactivity Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3 Article 3, Section 30269, California Code of Regulations.

[1] Concentration limits are based on the Ocean Plan objectives using a dilution ratio of 9.7 parts of seawater to 1 part effluent, except for chlorine.

[2] Based on the U. S. EPA approved variance from BAT for TRC pursuant to Section 301(g) of the CWA based on daily sampling at Discharge Serial No. 001 during periods of chlorination. Total residual chlorine may not be discharged from any single generating unit for more than 2 hours per day. For chlorine discharges of up to 40 minutes, the daily maximum limit is 0.436 mg/L. For chlorine discharges exceeding 40 minutes, the applicable total residual chlorine limitations shall be calculated using the same methodology as was used to support the State Ocean Plan exception.

[3] The discharger has the option to meet the hexavalent chromium limitations with a total chromium analysis. However, if the total chromium level exceeds the hexavalent chromium limitation, it will be considered a violation unless an analysis has been performed for hexavalent chromium in a replicate sample and the result is in compliance with the hexavalent chromium limits.

[4] Expressed as Chronic Toxicity Units (TU_c)

$$TU_c = 100/NOEC$$

where: NOEC (No Observed Effect Concentration) is expressed as the maximum percent effluent or receiving water that causes no observable

effect on a test organism as determined by the result of a critical life stage toxicity test listed in Appendix II of the California Ocean Plan adopted and effective on July 23, 1997, pages 23-24. NOEC shall be determined based on toxicity tests having chronic endpoints.

5. Effluent Limitations for Inplant Waste Streams:

- a. The discharge of chemical metal cleaning wastes^[5] with constituents in excess of the following limits is prohibited:

DISCHARGE LIMITATIONS^[5]

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
Suspended solids	mg/L	30	100
Oil and grease	mg/L	15	20
Copper, total	mg/L	1.0	1.0
Iron, total	mg/L	1.0	1.0

[5] For the purpose of these limitations, chemical metal cleaning wastes shall mean any wastewater resulting from chemical cleaning of any metal process equipment including, but not limited to boiler acid rinses.

- b. The discharge of low volume wastes with constituents in excess of the following limits is prohibited:

DISCHARGE LIMITATIONS

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
Suspended solids	mg/L	30	100
Oil and grease	mg/L	15	20

- c. The discharge of pollutants in cooling tower blowdown in excess of the following is prohibited:

DISCHARGE LIMITATIONS

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
Chromium, Total	mg/L	0.2	0.2
Zinc, Total	mg/L	1.0	1.0
Priority Pollutants	µg/l	NDA ^[6]	NDA ^[6]

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

- d. In the event that waste streams from various sources (7.a, 7.b and 7.c) are combined for treatment or discharge, the quantity of each pollutant or pollutant property controlled attributable to each controlled waste source shall not exceed the specified limitation for that waste source.

B RECEIVING WATER LIMITATIONS

1. Floating particulates and oil and grease shall not be visible as a result of wastes discharged.
2. Wastes discharged shall not: alter the color of the receiving waters; create a visual contrast with the natural appearance of the water; nor cause esthetically undesirable discoloration of the ocean surface.
3. The transmittance of natural light shall not be significantly reduced at any point outside the zone of initial dilution as a result of wastes discharged.
4. The rate of deposition and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded as a result of wastes discharged.
5. The wastes discharged shall not depress the dissolved oxygen concentrations outside the zone of initial dilution at any time by more than 10 percent from that which occurs naturally, excluding effects of naturally induced upwelling.
6. The wastes discharged shall not change the pH of the receiving waters at any time more than 0.2 pH units from that which occurs naturally outside the zone of initial dilution.
7. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions as a result of wastes discharged.
8. The wastes discharged shall not increase the concentrations, in marine sediments of toxic substances listed in Table B of the Ocean Plan, to levels which would degrade indigenous biota.
9. The concentration of organic materials in marine sediments shall not be increased above that which would degrade marine life as a result of waste discharged.
10. The wastes discharged shall not cause objectionable aquatic growths or degrade indigenous biota.
11. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded as a result of wastes discharged.

12. 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 as a result of wastes discharged.
13. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered as a result of wastes discharged.
14. The wastes discharged shall not cause objectionable odors to emanate from the receiving waters.
15. The wastes discharged shall not cause receiving waters to contain any substance in concentrations toxic to human, animal, plant, or fish life.
16. No physical evidence of wastes discharged shall be visible at any time in the water or on beaches, shores, rocks, or structures.
17. The salinity of the receiving waters shall not be changed by the wastes discharged to an extent such as to be harmful to marine biota.
18. The wastes discharged shall not contain an individual pesticide or combination of pesticides in concentrations that adversely affect beneficial uses.

