Linda S. Adams
Agency Secretary

California Regional Water Quality Control Board

Los Angeles Region

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Arnold Schwarzenegger
Governor

ORDER NO. R4-2006-0068
NPDES NO. CA0061191

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Discharger	Southern California Edison Co.
Name of Facility	Pebbly Beach Desalination Plant
Facility Address	1 Pebbly Beach Road
	Avalon, CA 90704
	Los Angeles County

The Discharger is authorized to discharge from the following discharge points as set forth below:

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Reverse Osmosis Brine, Filter Backwash, Untreated Seawater	33º 20' 01.9" N	118º 18' 34.7" W	Pacific Ocean

This Order was adopted by the Regional Water Board on:	September 14, 2006
This Order shall become effective on:	October 14, 2006
This Order shall expire on:	August 10, 2011
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Board have classified this discharge as a minor discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, **not later than 180 days in advance of the Order expiration date** as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that Order No. 89-117 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Jonathan S. Bishop, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on September 14, 2006.

ORIGINAL SIGNED BY

_____
Jonathan S. Bishop, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 4, LOS ANGELES REGION

ORDER NO. R4-2006-0068
NPDES NO. CA0061191

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I. FACILITY INFORMATION

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Table 1
Facility Information

Discharger	Southern California Edison Co.
Name of Facility	Pebbly Beach Desalination Plant
Facility Address	1 Pebbly Beach Road
	Avalon, CA 90704
	Los Angeles County
Facility Contact, Title, and Phone	Dr. David Kay, Manager of Environmental Projects, (626) 302-2149
Mailing Address	2244 Walnut Grove Ave., Rosemead, CA 91770
Type of Facility	Desalination Plant
Facility Design Flow	0.720 Million Gallons per Day (MGD) (Reverse Osmosis Brine)

II. FINDINGS

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

A. **Background**. Southern California Edison Co. (hereinafter SCE or Discharger) is currently discharging under Order No. 89-117 and a National Pollutant Discharge Elimination System (NPDES) Permit No. CA0061191. The Discharger submitted a Report of Waste Discharge, dated December 19, 2003. Supplemental information was received on March 30, 2004. The Discharger applied for a NPDES permit renewal to discharge up to 0.720 MGD of reverse osmosis brine, filter backwash, and untreated seawater from Pebbly Beach Desalination Plant, hereinafter Facility.

B. **Facility Description.** SCE constructed the Pebbly Beach Desalination Plant (Plant) in late 1980s to augment the fresh water supply on Santa Catalina Island during an extended period of drought. SCE owns and operates the desalination plant for supply of drinking water to the City of Avalon at Santa Catalina Island. The plant is located within the confines of one of its existing diesel-electric generating station facilities (Pebbly Beach Generating Station) on Pebbly Beach Road, Santa Catalina Island, Los Angeles County. Saltwater is pumped from two separate wells that were installed three years back at the rock quarry, approximately one mile southeast of the desalination plant. The desalination system consist of two saltwater supply wells, three multi-media filter units, two microfiltration units, four modular reverse osmosis units, chlorination equipment, and a product water storage tank which also serves as a chlorine contact chamber. Any freshwater produced that is not immediately used will be stored in a storage tank. Reverse osmosis brine, filter backwash, and untreated seawater is discharged from Discharge Point No. 001 (see Table on cover page) through a rip rap slope to the Pacific Ocean, a water of the United States. Attachment B provides a topographic map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. **Legal Authorities.** This Order is issued pursuant to section 402 of the Federal CWA and implementing regulations adopted by the USEPA and Chapter 5.5, Division 7 of the CWC. It shall serve as a NPDES permit for point source discharges from this Facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.

D. **Background and Rationale for Requirements**. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. Attachments A through F, which contain background information and rationale for Order requirements, are hereby incorporated into this Order and, thus, constitute part of the Findings for this Order.

E. **California Environmental Quality Act (CEQA).** This action to adopt a NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

F. **Technology-based Effluent Limitations.** The Code of Federal Regulations (CFR) at 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on Best Professional Judgment (BPJ) in accordance with 40 CFR §125.3. A detailed discussion of

the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

G. **Water Quality-based Effluent Limitations.** Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter.

An analysis of dilution for discharges from Pebbly Beach Desalination Plant was conducted by the State Water Board. The State Water Board found that rapid initial dilution is occurring at the point of discharge. The State Water Board and Regional Water Board, based on the data provided, concluded that a dilution factor of five is applicable for this discharge. The mixing zone is defined as the water column immediately adjacent to and within the rip-rap seawall where initial mixing occurs. Immediately adjacent is defined as the portion of ocean waters extending approximately 3 feet from the shoreline. The dilution factor is applied to all WQBELs contained in the Order. The dilution analysis is discussed in greater detail in the Fact Sheet, Attachment F.

H. **Water Quality Control Plans.** In accordance with legislative policy set forth in Section 13000 of Division 7 of the CWC, and pursuant to the authority contained in Section 13170 and 13170.2 the State Water Board adopted a revised Ocean Plan on November 16, 2000. The revised Ocean Plan became effective on December 3, 2001. The Ocean Plan was amended in April 2005 to address reasonable potential and Areas of Special Biological Significance. The Ocean Plan contains water quality objectives and beneficial uses for the ocean waters of California. The beneficial uses of State ocean waters to be protected are summarized below:

Table 2
Ocean Plan Beneficial Uses
of the Pacific Ocean

Discharge Point	Receiving Water Name	Beneficial Use
Outfall 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 Migration; Fish Spawning and Shellfish Harvesting

In order to protect these beneficial uses, the Ocean Plan establishes water quality objectives (for bacterial, physical, chemical, and biological characteristics, and for radioactivity), general requirements for management of waste discharged to the ocean, quality requirements for waste discharges (effluent quality requirements), discharge prohibitions, and general provisions.

Thermal Plan. The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of*

California (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for coastal waters.

L. **Antidegradation Policy.** Section 131.12 of 40 CFR requires that 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 No. 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution No. 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. This Order has allowed for a dilution factor of five to be applied to the applicable WQBELs. The dilution factor was calculated by the State Water Board as explained in the Fact Sheet and is considered protective of water quality criteria, objectives, and beneficial uses. Thus, the application of the dilution factor to the applicable WQBELs is not expected to degrade water quality. As discussed in detail in the Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution No. 68-16.

M. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR §122.44(l) prohibit 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. Effluent limitations in the Order have been revised or removed in accordance with 40 CFR §122.44(i)(B)(1).

N. **Monitoring and Reporting.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The MRP establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.

O. **Standard and Special Provisions.** Standard Provisions, which in accordance with 40 CFR §§122.41and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).

P. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards become effective for CWA purposes (40 CFR §131.21, 65 FR 24641, April 27, 2000). Under USEPA's new regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

Q. **Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F) of this Order.

R. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (Attachment F) of this Order.

III. DISCHARGE PROHIBITIONS

A. Wastes discharged shall be limited to a maximum of 0.720 MGD of reverse osmosis brine, filter backwash, and untreated seawater as described in the findings. 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. The discharge of pollutants shall not create a pollution, contamination, or nuisance as defined by Section 13050 of the CWC.

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

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

F. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

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

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point No. 001

1. Final Effluent Limitations – Discharge Point No. 001

a. The discharge of reverse osmosis and filter backwash shall maintain compliance with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location M-001 as described in the attached MRP (Attachment E):

Table 3
Final Effluent Limitations
Discharge Point No. 001

Parameters	Units	Effluent Limitations					
		6-Month Median	Average Monthly	7-Day Average	Daily Maximum	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand (BOD) (5-day @ 20 Deg. C)	mg/L	--	20	--	60	--	--
Oil and Grease	mg/L	--	10	--	15	--	--
pH	Units	--	--	--	--	6.0	9.0
Total Suspended Solids	mg/L	--	50	--	150	--	--
Arsenic, Total Recoverable	µg/L	33	--	--	177	--	465
Cadmium, Total Recoverable	µg/L	6	--	--	24	--	60
Copper, Total Recoverable	µg/L	8	--	--	62	--	170
Lead, Total Recoverable	µg/L	12	--	--	48	--	120
Mercury, Total Recoverable	µg/L	0.24	--	--	0.96	--	2.4
Nickel, Total Recoverable	µg/L	30	--	--	120	--	300

T E N T A T I V E

Parameters	Units	Effluent Limitations				
		6-Month Median	Average Monthly	7-Day Average	Daily Maximum	Instantaneous Minimum	Instantaneous Maximum
Selenium, Total Recoverable	µg/L	90	--	--	360	--	900
Silver, Total Recoverable	µg/L	3.4	--	--	16	--	41.2
Zinc, Total Recoverable	µg/L	80	--	--	440	--	1,160
Bis (2-ethylhexyl) Phthalate	µg/L	--	21	--	--	--	--
Settleable Solids	ml/L	--	0.1	--	0.3	--	--
Turbidity	NTU	--	50	100	150	--	--

V. RECEIVING WATER LIMITATIONS

Unless specifically excepted by this Order, the discharge, by itself or jointly with any other discharge(s), shall not cause violation 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.

A. Bacterial Characteristics

1. 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 Regional Water Board, but including all kelp beds, the following bacterial objectives shall be maintained throughout the water column.

    a. Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml).

    b. The fecal coliform density, based on a minimum of not less than five samples for any 30-day period, shall not exceed a geometric mean of 200 per 100 ml nor shall more than 10 percent of the total samples during any 60-day period exceed 400 per 100 ml.