II. REQUIREMENTS AND PROVISIONS

- A. Discharge of unpermitted wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
- B. The Discharger shall comply with all applicable effluent limitations, national standards of performance, and all federal regulations established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, and 402 of the Federal Clean Water Act and amendments thereto.
- C. In determining compliance with monthly average limitations, the following provisions shall apply to all constituents:
 1. If the analytical result of a single sample, monitored monthly or at a lesser frequency, does not exceed the monthly average limit for that constituent, the Discharger will have demonstrated compliance with the monthly average limit for that month.
 2. If the analytical result of a single sample, monitored monthly or at a lesser frequency, exceeds the monthly average limit for any constituent, the Discharger shall collect three additional samples at approximately equal intervals during the month. All four analytical results shall be reported in the monitoring report for that month, or 45 days after the sample was obtained, whichever is later.

If the numerical average of the analytical results of these four samples does not exceed the monthly average limit for that constituent, compliance with the monthly average limit has been demonstrated for that month. Otherwise, the monthly average limit has been violated.

3. In the event of noncompliance with a monthly average effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the monthly average effluent limitation has been demonstrated.
 4. If only one sample was obtained for the month or more than a monthly period and the result exceed the monthly average, then the Discharger is in violation of the monthly average limit.
- D. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management programs developed to comply with NPDES permits issued by this Regional Board to local agencies.
 - E. This Order includes the attached *Standard Provisions and General Monitoring and Reporting Requirements (March 1, 1999)* (Standard Provisions, Attachment N). If there is any conflict between provisions stated hereinbefore and said Standard Provisions, those provisions stated hereinbefore prevail.
 - F. This Order includes the attached Monitoring and Reporting Program (Attachment T). If there is any conflict between provisions stated in the Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the Monitoring and Reporting Program prevail.
 - G. The Discharger shall review at a minimum on an annual basis the Storm Water Pollution Prevention Plan and upgrade and implement best management practices as appropriate.
 - H. The wastes discharged shall comply with all Ocean Plan objectives.
 - I. 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. This requirement is not applicable to products used for lawn and agricultural purposes. Discharge of chlorine for disinfection in plant potable and service water systems and in sewage treatment is authorized.
 - J. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream which ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.

- K. There shall be no discharge of polychlorinated biphenyl compounds such as those once commonly used for transformer fluid.
- L. The Discharger shall notify the Executive Officer in writing no later than six months prior to planned discharge of any chemical, other than chlorine or other product previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:
- ◆ Name and general composition of the chemical,
 - ◆ Frequency of use,
 - ◆ Quantities to be used,
 - ◆ Proposed discharge concentrations, and
 - ◆ USEPA registration number, if applicable.

No discharge of such chemical shall be made prior to obtaining the approval of the Executive Officer.

- M. The Regional Board and USEPA shall be notified immediately by telephone of the presence of adverse conditions in the receiving waters or on beaches and shores as a result of wastes discharged. Written confirmation shall follow as soon as possible but not later than five working days after the Discharger became aware of the adverse condition.
- N. This Order may be modified, revoked and reissued, or terminated in accordance with the provisions of 40 CFR Parts 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this Order and permit; 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 and issuance.

Following submission of the intake benthic monitoring study, the Executive Officer shall either (1) propose to the Regional Board modifications to this permit, as appropriate, or (2) provide a report to the Regional Board summarizing the results of the study and indicating why modifications to the permit are not proposed.

The filing of a request by the Discharger for an order and permit modification, revocation and issuance, or termination; or a notification of planned changes or anticipated noncompliances does not stay any condition of this Order and permit.

III. EXPIRATION DATE

This Order expires on May 10, 2005.

The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

IV. RESCISSION

Order No. 95-029, adopted by this Board on February 27, 1995 is hereby rescinded, except for enforcement purposes.

I, Dennis A Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on June 29, 2000.