2. The Initial Dilution Zone 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.

3 At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70 per 100 ml throughout the water column, 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.

2. The discharge of waste shall not 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.

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 B 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.

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

7. Numerical water quality objectives established in Chapter II, Table B 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**

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 of this Order.

2. **Regional Water Board Standard Provisions.** The Discharger shall comply with the following provisions:

   a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 40 CFR §§ 122.44, 122.62, 122.63, 122.64, 125.62 and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this Order; endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly-obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

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

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

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

   e. 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:

(1) Violation of any term or condition contained in this Order;
(2) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
(3) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

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

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

k. The Discharger shall file with the Regional Water Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.

l. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Water Board as soon as they know or have reason to believe that they have begun or expect to begin to use or manufacture intermediate or final product or byproduct of any toxic pollutant that was not reported on their application.

m. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify this Regional Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Regional Water Board.

n. The CWC provides that any person who violates a waste discharge requirement or a provision of the CWC is subject to civil penalties of up to $5,000 per day, $10,000 per day, or $25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to $10 per gallon per day or $25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

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

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

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

q. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to 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:

(1) Name and general composition of the chemical,
(2) Frequency of use,
(3) Quantities to be used,
(4) Proposed discharge concentrations, and
(5) USEPA registration number, if applicable.

B. Monitoring and Reporting Program Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order. If there is any conflict between provisions stated in the MRP and the Regional Water Board Standard Provisions, those provisions stated in the MRP shall prevail.

C. Special Provisions

1. Reopener Provisions

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

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

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

d. This Order may be reopened and modified to revise effluent limitations as a result of future Ocean Plan Amendments.

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

2. **Special Studies, Technical Reports and Additional Monitoring Requirements**

a. **Chronic Toxicity Trigger and Monitoring Requirements.** The Order contains a chronic toxicity trigger defined as an exceedance of 6.0 TU_c in a critical life stage test for 100% effluent (The daily maximum for chronic toxicity of 100% effluent shall not exceed, 6 TU_c in a critical life stage test.). The Discharger shall monitor the effluent semi-annually for chronic toxicity to determine the presence of chronic toxicity. If the chronic toxicity of the effluent exceeds 6.0 TU_c (defined in Section V.A of the MRP, Attachment E), the Discharger shall immediately implement accelerated chronic toxicity testing, as required in Section V of the MRP, Attachment E).

b. **Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.** The Discharger shall submit to the Regional Water Board an Initial Investigation Toxicity Reduction Evaluation (TRE) workplan (1-2 pages) **within 90 days** of the effective date of this permit. This plan shall describe the steps the permittee intends to follow in the event that toxicity is detected, and should include at a minimum:

1) A description of the investigation and evaluation techniques that will be used to identify potential causes/sources of toxicity, effluent variability, and treatment system efficiency;
2) A description of the facility's method of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility;
3) If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor) (Section V of the MRP, Attachment E) provides references for the guidance manuals that should be used for performing TIEs).

3. **Bis (2-ethylhexyl) Phthalate Source Evaluation and Control Study**

The Discharger is required to conduct and submit to the Regional Water Board, within 90-days of the adoption of this Order, a Source Evaluation and Control Study for bis (2-ethylhexyl) phthalate. The study should evaluate the potential sources of bis (2-ethylhexyl) phthalate and determine how to comply with the established effluent limitations immediately.

If the source of bis (2-ethylhexyl) phthalate is determined to be improper sampling, handling, or analysis techniques, the Discharger must specify how they will ensure that future laboratory sampling, sample handling, and sample analysis for bis(2-ethylhexyl)phthalate accurately and precisely represent the Discharger's final effluent.

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

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

B. **Effluent Limitations Expressed as a Sum of Several Constituents.**
If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.

C. **Effluent Limitations Expressed as a Median.**
In determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and

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

2. If the number of measurements (n) is even, then the median will be calculated as = $[X_{n/2} + X_{(n/2)+1}]$, i.e. the midpoint between the n/2 and n/2+1 data points.

D. **Mass-based Effluent Limitations.**
In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for "Not Detected" (ND) and the estimated concentration for "Detected, but Not Quantified" (DNQ) for the calculation of the monthly average concentration. If all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant concentrations should be considered as zero for the calculation of the monthly average concentration.

E. **Average Monthly Effluent Limitation (AMEL).**
If the average of daily discharges over a calendar month exceeds the AMEL 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 non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

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

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

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

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

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

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

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

F. **Maximum Daily Effluent Limitation (MDEL).**
If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

G. **Instantaneous Minimum Effluent Limitation.**
If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

H. **Instantaneous Maximum Effluent Limitation.**
If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

ATTACHMENT A – DEFINITIONS, ACRONYMS, AND ABBREVIATIONS

DEFINITIONS

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.

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.

Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

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

µg/L: micrograms per Liter

mg/L: milligrams per Liter

MGD: million gallons per day

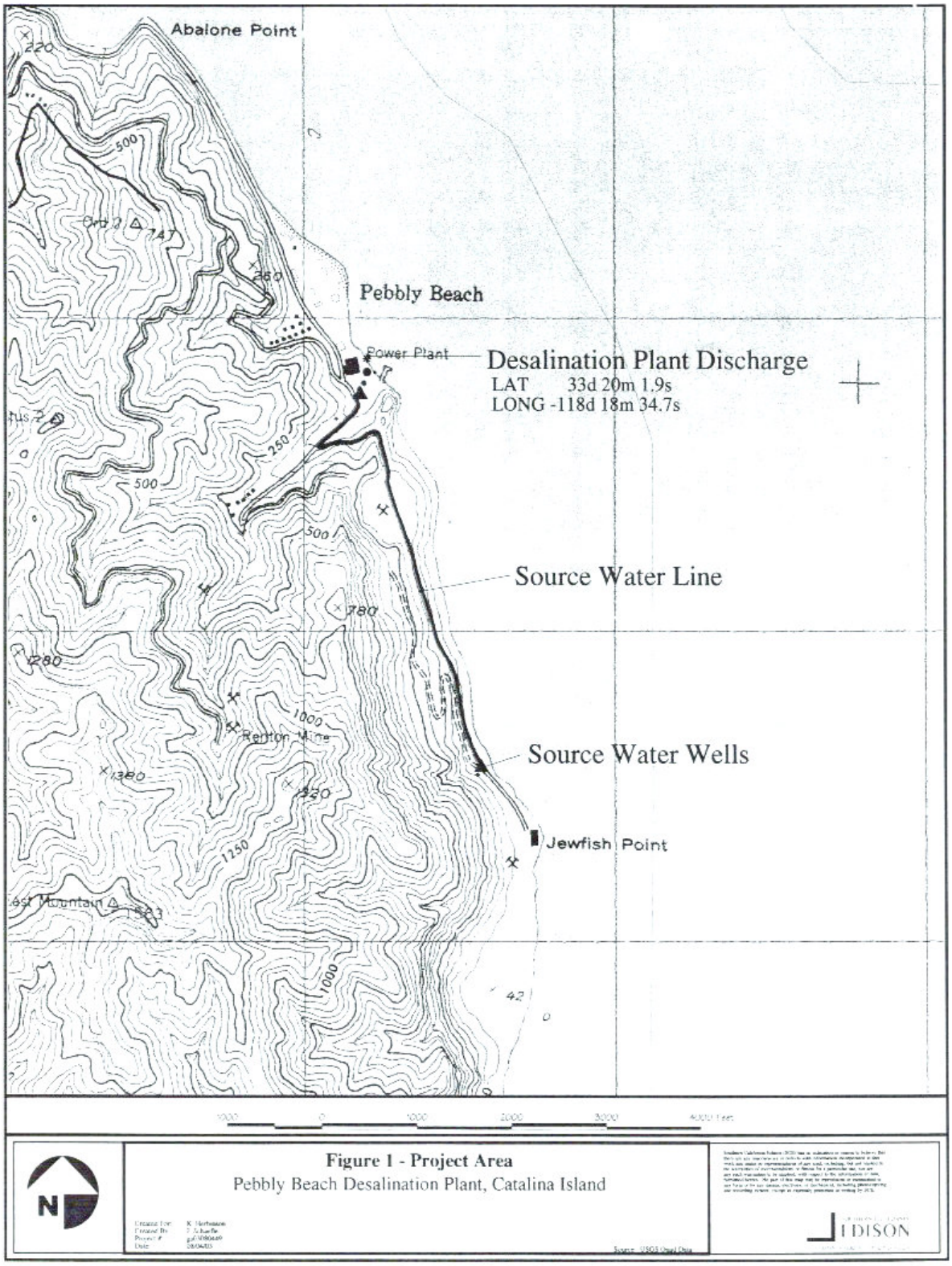
Six-month Median Effluent Limitation: the highest allowable moving median of all daily discharges for any 180-day period.