Dennis A. Dickerson
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. CI-1886
FOR
CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
Scattergood Generating Station
(CA0000370)

I. MONITORING AND REPORTING PROGRAM

- A. The Discharger shall implement this monitoring program on the effective date of this Order. Effluent monitoring reports shall be submitted monthly, by the first day of the second month following each monthly sampling period. The first monitoring report under this program shall be received by the Regional Board by September 1, 2000, covering the monitoring period of July 2000.
- B. Quarterly effluent analyses shall be performed during the months of February, May, August, and November. Semiannual effluent analyses shall be performed during the months of May and November. Annual effluent analyses shall be performed during the month of May. Results of quarterly, semiannual, and annual analyses shall be reported in the appropriate monthly monitoring report following analysis. Should there be instances when monitoring could not be done during these specified months, the Discharger must notify the Regional Board, state the reason the monitoring could not be conducted, and obtain approval for an alternate schedule.
- C. All chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer. A copy of the laboratory certification shall be submitted with the annual summary report.
- D. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136.3. All Quality Assurance/Quality Control (QA/QC) items must be run on the same dates that samples are actually analyzed, and the results shall be reported in the Regional Board format and submitted with the laboratory reports. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the report.

- E. The report of analyses shall specify the USEPA analytical method used and its Method Detection Limit (MDL). For the purpose of reporting compliance with effluent limitations, and receiving water limitations, analytical data shall be reported with an actual numerical value or "non-detected (ND)" with the MDL indicated for the analytical method used.
- F. The MDLs must be lower than the permit limits established for a given parameter, unless the Discharger can demonstrate that a particular detection limit is not attainable and obtains approval for a higher detection limit from the Executive Officer. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and the associated laboratory QA/QC procedures.
- G. The Discharger shall inform the Regional Board well in advance of any construction activity proposed that could potentially affect compliance with applicable requirements.

II. SUBMITTAL OF MONITORING AND ANNUAL REPORTS

- A. All monitoring and annual summary reports must be addressed to the Regional Board, Attention: Information Technology Unit. Reference the reports to Compliance File No. CI-1886 to facilitate routing to the appropriate staff and file.
- B. The Discharger shall submit an annual summary report containing a discussion of the previous year's effluent analytical results, as well as graphical and tabular summaries of the data. The data shall be submitted to the Regional Board on hard copy and on 3 1/2" computer diskette. The submitted data must be IBM compatible, preferably using Microsoft Excel software.

In the annual summary report, the Discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with waste discharge requirements. The annual summary report must be received at the Regional Board on or before March 1 of each year following the calendar year of data collection.

- C. Database Management System: The Regional Board is developing a database compliance monitoring management system that may require the Discharger to submit the monitoring and annual reports electronically when it becomes fully operational.

III. EFFLUENT AND INTAKE COOLING WATER MONITORING

A. Sampling stations shall be established at each point of discharge and shall be located where representative samples of the effluent can be obtained. The following shall constitute the effluent monitoring program for Discharge Serial No. 001:

1. Wastewater Constituents/Parameters

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Total waste flow ^[1]	gal/day	---	daily
Temperature ^[1]	^o F	continuous	---
pH	pH units	grab	weekly
Total residual chlorine ^[2]	mg/L	grab ^[3]	daily
Free available chlorine ^[2]	mg/L	grab ^[3]	daily
Toxicity, chronic ^[4,5,6,]	TU _c	grab	quarterly
Ammonia nitrogen	μg/L	grab	annually
Nitrate nitrogen	mg/L	grab	annually
Radioactivity ^[7]	pCi/ml	grab	annually
Priority pollutants (See page T-13)	μg/L	grab	[8]

[1] Where continuous monitoring of temperature, and flow is required, the following shall be included in the report:

Temperature: Only the maximum temperature for each calendar day shall be reported, except when temperatures exceed 105^oF, in which case the reason(s), time of day, and duration of such events shall also be reported.

Flow: Total daily flow.

[2] 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.

[3] 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.

[4] Initial screening shall be conducted using a minimum of three test species with approved test protocols listed in the California Ocean Plan (State Water Resources Control Board, 1997) to determine the most sensitive test organism for chronic toxicity testing (other test species may be added to the Ocean Plan list when approved by the State Board). If possible, the test species used during the screening process should include a fish, an invertebrate, and an aquatic plant.

After the initial screening period, chronic toxicity testing may be limited to the most sensitive test species. However, the initial screening process shall be repeated annually, with a minimum of three test species with approved test protocols to ensure use of the most sensitive species for chronic toxicity testing.

Dilution and control waters should be obtained from an unaffected area of the receiving waters. Standard dilution water may be used if the above source exhibits toxicity greater than 1.0 TU_c. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each batch of bioassay tests and reported with the test results.

- [5] Chronic toxicity shall be expressed and reported as toxic units, where:

$$TU_c = 100/NOEC$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test described on Pages 23-24 of the Ocean Plan.

The effluent tests shall be conducted with concurrent reference toxicant tests. Both the reference toxicant and effluent test must meet all protocols. If the test acceptability criteria is not achieved, then the Discharger must re-sample and re-test within 14 days. The Discharger shall submit the data on a hard copy and on an electronic disk as specified in Suggested Standard Reporting Requirements for Monitoring Chronic Toxicity (SWRCB, August 1993).

- [6] In the event of an exceedance of the chronic toxicity effluent limitation, the sampling frequency shall be increased to monthly until compliance has been demonstrated for three consecutive months. If the discharge consistently exceeds the chronic toxicity effluent limitation, a toxicity identification evaluation (TIE) is required. The TIE shall include all reasonable steps to identify the source(s) of toxicity. Once the source of toxicity is identified, the Discharger shall take all reasonable steps necessary to reduce toxicity (TRE) to the required level.

The chronic toxicity test must be representative of actual discharge conditions (at a minimum) or of the alternate PMEL 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 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.

- [7] Radioactivity determinations of gross and net beta activity, in picocuries per liter, shall be made within 48 hours following preparation of samples. The overall efficiency of the counting system, size of sample, and counting time shall be such that radioactivity can be determined to a sensitivity of ten picocuries per liter with a 95% confidence limit not to exceed 50 percent.

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

- [8] Once every five years beginning in 2002.

2. Metals

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Antimony	µg/L	grab	semi-annually
Arsenic	µg/L	grab	semi-annually
Beryllium	µg/L	grab	semi-annually
Chromium (III)	µg/L	grab	semi-annually
Hexavalent chromium	µg/L	grab	semi-annually
Cadmium	µg/L	grab	semi-annually
Copper	µg/L	grab	semi-annually
Lead	µg/L	grab	semi-annually
Mercury	µg/L	grab	semi-annually
Nickel	µg/L	grab	semi-annually
Selenium	µg/L	grab	semi-annually
Silver	µg/L	grab	semi-annually
Thallium	µg/L	grab	semi-annually
Zinc	µg/L	grab	semi-annually

B. The effluent monitoring program for Inplant Waste Streams is as follows:

1. Chemical Metal Cleaning Wastes:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Flow ^[9]	mgd	---	monthly
pH	pH units	grab	monthly
Suspended solids	mg/L	grab	monthly
Oil and grease	mg/L	grab	monthly
Copper, total	mg/L	grab	monthly
Iron, total	mg/L	grab	monthly

[9] If no discharge occurred during the month, the report shall so state.

2. Non-Chemical Metal Cleaning Wastes:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Flow ^[9]	mgd	---	monthly
pH	pH units	grab	monthly
Suspended solids	mg/L	grab	monthly
Oil and grease	mg/L	grab	monthly
Copper ^[10]	mg/L	grab	monthly
Iron ^[10]	mg/L	grab	monthly

[9] If no discharge occurred during the month, the report shall so state.

[10] Dissolved metal fractions only.

3. Cooling Tower Blowdown:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Flow ^[9]	gal/day	flow meter	monthly
Chromium	mg/L	grab	monthly
Zinc	mg/L	grab	monthly
Priority Pollutant	µg/L	grab	quarterly ^[11]

[9] If no discharge occurred during the month, the report shall so state.

[11] A statement certifying that this pollutant was not added to the waste stream during the reporting period may be submitted in lieu of the analytical result for this parameter.

4. Low Volume Wastes :

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Flow ^[9]	mgd	---	monthly
pH	pH units	grab	monthly
Suspended solids	mg/L	grab	monthly
Oil and grease	mg/L	grab	monthly
Priority pollutants	µg/L	grab	annually ^{[12] [13]}

[9] If no discharge occurred during the month, the report shall so state.

[12] Consist of discharge from Settling/Retention Basin and/or Holding Tanks consisting of treated metal cleaning waste, non-chemical cleaning waste, floor drain water, reverse osmosis brine, boiler and evaporator blowdown, condenser polisher regeneration wastes, laboratory drains, and other low volume waste generated in the plant.

[13] During the first two years of discharge, after adoption of permit, monitoring for these constituents

shall be on a quarterly basis. Thereafter, the frequency of sampling shall be according to that specified in this program.