ACRONYMS AND ABBREVIATIONS

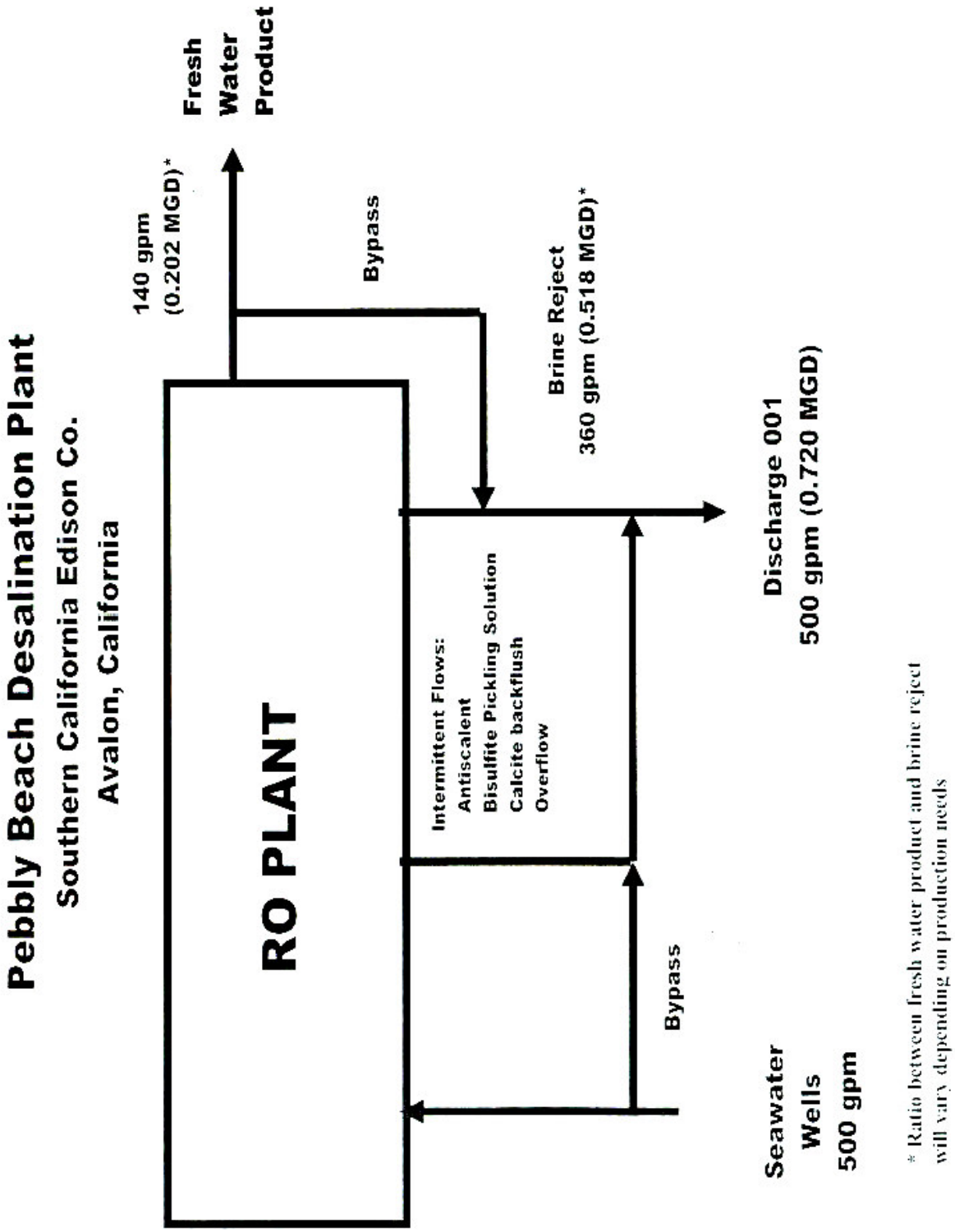
AMEL	Average Monthly Effluent Limitation
B	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	*Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practice
BMPPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-day @ 20 ℃
BPT	Best Practicable Treatment Control Technology
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
Discharger	Southern California Edison Co.
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Health Services Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Facility	Pebbly Beach Desalination Plant
gpd	gallons per day
IC	Inhibition Coefficient
IC_{15}	Concentration at which the organism is 15% inhibited
IC_{25}	Concentration at which the organism is 25% inhibited
IC_{40}	Concentration at which the organism is 40% inhibited
IC_{50}	Concentration at which the organism is 50% inhibited
LA	Load Allocations
LOEC	Lowest Observed Effect Concentration
µg/L	micrograms per Liter
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MEC	Maximum Effluent Concentration
MGD	Million Gallons per Day
ML	Minimum Level
MRP	Monitoring and Reporting Program
ND	Not Detected
NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NTR	National Toxics Rule
OAL	Office of Administrative Law
PMEL	Proposed Maximum Daily Effluent Limitation
PMP	Pollutant Minimization Plan
POTW	Publicly Owned Treatment Works

QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
Ocean Plan	*Water Quality Control Plan for Ocean Waters of California*
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
RPA	Reasonable Potential Analysis
SCP	Spill Contingency Plan
SIP	State Implementation Policy (*Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California)*
SMR	Self Monitoring Reports
State Water Board	California State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	Test Acceptability Criteria
Thermal Plan	*Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California*
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TRE	Toxicity Reduction Evaluation
TSD	Technical Support Document
TSS	Total Suspended Solid
TU_c	Chronic Toxicity Unit
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WLA	Waste Load Allocations
WQBELs	Water Quality-Based Effluent Limitations
WQS	Water Quality Standards
%	Percent

ATTACHMENT B – TOPOGRAPHIC MAP



ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – FEDERAL STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the CWA and the CWC and is grounds for enforcement action, for permit termination, revocation and reissuance, or denial of a permit renewal application [*40 CFR §122.41(a)*].

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not been modified to incorporate the requirement [*40 CFR §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 CFR §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 CFR §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 CFR §122.41(e)*].

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges [*40 CFR §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 CFR §122.5(c)*].

F. Inspection and Entry

The Discharger shall allow the Regional Water Quality Control Board (Regional Water Board), State Water Resources Control Board (State Water Board), United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [*40 CFR §122.41(i)*] [*CWC 13383(c)*]:

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [*40 CFR §122.41(i)(1)*];

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [*40 CFR §122.41(i)(2)*];

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [*40 CFR §122.41(i)(3)*];

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location [*40 CFR §122.41(i)(4)*].

G. Bypass

1. Definitions

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

   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production [*40 CFR §122.41(m)(1)(ii)*].

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 and I.G.5 below [*40 CFR §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 CFR §122.41(m)(4)(i)*]:

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [*40 CFR §122.41(m)(4)(A)*];

   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to

prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [*40 CFR §122.41(m)(4)(B)*]; and

c. The Discharger submitted notice to the Regional Water Board as required under Standard Provision – Permit Compliance I.G.5 below [*40 CFR §122.41(m)(4)(C)*].

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above [*40 CFR §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 CFR §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 [*40 CFR §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 permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [*40 CFR §122.41(n)(1)*].

1. 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 paragraph H.2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [*40 CFR §122.41(n)(2)*].

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

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

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

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b [*40 CFR §122.41(n)(3)(iii)*]; and

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above [*40 CFR §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 CFR §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 CFR §122.41(f)*].

B. Duty to Reapply

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

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC [*40 CFR §122.41(l)(3)*] [*40 CFR §122.61*].

III. STANDARD PROVISIONS – MONITORING

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

B. Monitoring results must be conducted according to test procedures under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in this Order [*40 CFR §122.41(j)(4)*] [*40 CFR §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 CFR Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time [*40 CFR §122.41(j)(2)*].

B. Records of monitoring information shall include:

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

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

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

4. The individual(s) who performed the analyses [*40 CFR §122.41(j)(3)(iv)*];

5. The analytical techniques or methods used [*40 CFR §122.41(j)(3)(v)*]; and

6. The results of such analyses [*40 CFR §122.41(j)(3)(vi)*].

C. Claims of confidentiality for the following information will be denied [*40 CFR §122.7(b)*]:

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order [*40 CFR §122.41(h)*] [*CWC 13267*].

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with paragraph (2.) and (3.) of this provision [*40 CFR §122.41(k)*].

2. All permit applications shall be signed as follows:

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

   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively [*40 CFR §122.22(a)(2)*]; or

c. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA) [*40 CFR §122.22(a)(3)*].

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in paragraph (b) of this provision, 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 paragraph (2.) of this provision [*40 CFR §122.22(b)(1)*];

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

   c. The written authorization is submitted to the Regional Water Board, State Water Board, or USEPA [*40 CFR §122.22(b)(3)*].

4. If an authorization under paragraph (3.) of this provision 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 paragraph (3.) of this provision must be submitted to the Regional Water Board, State Water Board or USEPA prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR §122.22(c)].

5. Any person signing a document under paragraph (2.) or (3.) of this provision shall make the following certification:

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

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the MRP in this Order [*40 CFR §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 CFR §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 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in this Order, the results of this 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 CFR §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 CFR §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 CFR §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 CFR §122.41(l)(6)(i)*].

2. The following shall be included as information that must be reported within 24 hours under this paragraph [*40 CFR §122.41(l)(6)(ii)*]:

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

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

   c. Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours [*40 CFR §122.41(l)(6)(ii)(C)*].

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 CFR §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 CFR §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 40 CFR §122.29(b) [*40 CFR §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 which are subject neither to effluent limitations in this Order nor to notification requirements under 40 CFR Part 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1) [*40 CFR §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 CFR §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 General Order requirements [*40 CFR §122.41(l)(2)].*

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting E.3, E.4, and E.5 at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E [*40 CFR §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 USEPA, the Discharger shall promptly submit such facts or information [*40 CFR §122.41(l)(8)*].

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307,

308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions [*40 CFR §122.41(a)(2)*] [*CWC 13385 and 13387*].

B. Any person may be assessed an administrative penalty by the Regional Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000 [*40 CFR §122.41(a)(3)*].

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

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

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Regional Water Board as soon as they know or have reason to believe [*40 CFR §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 CFR §122.42(a)(1)*]:

    a. 100 micrograms per liter (µg/L) [*40 CFR §122.42(a)(1)(i)*];

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

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

d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [*40 CFR §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 CFR §122.42(a)(2)*]:

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

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

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

d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [*40 CFR §122.42(a)(2)(iv)*].

B. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following [*40 CFR §122.42(b)*]:

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants [*40 CFR §122.42(b)(1)*]; and

2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order [*40 CFR §122.42(b)(2)*].

Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW [*40 CFR §122.42(b)(3)*].

Attachment E – Monitoring and Reporting Program – Table of Contents

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) No. 6899

The Code of Federal Regulations (CFR) at 40 CFR §122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. An effluent sampling station shall be established for the point of discharge (Discharge Point No. 001 [Latitude 33°20'01.9", Longitude 118°18'34.7"]) and shall be located where representative samples of that effluent can be obtained.

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

C. This Regional Water Board shall be notified in writing of any change in the sampling stations once established or in the methods for determining the quantities of pollutants in the individual waste streams.

D. Pollutants shall be analyzed using the analytical methods described in 40 CFR §§136.3, 136.4, and 136.5 (revised May 14, 1999); or, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.

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

F. Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the Department of Health Services or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this MRP".

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

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

2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML; or,

3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

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

Current MLs are those published in Appendix II of the Ocean Plan.

H. Where possible, the MLs employed for effluent analyses shall be lower than the permit limitations established for a given parameter. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

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

1. When the pollutant under consideration is not included in Appendix II of the Ocean Plan;

2. When the Discharger and Regional Water Board agree to include in the permit a test method that is more sensitive than that specified in 40 CFR Part 136 (revised May 14, 1999);

3. When the Discharger agrees to use an ML that is lower than that listed in Appendix II of the Ocean Plan;

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

5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

I. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR §136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Regional Water Board format, when it becomes available, and submitted with the laboratory reports. Proper chain of custody procedures must be followed, and a copy of the chain of custody shall be submitted with the report.

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

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

L. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. The annual monitoring report required in Section X.D shall also summarize the QA activities for the previous year. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per sampling period, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples.

M. When requested by the Regional Water Board or USEPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study. The Discharger must have a success rate equal to or greater than 80%.

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

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

1. Types of wastes and quantity of each type;

2. Name and address for each hauler of wastes (or method of transport if other than by hauling); and

3. Location of the final point(s) of disposal for each type of waste.

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

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

II. MONITORING LOCATIONS

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

Table E-1
Monitoring Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	M-001	Representative sample of effluent, prior to discharge to the rip-rap seawall and into the Pacific Ocean (Latitude 33°20'01.9", Longitude 118°18'34.7")
--	R-001	A point extending three feet from the rip-rap seawall where initial mixing occurs (at the edge of the mixing zone).

III. INFLUENT MONITORING REQUIREMENTS

[Not Applicable]

IV. EFFLUENT AND RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location M-001 and R-001

1. The Discharger shall monitor reverse osmosis brine, filter backwash, and untreated seawater at M-001 and the receiving water at R-001 as follows:

Table E-2
Effluent and Receiving Water Monitoring Requirements

Parameter	Units	Sample Type[1]	Minimum Sampling Frequency-Effluent	Minimum Sampling Frequency-Receiving Water
Flow	MGD	continuous	daily	-
Temperature	˚F	grab	weekly	quarterly
Oil and Grease	mg/L	grab	monthly	-
pH	Units	grab	monthly [2]	quarterly
Total Suspended Solids	mg/L	grab	monthly [2]	-
Bis (2-ethylhexyl) phthalate	µg/L	grab	monthly [2]	-
Settleable Solids	ml/L	grab	monthly [2]	-
Turbidity	NTU	grab	monthly [2]	-
Arsenic	µg/L	grab	monthly [2]	semi-annually
Cadmium	µg/L	grab	monthly [2]	semi-annually
Chromium (III)	µg/L	grab	monthly [2]	semi-annually
Copper	µg/L	grab	monthly [2]	semi-annually
Hexavalent chromium	µg/L	grab	monthly [2]	semi-annually
Lead	µg/L	grab	monthly [2]	semi-annually

Parameter	Units	Sample Type[1]	Minimum Sampling Frequency-Effluent	Minimum Sampling Frequency-Receiving Water
Mercury	µg/L	grab	monthly [2]	semi-annually
Nickel	µg/L	grab	monthly [2]	semi-annually
Selenium	µg/L	grab	monthly [2]	semi-annually
Silver	µg/L	grab	monthly [2]	semi-annually
Zinc	µg/L	grab	monthly [2]	semi-annually
MBAS	mg/L	grab	quarterly	annually
$BOD_5$20°C	mg/L	grab	quarterly	-
Tributyltin	µg/L	grab	semi-annually	annually
Methyl Tertiary Butyl Ether (MTBE)	µg/L	grab	semi-annually	annually
2,4-Dinitrophenol	µg/L	grab	semi-annually	annually
2,4,6-Trichlorophenol	µg/L	grab	semi-annually	annually
4,6-Dinitro-2-methyl-phenol	µg/L	grab	semi-annually	annually
Phenolic compounds (chlorinated) [3]	µg/L	grab	semi-annually	annually
Bis(2-chloro-ethoxy) methane	µg/L	grab	semi-annually	annually
Bis(2-chloro-isopropyl) ether	µg/L	grab	semi-annually	annually
Di-n-butylphthalate	µg/L	grab	semi-annually	annually
Dichlorobenzenes [4]	µg/L	grab	semi-annually	annually
Hexachlorocyclopentadiene	µg/L	grab	semi-annually	annually
Bis(2-chloroethyl) ether	µg/L	grab	semi-annually	annually
1,4-Dichlorobenzene	µg/L	grab	semi-annually	annually
3,3-Dichlorobenzidine	µg/L	grab	semi-annually	annually
2,4-Dinitrotoluene	µg/L	grab	semi-annually	annually
1,2-Diphenylhydrazine	µg/L	grab	semi-annually	annually
Hexachlorobenzene	µg/L	grab	semi-annually	annually
Hexachlorobutadiene	µg/L	grab	semi-annually	annually
Hexachloroethane	µg/L	grab	semi-annually	annually
Chlorobenzene	µg/L	grab	semi-annually	annually
Chlorodibromomethane	µg/L	grab	semi-annually	annually
Chloroform	µg/L	grab	semi-annually	annually
Dichlorobromomethane	µg/L	grab	semi-annually	annually
Dichloromethane	µg/L	grab	semi-annually	annually
1,1-Dichloroethylene	µg/L	grab	semi-annually	annually
1,2-Dichloroethane	µg/L	grab	semi-annually	annually
1,3-Dichloropropene	µg/L	grab	semi-annually	annually
1,1,2,2-Tetrachloroethane	µg/L	grab	semi-annually	annually
1,1,1-Trichloroethane	µg/L	grab	semi-annually	annually
1,1,2-Trichloroethane	µg/L	grab	semi-annually	annually
Tetrachloroethylene	µg/L	grab	semi-annually	annually
Trichloroethylene	µg/L	grab	Semi-annually	annually
Vinyl chloride	µg/L	grab	annually	annually
Chlordane	µg/L	grab	annually	annually
Chloroform	µg/L	grab	annually	annually
Heptachlor	µg/L	grab	annually	annually
Heptachlor epoxide	µg/L	grab	annually	annually
Toxaphene	µg/L	grab	annually	annually
Phenolic compounds (non-	µg/L	grab	annually	annually

Parameter	Units	Sample Type[1]	Minimum Sampling Frequency-Effluent	Minimum Sampling Frequency-Receiving Water
chlorinated) [5]				
Diethylphthalate	µg/L	grab	annually	annually
Dimethylphthalate	µg/L	grab	annually	annually
Fluoranthene	µg/L	grab	annually	annually
Isophorone	µg/L	grab	annually	annually
Nitrobenzene	µg/L	grab	annually	annually
Benzidine	µg/L	grab	annually	annually
Bis(2-ethylhexyl) phthalate	µg/L	grab	annually	annually
N-Nitrosodimethylamine	µg/L	grab	annually	annually
N-Nitrosodi-n-propylamine	µg/L	grab	annually	annually
N-Nitrosodiphenylamine	µg/L	grab	annually	annually
Acrolein	µg/L	grab	annually	annually
Acrylonitrile	µg/L	grab	annually	annually
Benzene	µg/L	grab	annually	annually
Carbon tetrachloride	µg/L	grab	annually	annually
Ethylbenzene	µg/L	grab	annually	annually
Halomethanes [6]	µg/L	grab	annually	annually
Toluene	µg/L	grab	annually	annually
Antimony	µg/L	grab	annually	annually
Beryllium	µg/L	grab	annually	annually
Thallium	µg/L	grab	annually	annually
Toxicity, chronic	TUc	grab	annually	-
DDT [7]	µg/L	grab	once every 2 years	once every 2 years
Endosulfan [8]	µg/L	grab	once every 2 years	once every 2 years
Dieldrin	µg/L	grab	once every 2 years	once every 2 years
Endrin	µg/L	grab	once every 2 years	once every 2 years
HCH [9]	µg/L	grab	once every 2 years	once every 2 years
PAHs [10]	µg/L	grab	once every 2 years	once every 2 years
PCBs [11]	µg/L	grab	once every 2 years	once every 2 years
Aldrin	µg/L	grab	once every 2 years	once every 2 years
TCDD equivalents [12]	µg/L	grab	once in 5 years	once in 5 years

1. Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Appendix II of the Ocean Plan, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

2. Monthly samples shall be collected during the filter back wash (with calcium carbonate) and one sample in each quarter shall be collected when Reverse Osmosis (RO) units are chlorinated and dechlorinated and wastewater discharged with brine.