C. Intake Cooling Water Monitoring Program

The intake cooling water shall be analyzed for metals as listed in III.A.2 above semi-annually for a period of two years following the effective date of this permit. The sampling and analyses for both effluents and intake cooling water shall be performed at the same time. The Executive Officer is empowered to continue such monitoring at his reasonable discretion.

IV. RECEIVING WATER MONITORING

A. Regional Monitoring Program

1. Pursuant to the Code of Federal Regulation [40 CFR §122.41(j) and §122.48(b)], the monitoring program for a discharger receiving a National Pollutant Elimination System (NPDES) permit must determine compliance with NPDES permit terms and conditions, and demonstrate that State water quality standards are met.
2. Since compliance monitoring focuses on the effects of a point source discharge, it is not designed to assess impacts from other sources of pollution (e.g., nonpoint source runoff, aerial fallout) nor to evaluate the current status of important ecological resources on a regional basis.
3. Several efforts are underway to develop and implement a comprehensive regional monitoring program for the Southern California Bight, in particular the Santa Monica Bay. These efforts have the support and participation from regulatory agencies, dischargers and environmental groups. The goal is to establish a regional program to address public health concerns, monitor trends in natural resources and nearshore habitats, and assess regional impacts from all contaminant sources. In general, the goal is a more efficient monitoring program that can be used for both compliance and regional bight-wide assessments.
4. The compliance monitoring programs for the City of Los Angeles Department of Water and Power, 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.
5. Two pilot regional monitoring programs for the Southern California Bight were conducted, one in 1994, and another in 1998. The pilot monitoring allowed the USEPA and the Regional Board to test an alternative sampling design that incorporates aspects of regional monitoring into current compliance programs. These pilot programs were designed by USEPA, the State Water Resources

Control Board, and three Regional Water Quality Control Boards (Los Angeles, Santa Ana, and San Diego) in conjunction with the Southern California Coastal Water Research Project and participating discharger agencies.

The pilot regional monitoring programs included the following components: microbiology; water quality; sediment chemistry; sediment toxicity testing; benthic infauna; demersal fish; and bioaccumulation.

6. The two pilot regional monitoring programs were funded, in large part, by resource exchanges with the participating discharger agencies. During the year when pilot regional monitoring was scheduled, USEPA 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 and 1998 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 USEPA and this Regional Board as necessary to accomplish the goal; and may include resource exchange in the number of parameters monitored, the frequency of monitoring, or the number, type, size and location of samples collected.

7. The results of the pilot programs are being evaluated and will be used to design future pilot monitoring programs and to develop a comprehensive regional monitoring program for the Southern California Bight. At the same time, the monitoring programs conducted by other dischargers and agencies will be integrated into this regional program. If predictable relationships among the biological, water quality, and effluent monitoring variables can be demonstrated, it may be appropriate to decrease the sampling effort. Conversely, the monitoring program may be intensified if it appears that the objectives cannot be achieved through the existing compliance monitoring program.
8. The Receiving Water Monitoring Program in this Order is similar to that in the 1995 NPDES permit. Until such time when a regional monitoring program is developed (projected for 2002), and with the exception of future pilot regional monitoring program sampling periods, the Discharger shall perform the analyses described in the following receiving water monitoring program.

B. Receiving Water Monitoring

The receiving water monitoring program 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 El Segundo Power, LLC, in connection with the receiving water monitoring program for the El Segundo Generating Station.

Location of Sampling Stations (see Attached Figure 3):

1. Receiving water stations shall be located as follows:

- a. RW1 - 7,875 feet upcoast of the Scattergood discharge terminus, at a depth of 20 feet.
- b. RW2 - 1,000 feet upcoast of the Scattergood discharge terminus, at a depth of 20.
- c. RW3 - 1,750 feet downcoast of the El Segundo discharge terminus, at a depth of 20 feet.
- d. RW4 - 9,900 feet downcoast of the El Segundo discharge terminus, at a depth of 20 feet.
- e. RW5 - directly offshore of Station RW1, at a depth of 40 feet.
- f. RW6 - directly offshore of Station RW2, at a depth of 40 feet.
- g. RW7 - directly offshore of station RW3, at a depth of 40 feet.
- h. RW8 - directly offshore of Station RW4, at a depth of 40 feet.
- i. RW9 - directly offshore of Station RW1, at a depth of 60 feet.
- j. RW10 - directly offshore of Station RW2, at a depth of 60 feet.
- k. RW11 - directly offshore of Station RW3, at a depth of 60 feet.
- l. RW12 - directly offshore of Station RW4, at a depth of 60 feet.