3. Chlorinated phenolic compounds shall mean the sum of 2-Chlorophenol, 2,4-Dichlorophenol, 4-Chloro-3-methylphenol, 2,4,6-Trichlorophenol, and Pentachlorophenol.

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

5. Nonchlorinated phenolic compounds shall mean the sum of Phenol, 2,4-Dimethylphenol, 2-Nitrophenol, and 4-Nitrophenol, 2,4-Dinitrophenol and 4,6-Dinitro-2-Methylphenol.

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

7. 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.

8. Endosulfan shall meanSum of endosulfan-alpha and –beta and endosulfan sulfate.

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

10. 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, fluorene,

11. PCBs *(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.

12. 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:

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

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Definition of Toxicity

1. Chronic Toxicity.

Chronic toxicity measures a sublethal effect (e.g., reduced growth, reproduction) to experimental test organisms exposed to an effluent or ambient waters compared to

that of the control organisms. Chronic toxicity shall be measured in TU_c, where TU_c = 100/NOEC. The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

This Order includes a chronic testing toxicity trigger defined as an exceedance of 6.0 TU_c in a critical life stage test for 100% effluent. (The daily maximum for chronic toxicity of 100% effluent shall not exceed, 6 TU_c in a critical life stage test.)

B. **Chronic Toxicity Effluent Monitoring Program**

1. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.

2. Test Species and Methods:

   a. The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite 100 percent effluent samples in accordance with USEPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition, October 2002 (EPA/21-R-02-013) or USEPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, Third Edition, October 2002, (EPA/821/R-02-014), or a more recent edition.

   b. The Discharger shall conduct tests as follows: with a vertebrate, an invertebrate, and a plant for the first three suites of tests. After the screening period, monitoring shall be conducted using the most sensitive species.

   c. Re-screening is required every 15 months. The Discharger shall re-screen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrates that the same species is the most sensitive then re-screening does not need to include more than one suite 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, but not to exceed five suites.

   d. In brackish waters, the presence of chronic toxicity may be estimated as specified using West Coast marine organisms according to USEPA's *Short-Term Methods for Estimating Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms*, August 1995 (EPA/600/R-95/136), or a more recent edition.

C. **Quality Assurance**

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).

2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manuals (EPA/600/4-91/002 and

EPA/821-R-02-014), then the Discharger must re-sample and re-test at the earliest time possible.

3. Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.

D. **Accelerated Monitoring and Initial Investigation TRE Trigger**

1. Special Provision VI.C.2.b of the Order requires the Discharger to develop and submit for approval an Initial Investigation TRE Workplan.

2. If the results of a toxicity test exceed the chronic toxicity trigger (as defined below):

Chronic Toxicity:

(a) This Order includes a chronic testing toxicity trigger defined as an exceedance of 6.0 TU_c in a critical life stage test for 100% effluent. (The daily maximum for chronic toxicity of 100% effluent shall not exceed, 6 TU_c in a critical life stage test.)

then, the Discharger shall begin the investigation and evaluation as specified in the Dischargers's Initial Investigation TRE Workplan and begin accelerated monitoring by conducting six additional tests, approximately every month, over a 6-month period. The samples shall be collected and the tests initiated no less than 7 days apart. The Discharger shall ensure that they receive results of a failing toxicity test within 24 hours of the close of the test and the additional tests shall begin within 3 business days of the receipt of the result.

3. If implementation of the Initial Investigation TRE Workplan indicates the source of toxicity, then the Discharger may discontinue the Initial Investigation Toxicity Reduction Evaluation and resume routine testing frequency.

4. The first step in the Initial Investigation TRE Workplan for downstream receiving water toxicity can be a toxicity test protocol designed to determine if the effluent from Discharge Point No. 001 causes or contributes to the measured chronic toxicity. If this first step TRE testing shows that the Discharge Point No. 001 effluent does not cause or contribute to downstream chronic toxicity, using USEPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, Third Edition, October 2002, (EPA/821/R-02-014) then a report on this testing shall be submitted to the Regional Water Board and the Initial Investigation TRE will be considered to be completed. Routine testing in accordance with the MRP shall be continued thereafter.

E. **TRE/TIE Trigger**

1. If the accelerated testing shows consistent toxicity as defined below:

a. Chronic Toxicity
   1) If the results of two of the six accelerated tests exceed 6.0 TU_c

then, the Discharger shall immediately implement the Toxicity Reduction Evaluation (TRE) as described below.

F. Steps in TRE and TIE Procedures

1. Following a TRE trigger, the Discharger shall initiate a TRE in accordance with the facility's Initial Investigation TRE workplan. At a minimum, the Discharger shall use USEPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. The Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 30 days of the trigger, which will include, but not be limited to:

    a. Further actions to investigate and identify the cause of toxicity;

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

    c. Standards the Discharger will apply to consider the TRE complete and to return to normal sampling frequency; and,

    d. A schedule for these actions.

2. The following is a stepwise approach in conducting the TRE:

    a. Step 1 - Basic data collection. Data collected for the accelerated monitoring requirements may be used to conduct the TRE;

    b. Step 2 - Evaluates optimization of the treatment system operation, facility housekeeping, and the selection and use of in-plant process chemicals;

    c. Step 3 – If Steps 1 and 2 are unsuccessful, Step 3 implements a TIE by employing all reasonable efforts and using currently available TIE methodologies. The Discharger shall use the USEPA acute and chronic manuals, EPA/600/6-91/005F (Phase I)/EPA/600/R-96-054 (for marine), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III) as guidance. The objective of the TIE is to identify the substance or combination of substances causing the observed toxicity;

    d. Step 4 – Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;

    e. Step 5 evaluates in-plant treatment options; and,

    f. Step 6 consists of confirmation once a toxicity control method has been implemented.

    Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of implementation of these control measures may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the facility's TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there is no longer

toxicity (or six consecutive chronic toxicity test results are less than or equal to 6.0 TU_c or six consecutive acute toxicity test results are greater than 90% survival).

3. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required by this permit, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

4. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance determination, if appropriate.

5. The Regional Water Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Regional Water Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

G. **Reporting**

1. The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month as required by this permit. Test results shall be reported as TU_c for chronic toxicity test results with the self monitoring reports (SMR) for the quarter in which the test is conducted.

2. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, then those results also shall be submitted with the SMR for the period in which the investigation occurred.

    a. The full report shall be submitted on or before the end of the month in which the SMR is submitted.

    b. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the acute toxicity average limit or chronic toxicity limit or trigger.

3. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the SMR. Routine reporting shall include, at a minimum, as applicable, for each test:

    a. Sample date(s);
    b. Test initiation date;
    c. Test species;
    d. End point values for each dilution (e.g., number of young, growth rate, percent survival);
    e. NOEC value(s) in percent effluent;
    f. IC_{15}, IC_{25}, IC_{40} and IC_{50} values in percent effluent;
    g. TU_c values $\left(TU_c = \frac{100}{NOEC} \right)$;
    h. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable);
    i. NOEC and LOEC values for reference toxicant test(s);
    j. IC25 value for reference toxicant test(s);

k. Any applicable charts; and
l. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).

4. The Discharger shall provide a compliance summary, which includes a summary table of toxicity data from all samples collected during that year.

The Discharger shall notify by telephone or electronically, this Regional Water Board of any toxicity exceedance of the limit or trigger within 24 hours of receipt of the results followed by a written report within 14 calendar days of receipt of the results. The verbal or electronic notification shall include the exceedance and the plan the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

[Not Applicable]

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

A. Monitoring Location R-001

The Discharger shall monitor the Pacific Ocean at R-001 and the constituents to be monitored and frequency of monitoring are given in Table E-2 (Section IV.A of MRP).

B. Visual Monitoring of the Receiving Water Sampling Point

1. A visual observation station shall be established in the vicinity of the discharge point to the receiving water.

2. General observations of the receiving water shall be made at each discharge point when discharges occur. During periods of no discharge, the receiving water observations shall be made on a quarterly basis. All receiving water observations shall be reported in the quarterly monitoring report. If no discharge occurred during the observation period, this shall be reported. Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations shall be made:

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

IX. OTHER MONITORING REQUIREMENTS

[Not Applicable]

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

2. If there is no discharge during any reporting period, the report shall so state.

3. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

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

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

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs. Until such notification is given, the Discharger shall submit SMRs in accordance with the requirements described below.

2. The Discharger shall submit quarterly SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. Quarterly reports shall be due on May 1, August 1, November 1, and February 1 following each calendar quarter.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

4. The Discharger shall report with each sample result the applicable Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

5. 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. Where applicable, the Discharger shall include results of receiving water observations.

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

Table E-3
Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	October 14, 2006	All	First day of second calendar month following month of sampling
1 / day	October 14, 2006	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	First day of second calendar month following month of sampling
1 / month	First day of calendar month following October 14, 2006	1st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
1/ quarter	Closest of January 1, April 1, July 1, or October 1 following October 14, 2006	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
1 / semi-annual period	Closest of January 1 or July 1 following October 14, 2006.	January 1 through June 30 July 1 through December 31	August 1 February 1

7. 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.

8. SMRs must be submitted to the Regional Water Board, signed and certified as required by the standard provisions (Attachment D), to the address listed below:

   California Regional Water Quality Control Board
   Los Angeles Region
   320 W. 4th Street, Suite 200
   Los Angeles, CA 90013

C. **Discharge Monitoring Reports (DMRs)**

1. As described in SectionVIII.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Report (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.

2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharge shall submit the original DMR and one copy of the DMR to the address listed below:

State Water Resources Control Board
Discharge Monitoring Report Processing Center
Post Office Box 671
Sacramento, CA 95812

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated or modified cannot be accepted.

D. Other Reports

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

   a. Initial Investigation TRE workplan
   b. Bis (2-ethylhexyl) Phthalate Source Evaluation and Control Study

2. By March 1 of each year, the Discharger shall submit an annual report to the Regional Water Board. The report shall contain the following:

   a. Both tabular and graphical summaries of the monitoring data obtained during the previous year,

   b. A discussion on the compliance record and the corrective actions taken or planned to bring the discharge into full compliance with the waste discharge requirements,

   c. A report discussing the following: 1) operation/maintenance problems; 2) changes to the facility operations and activities; 3) potential discharge of the pollutants associated with the changes and how these changes are addressed in the BMPP; 3) calibration of flow meters or other equipment/device used to demonstrate compliance with effluent limitations of this Order.

   d. A report summarizing the quantities of all chemicals, listed by both trade and chemical names, which are used at the facility and which are discharged or have the potential to be discharged. Any subsequent changes in types and/or quantities shall be reported promptly.

3. If the Discharger wishes to participate in a coordinated receiving water, biomonitoring, and sediment monitoring program with other dischargers to the Pacific Ocean, then, the Discharger shall submit a report seeking approval of the Regional Water Board.

4. This Regional Water Board requires the Discharger to file with the Regional Water Board, within 90 days after the effective date of this Order, a technical report on his preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:

   a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.

b. Evaluate the effectiveness of present facilities and procedures and state when they become operational.

c. Describe facilities and procedures needed for effective preventive and contingency plans.

d. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational.

This Regional Water Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of this Order, upon notice to the Discharger.

ATTACHMENT F – FACT SHEET – TABLE OF CONTENTS

LIST OF TABLES

Attachment F – Fact Sheet

As described in Section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1
Facility Information

WDID	
Discharger	Southern California Edison Company
Name of Facility	Pebbly Beach Generating Station
Facility Address	1 Pebbly Beach Road
	Avalon, California 90704
	Los Angeles County
Facility Contact, Title and Phone	Dr. David Kay, Manager of Environmental Projects, (626) 302-2149
Authorized Person to Sign and Submit Reports	Dr. David Kay
Mailing Address	2244 Walnut Grove Ave., Rosemead, CA 91770
Billing Address	2244 Walnut Grove Ave., Rosemead, CA 91770
Type of Facility	Desalination Plant
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	C
Pretreatment Program	NA
Reclamation Requirements	NA
Facility Permitted Flow	0.720 Million Gallons per Day (MGD)
Facility Design Flow	0.720 MGD
Watershed	NA
Receiving Water	Pacific Ocean
Receiving Water Type	Pacific Ocean

A. Southern California Edison Company (hereinafter Discharger) is the owner and operator of Pebbly Beach Generating Station (hereinafter Facility), a desalination plant serving the people of Catalina Island.

B. The Facility discharges wastewater to the Pacific Ocean, a water of the United States, and is currently regulated by Order No. 89-117 which was adopted on December 4, 1989 and expired on November 10, 1994. The terms of the existing Order automatically continued in effect after the permit expiration date.

C. The Discharger filed a report of waste discharge and submitted an application for renewal of its WDRs and NPDES permit on December 23, 2003. Supplemental information was requested and received on March 30, 2004.

II. FACILITY DESCRIPTION

SCE constructed the Pebbly Beach Desalination Plant (hereinafter Facility or Plant) in late 1980s to augment the fresh water supply on Santa Catalina Island during an extended period of drought. The Plant is located within the confines of one of its existing diesel-electric generating station facilities (Pebbly Beach Generating Station) on Pebbly Beach Road, Santa Catalina Island, Los Angeles County. Saltwater is pumped from two shallow wells to the Plant where it is desalinated to produce freshwater. The Discharger constructed the Facility to produce drinking water from seawater using the reverse osmosis membrane process. The Plant has a freshwater production design capacity of 0.202 MGD. SCE discharges up to 0.720 MGD of reject brine, salt water bypass, and filter backwash from the desalination process.

SCE owns and operates the Plant for supply drinking water to the City of Avalon at Santa Catalina Island. The Plant obtains source water from brackish wells on the island and discharges the brine through a rip rap slope to the ocean. The only other source of drinking water on Santa Catalina is from rainfall collected in the Thompson Reservoir, or from drinking water being barged to the Island.

In late 1980s and in 1990s, the Plant remained idle because of adequate water supply from rainfall and supplemented by other sources. Beginning in 1998, SCE reactivated the Plant at help meet potable water demands at the Island (because of prevalent drought conditions).

Detection of methyl tertiary-butyl ether (MTBE) in 2000 in the old intake source water resulted in SCE's decision to postpone the reactivation of the reverse osmosis facility until another source of seawater supply could be located. It was determined that the main source of MTBE was from the former Chevron gas station located north of the SCE property/plant. The Chevron facility apparently had Underground Storage Tank leaks going back to 1990s.

Several alternative sources of seawater for the desalination were evaluated based on cost, licensing, reliability, water quality and environmental impacts. The selected option called for construction of conventional source water wells at the remote "Quarry" location. The water from conventional wells (located approximately 75 feet from the shore) would have no entrainment of marine life, and still would be filtered by the rock bed. From November 2002 through 2003, two separate wells were installed at the rock quarry, approximately one mile southeast of the Plant. New corrosion resistant pumps were installed in February 2005 to combat corrosion.

The desalination system consist of two saltwater supply wells (300 gallons per minute capacity each), three multi-media filter units, two microfiltration units, four modular reverse osmosis units, chlorination equipment, and a product water storage tank.

A. Description of Wastewater and Biosolids Treatment or Controls

The Discharger does not provide treatment for the reject brine water from the reverse osmosis units. In addition to the reverse osmosis reject brine, the desalination plant's three multi-media filter systems are backwashed monthly with calcium carbonate, resulting in an additional 5,000 gallon discharge, once per month. The backwash water is commingled with the reject brine water prior to discharge. Quarterly, the reverse osmosis units are chlorinated and dechlorinated with sodium metabisulfate and zinc chloride. Approximately 6,000 gallons per year of bisulfate solution is used as a preservative and protectant when the facility is not operating. These wastes will be commingled with the reject brine effluent from the other operating units prior to discharge. Hypersperse MDC-120 is used as an anti-scalant in the reverse osmosis process, which results in a concentration of 3 mg/L of the

proprietary substance in the brine discharge. A review of the MSDS for the substance indicates that it is a non-toxic substance that should not pose a threat to aquatic life or human health.

B. Discharge Points and Receiving Waters

The Discharger proposes to discharge up to 0.720 MGD of reject brine water from the reverse osmosis units, filter backwash water from the intake multi-media filter system, and untreated seawater into the Pacific Ocean, a water of the United States, (Latitude 33° 20' 01.9", Longitude 118° 18' 34.7").

The brine reject is discharged from the Facility into a concrete trough and cascades from the trough down 15 feet through the rip-rap where it meets the seawater surface. The effluent mixes with the seawater over a horizontal distance of 24 to 42 feet before emerging from the rip-rap at the shoreline. An analysis of dilution for discharges from Pebbly Beach Desalination Plant was conducted by the State Water Board using USEPA's Model "Prych, Davis, Shirazi model for Windows" (PDSWIN). PDSWIN was developed to estimate dilution of tributary channels entering into larger water bodies. While the geometry of the Pebbly Beach Desalination Plant discharge is not consistent with the discharge type typically modeled using PDSWIN, the model was selected as the best representation available to staff at the time. The model was configured to estimate dilution commencing at the ocean surface and does not provide any credit for momentum induced mixing as the effluent impinges on the seawater surface. The model also does not take into consideration any wave or tidal action that could increase mixing through turbulent flow within the seawall. For these reasons, the model predictions are expected to be conservative in nature.

The variables and assumptions used while modeling the discharge are specified in a letter from the State Water Board to Regional Board Staff dated May 18, 2001, and are maintained in the facility file by the Regional Water Board. The State Water Board found that rapid initial dilution is occurring at the point of discharge. The State Water Board and Regional Water Board, based on the data provided, concluded that a dilution factor of five is applicable for this discharge. The mixing zone is defined as the water column immediately adjacent to and within the rip-rap seawall where initial mixing occurs. Immediately adjacent is defined as the portion of ocean waters extending approximately 3 feet from the shoreline.