2. Benthic stations shall be located as follows:

Stations B1 through B8 shall be located directly beneath Stations RW1 through RW8, respectively.

C. Type and Frequency of Sampling:

1. Temperature profiles shall be measured semi-annually (summer and winter) each year at Stations RW1 through RW12 from surface to bottom at a minimum of one meter intervals. Dissolved oxygen levels and pH shall be measured semi-annually at the surface, mid-depth and bottom at each station, at a minimum. All stations shall be sampled on both a flooding tide and an ebbing tide during each semi-annual survey.
2. Impingement sampling for fish and commercially important macroinvertebrates shall be conducted semi-annually at Intake No. 001. Impingement sampling shall coincide with heat treatments.

Fish and macroinvertebrates shall be identified to the lowest possible taxon. For each intake point, 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.

3. 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. The mussels shall be collected and analyzed as described in Appendix A of the "California State Mussel Watch Marine Water Quality Monitoring Program 1985-86" (Water Quality Monitoring Report No. 87-2WQ). Mussel tissue shall be analyzed for copper, chromium, nickel, and zinc at a minimum.
4. Benthic sampling shall be conducted annually during the summer at Stations B1 through B8.
 - a. One liter sediment core samples shall be collected by divers at each of the benthic stations for biological examination and determination of biomass and diversity, and for sediment analyses. Four replicates shall be obtained at each station for benthic analyses, and each shall be analyzed separately. A fifth sample shall be taken at each station for sediment analyses and general description.
 - b. Each benthic replicate sample shall be sieved through a 0.5 mm standard mesh screen. All organisms recovered shall be enumerated and identified

to the lowest taxon possible. Infaunal organisms shall be reported as concentrations per liter for each replicate and each station. Total abundance, number of species and Shannon-Weiner diversity indices shall be calculated (using natural logs) for each replicate and each station.

Biomass shall be determined as the wet weight in grams or milligrams retained on a 0.5 millimeter screen per unit volume (e.g., 1 liter) of sediment. Biomass shall be reported for each major taxonomic group (e.g., polychaetes, crustaceans, mollusks) for each replicate and each station.

- c. Sediment grain size analyses shall be performed on each sediment sample (sufficiently detailed to calculate percent weight in relation to phi size). Sub samples (upper two centimeters) shall be taken from each sediment sample and analyzed for copper, chromium, nickel and zinc.
5. The following general observations or measurements at the receiving water and benthic stations shall be reported.
 - a. Tidal stage and time of monitoring.
 - b. General water conditions.
 - c. Extent of visible turbidity or color patches.
 - d. Appearance of oil films or grease, or floatable material.
 - e. Depth at each station for each sampling period.
 - f. Presence or absence of red tide.
 - g. Presence of marine life.
 - h. Presence and activity of the California least tern and the California brown pelican.
 6. During discharge of calcareous material (not including heat treatments) 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 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 material 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 tern and the California brown pelican

SUMMARY OF RECEIVING WATER MONITORING

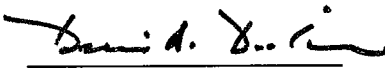
Minimum

<u>Constituent</u>	<u>Units</u>	<u>Station No.</u>	<u>Type of Sample</u>	<u>Frequency of Analysis</u>
Temperature	°C	RW1-RW12	vertical profile	semi-annually (flood, ebb)
Dissolved oxygen	mg/L	RW1-RW12	vertical profile	semi-annually (flood, ebb)
pH	pH units	RW1-RW12	vertical profile	semi-annually (flood, ebb)
Fish and macro invertebrates	---	Intakes No. 001	impingement	bi-monthly
Mussels	---	Discharge	tissue	annually
Benthic infauna	---	B1-B8	grab	annually
Sediments	---	B1-B8	grab	annually

The receiving water monitoring report containing the results of semiannual and annual monitoring shall be received at the Regional Board on March 1 of each year following the calendar year of data collection.

V. STORM WATER MONITORING AND REPORTING

The Discharger shall continue to maintain and implement Storm Water Pollution Prevention Plan as required in the Permit Provisions (Order No. 00-083).

Ordered By: 
 Dennis A. Dickerson
 Executive Officer

Date: June 29, 2000