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

Effluent limitations contained in the existing Order for discharges from Discharge Point No. 001 and representative monitoring data from the term of the previous Order are summarized in Table F-2, below.

Table F-2
Summary of Effluent Limitations and SMR Reporting
Discharge Point No. 001

Parameter	Units	Effluent Limitation		Monitoring Data (June 2000 to October 2005)
		Average 30-Day[1]	Maximum	Range of Reported Concentrations
BOD	mg/L	20	60	<5.00[2]
	lbs/day[3]	144	433	Not Reported
Oil and Grease	mg/L	10	15	<5.0 – 8.3
	lbs/day[3]	72	118	Not Reported
pH	Units	--	[4]	7.00 – 8.18
Temperature	°F	--	[5]	Not Reported
Suspended Solids	mg/L	50	150	<0.1 – 74.3
	lbs/day[3]	361	1082	Not Reported
Arsenic	µg/L	--	80	<0.015 – 1.37
Cadmium	µg/L	--	10	0.132 – 0.658
Copper	µg/L	--	30	0.005 – 0.037
Lead	µg/L	--	20	0.015 – 0.037
Mercury	µg/L	--	0.4	<0.005 – 0.014
Nickel	µg/L	--	50	0.562 – 12.50
Selenium	µg/L	--	0.50	<0.01 – 0.066
Silver	µg/L	--	7	0.019 – 1.31
Zinc	µg/L	--	200	7.42 – 36
Settleable Solids	ml/L	0.1	0.3	<0.1 – 0.6
Turbidity	NTU	50	150	Not Reported

1 For both concentration and mass effluent 30-day average discharge limitations, determination of compliance shall be based on the arithmetic average of all values of daily discharges calculated using the results of analyses of all samples collected during any thirty (30) consecutive calendar day periods. If fewer than four samples are collected and analyzed during any 30 consecutive calendar day period, compliance with the 30-day average discharge limitations shall not be determined.
2 All values reported were below the detection limits (<5.00 mg/l).
3 Based on a maximum flow of 0.864 MGD.
4 The pH of wastes discharged shall at all times be within the range of 6.0 to 9.0 pH units.
5 The temperature of wastes discharged shall not differ from that of the receiving waters by more than 20°F.

D. **Compliance Summary**

Data submitted to the Regional Water Board indicate that the Discharger has exceeded existing permit limitations as outlined in the Table below:

Table F-3
Summary of Compliance History

Date	Monitoring Period	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
8/14/2003	August 2003	Maximum	Settleable Solids	0.6	0.3	ml/L
August 2003	August 2003	Monthly Average	Settleable Solids	0.35[1]	0.1	ml/L

[1] Settleable solids samples taken on August 14, 2003 and August 27, 2003 resulted in 0.6 ml/L and <0.1 ml/L, respectively. The reported detection level for the ND value and the detected value were averaged to determine the monthly average.

E. **Planned Changes**

[Not Applicable]

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. **Legal Authorities**

This Order is issued pursuant to section 402 of the Federal CWA and implementing regulations adopted by the USEPA and Chapter 5.5, Division 7 of the CWC. It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as WDRs pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.

B. **California Environmental Quality Act (CEQA)**

This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

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

1. **Water Quality Control Plans.** In accordance with legislative policy set forth in Section 13000 of Division 7 of the CWC, an dpursuant to the authority contained in Section 13170a nd 13170.2 the State Water Board adopted a revised Ocean Plan on November 16, 2000. The revised Ocean Plan became effective on December 3, 2001. The Ocean Plan was amended in April 2005 to address reasonable potential and Areas of Special Biological Significance. The Ocean Plan contains water quality objectives and beneficial uses for the ocean waters of California. The beneficial uses of State ocean waters to be protected are summarized below:

Table F-4
Ocean Plan Beneficial Uses of the Pacific Ocean

Discharge Point	Receiving Water Name	Beneficial Use
Outfall 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; Rare and Endangered Species; Marine Habitat; Fish Migration; Fish Spawning and Shellfish Harvesting

In order to protect these beneficial uses, the Ocean Plan establishes water quality objectives (for bacterial, physical, chemical, and biological characteristics, and for radioactivity), general requirements for management of waste discharged to the ocean, quality requirements for waste discharges (effluent quality requirements), discharge prohibitions, and general provisions.

2. **Thermal Plan.** The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for coastal waters.

3. **Antidegradation Policy.** Section 131.12 of 40 CFR requires that 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 No. 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution No. 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. Order No. R4-2006-0068 has allowed for a dilution factor of five to be applied to the applicable WQBELs. The dilution factor was calculated by the State Water Board as explained in the Fact Sheet and is considered protective of water quality criteria, objectives, and beneficial uses. Thus, the application of the dilution factor to the applicable WQBELs is not expected to degrade water quality. As discussed in detail in this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution No. 68-16.

4. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR §122.44(l) prohibit 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. Effluent limitations in the Order have been revised or removed in accordance with 40 CFR §122.44(i)(B)(1).

5. **Monitoring and Reporting Requirements.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The MRP establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.

6. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards become effective for CWA purposes (40 CFR § 131.21, 65 FR 24641, April 27, 2000). Under USEPA's new regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

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

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

The USEPA approved the State's 2002 303(d) list of impaired water bodies on July 25, 2003. 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 2002 303(d) list and have been scheduled for TMDL development.

The 2002 State Water Board's California 303(d) List does not classify the Pacific Ocean at the discharge location as impaired. To date no TMDLs have been developed; therefore, no conditions in the proposed Order are based on TMDLs.

E. Other Plans, Polices and Regulations

[Not Applicable]

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges 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: 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR §122.44(d) requires that permits include WQBELs to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established. Three options exist to protect water quality: 1) 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a); 2) proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information may be used; or 3) an indicator parameter may be established.

The CWA requires that any pollutant that may be discharged by a point source in quantities of concern must be regulated through an NPDES permit. Further, the NPDES regulations require regulation of any pollutant that (1) causes; (2) has the reasonable potential to cause; or (3) contributes to the exceedance of a receiving water quality criteria or objective.

Reverse osmosis reduces and essentially removes dissolved solids and other impurities in water by passing pressurized water over a semi-permeable membrane. The dissolved solids that do not pass through the membrane and the remaining solution (brine) flow past the membrane surface and are discharged. The system at Pebbly Beach is designed to remove 99 percent of the total dissolved solids (TDS) (mostly salts) from the intake water. The Discharger reports that approximately 37 percent of the intake water is recovered as potable water. Thus, the mass of TDS and other parameters contained in the discharge remains nearly unchanged, however the concentration of TDS and other parameters contained in the decreased volume of brine water is increased by approximately 37 percent or a multiple of 1.59. The increase of TDS and other parameters is not expected to result in saline concentrations in the effluent that would result in the degradation of marine life or marine waters.

The Discharger uses polycarboxylic acid as an anit-scalant in the reverse osmosis process. The Discharger reports that this results in a concentration of polycarboxylic acid in the brine discharge of approximately 3 mg/L. Based on the review of the Material Safety Data Sheet, polycarboxylic acid in the effluent is not expected to have adverse effects on the receiving water and not considered a pollutant of concern for this discharge.

The previous permit established effluent limitations for BOD, oil and grease, settleable solids, suspended solids, turbidity, pH, temperature, arsenic, cadmium, copper, lead, mercury, nickel, selenium, silver, and zinc. Table A of the Ocean Plan establishes technology-based effluent limitations for oil and grease, total suspended solids (TSS), settleable solids, turbidity, and pH. The Thermal Plan contains temperature objectives for Coastal Waters that are applicable to this discharge. Data collected over the term of the previous permit term are inconclusive in determining the reasonable potential of the effluent to exceed water quality objectives established in Table B of the Ocean Plan for arsenic, cadmium, copper, lead, mercury, selenium, silver, and zinc. Data collected over the term of the previous permit indicates that the discharge does have reasonable potential to exceed water quality objectives for nickel. The parameters BOD, oil and grease, settleable solids, TSS, turbidity, pH, temperature, arsenic, cadmium, copper, lead, mercury, nickel, selenium, silver, and zinc remain pollutants of concern for this discharge.

Generally, mass-based effluent limitations ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limitations. 40 CFR §122.45(f)(1) requires that all permit limitations, standards or prohibitions be expressed in terms of mass units except under the following conditions: (1) for pH, temperature, radiation or other pollutants that cannot appropriately be expressed by mass limitations; (2) when applicable standards or limitations are expressed in terms of other units of measure; or (3) if in establishing technology-based permit limitation on a case-by-case basis limitation based on mass are infeasible because the mass or pollutant cannot be related to a measure of production. The limitations, however, must ensure that dilution will not be used as a substitute for treatment.

A. **Discharge Prohibitions**

The discharge prohibitions are based on the requirements of the Ocean Plan, State Water Resources Control Board's plans and policies, CWC, and previous permit provisions, and are consistent with the requirements set for other discharges to the Pacific Ocean regulated by NPDES permits.

B. Technology-Based Effluent Limitations

1. Scope and Authority

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 performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional 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 nonconventional pollutants.

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

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

The CWA requires USEPA 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 CFR §125.3 of the NPDES regulations 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 permit writer must consider specific factors outlined in 40 CFR §125.3.

2. Applicable Technology-Based Effluent Limitations

Applicable ELGs for the discharge have not yet been developed.

The tentative permit includes technology-based effluent limitations based on BPJ in accordance with 40 CFR §125.3. The previous permit includes effluent limitations for, BOD, oil and grease, settleable solids, suspended solids, turbidity, and pH. Table A of the Ocean Plan (Table A) contains technology-based effluent limitations for oil and grease, suspended solids, settleable solids, turbidity, and pH. Section 402(o) of the CWA and 40 CFR §122.44(l) require that effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Orders. To be consistent with Regional Water Boards throughout the State, and with recent Orders adopted by this Regional Water Board, suspended solids are referred to as total suspended solids (TSS) in the renewed Order. The effluent limitations contained in Table A were compared to the effluent limitations contained in the previous permit. In order to prevent backsliding and ensure compliance with the applicable Table A effluent

limitations, the most stringent effluent limitations for each parameter was established in the current Order. In cases where the 7-day maximum effluent limitations were less stringent than daily maximum effluent limitations, the 7-day maximum effluent limitation was removed. Table F-5 summarizes the effluent limitations contained in the previous Order and the effluent limitations contained in Table A.

Table F-5
Summary of Technology-based Effluent Limitations
Discharge Point No. 001

Parameter	Units	Order No. 89-117 Limitations		Table A Limitations		
		30-Day Average	Daily Maximum	30-Day Average	7-Day Average	Instantaneous Maximum
BOD	Mg/L	20	60	--[1]	--[1]	--[1]
Oil and Grease	Mg/L	10	15	25	40	75
Settleable Solids	Ml/l	0.1	0.3	1.0	1.5	3.0
TSS	Mg/L	50	150	60[1]	--	--
Turbidity	NTU	50	150	75	100	225
pH	Units	--	[2]	--	--	[3]

1 Dischargers shall, as a 30-day average, remove 75% of suspended solids from the influent stream before discharging wastewaters to the ocean, except that the effluent limitation to be met shall not be lower then 60 mg/l.
2 The pH of wastes discharged shall at all times be within the range of 6.0 to 9.0 pH units.
3 Within limit of 6.0 to 9.0 at all times.

The previous effluent limitations were compared to effluent limitations contained in Table A of the Ocean Plan. The most stringent of the two were established in the Order. The technology-based effluent limitations contained in the current Order are summarized in the Table F-6.

Table F-6
Summary of Final Technology-based Effluent Limitations
Discharge Point No. 001

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Daily Maximum	Instantaneous Minimum	Instantaneous Maximum
BOD	mg/L	20	--	60	--	--
Oil and Grease	mg/L	10	--	15	--	--
pH	Units	--	--	--	6.0	9.0
Suspended Solids	mg/L	50	--	150	--	--
Settleable Solids	ml/L	0.1	--	0.3	--	--
Turbidity	NTU	50	100	150	--	--

[1] Applied as total recoverable.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

As specified in 40 CFR §122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water and achieve applicable water quality objectives and criteria as specified in the Ocean Plan. The specific procedures for determining reasonable potential for discharges from the Facility and if necessary for calculating WQBELs, are contained in the Ocean Plan (as amended in April 2005). Additional WQBELs for temperature are required as specified in the Thermal Plan.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

As noted in Section III.C 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.1 of this Fact Sheet. The Ocean Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

Table B of the Ocean Plan (Table B) includes the following water quality objectives for toxic pollutants and whole effluent toxicity:

a. 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.

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

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

d. Daily maximum objectives for acute and chronic toxicity.

3. Determining the Need for WQBELs

The need for effluent limitations based on water quality objectives in Table B of the Ocean Plan was evaluated in accordance with 40 CFR §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. According to the 2005 Ocean Plan amendment, the reasonable potential analysis (RPA) can yield three endpoints: 1) Endpoint 1, an effluent limitation is required and monitoring is required; 2) Endpoint 2, an effluent limitation is not required and the Regional Water Board may require monitoring; and 3) 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. Effluent data submitted to the Regional Water Board for the time frame of June 2000 through October 2005, and the dilution credit applicable to the ocean outfall (5:1) were used with the RPcalc 2.0 software tool developed by the State Water Board was used for conducting RPAs. Reasonable Potential to exceed water quality objectives contained within the Ocean Plan was determined for nickel and bis (2-ethylhexyl) phthalate. Reasonable Potential for arsenic, cadmium, copper, lead, mercury, selenium, silver, and zinc was inconclusive. Thus, as specified in the 2005 Ocean Plan amendment, the previous effluent limitation was carried over. However, because the previous effluent limitations were based on the daily maximum water quality objectives contained in Table B of the Ocean Plan, effluent limitations for arsenic, cadmium, copper, lead, mercury, selenium, silver, and zinc are considered to be WQBELs. The previous Order established only daily maximum effluent limitations. To be consistent with all the water quality objectives contained in the Ocean Plan, 6-month median and instantaneous maximum effluent limitations for arsenic, lead, mercury, selenium, silver, and zinc were established in addition to a daily maximum. The newly established dilution factor was applied to all WQBELs.

Water quality-based effluent limitations for nickel and bis (2-ethylhexyl) phthalate have been established in Order No. R4-2006-0068. For many of the Table B parameters, insufficient data were available to determine if the parameters had reasonable potential to exceed water quality objectives, thus water quality-based effluent limitations were not established for these parameters, however monitoring requirements for these parameters have been established in the Monitoring and Reporting Program (Attachment E). For Table B parameters that had effluent limitations established in the previous Order, and insufficient data to conduct a conclusive RPA, the previous effluent limitations have been carried over with the application of the dilution factor.

4. **WQBEL Calculations**

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

$$Ce = Co + Dm (Co – Cs)$$

where:
Ce = the effluent limitation (µg/L)
Co = the water quality objective to be met at the completion of initial dilution (µg/L)
Cs = background seawater concentration

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

The Dm is based on observed waste flow characteristics, receiving water density structure, and the assumption that no currents of sufficient strength to influence the initial dilution process flow across the discharge structure.

The State Water Board had determined the minimum initial dilution factor, Dm, for the ocean outfall to be 5 to 1. Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. As stated above, the water quality objective to be met at the completion of initial dilution is contained in Table B of the Ocean Plan. As site-specific water quality data are not available for the ambient water, in accordance with Table B implementing procedures, Cs equals zero for all pollutants, except the following:

Table F-7
Pollutants Having Background Concentrations

Pollutant	Background Seawater Concentration
Arsenic	3 µg/L
Copper	2 µg/L
Mercury	0.0005 µg/L
Silver	0.16 µg/L
Zinc	8 µg/L

WQBELS based on the dilution provided at the outfall for the parameters listed in Table F-8 are determined as described below:

Water Quality Objectives from the Ocean Plan are:

Table F-8
Ocean Plan Water Quality Objectives

Pollutant (	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	--
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	--
Bis (2-ethylhexyl) Phthalate	--	--	--	3.5

WQBELs are calculated as follows:

Example: No background concentration of nickel or bis (2-ethylhexyl) phthalate is credited for the receiving water. Using the equation, Ce = Co + Dm (Co – Cs), water quality effluent limitations are calculated as follows:

Nickel

Ce = 5 µg/L + 5 (5 µg/L – 0) = 30 µg/L (6-Month Median)
Ce = 20 µg/L + 5 (20 µg/L – 0) = 120 µg/L (Daily Maximum)
Ce = 50 µg/L + 5 (50 µg/L – 0) = 300 µg/L (Instantaneous Maximum)

Bis (2-ethylhexyl) Phthalate

Ce = 3.5 µg/L + 5 (3.5 µg/L – 0) = 21 µg/L (6-Month Median)

Using the equation, Ce = Co + Dm (Co – Cs), and the procedures specified in the Ocean Plan and summarized above, WQBELs for arsenic, bis (2-ethylhexyl) phthalate, cadmium, copper, lead, mercury, nickel, selenium, silver, and zinc have been recalculated and are summarized in Table F-9.

Table F-9
Summary of WQBELs Based on Order No. 89-117
Discharge Point No. 001

Pollutant	Order No. 89-1117 Daily Maximum	New WQBELs			
		6-Month Median (µg/L)	Daily Maximum (µg/L)	Instantaneous Maximum (µg/L)	30-Day Average (µg/L)
Arsenic	80	33	177	465	--
Cadmium	10	6	24	60	--
Copper	30	8	62	170	--
Lead	20	12	48	120	--
Mercury	0.4	0.24	0.96	2.4	--
Nickel	50	30	120	300	--
Selenium	0.50	90	360	900	--
Silver	7	3.4	16	41.2	--
Zinc	200	80	440	1,160	--
Bis (2-ethylhexyl) Phthalate	--	--	--	--	21

5. **WQBELs based on the Thermal Plan**

The previous permit established a narrative effluent limitation for temperature. The previous temperature limitation prohibited the discharge of wastes that differed from that of the receiving waters by more than 20 °F. The basis for this effluent limitation is most likely the Thermal Plan. Since the drafting of the previous Order, the Regional Water Board staff has developed a white paper entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region*. The white paper evaluated the optimum temperatures for

steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. This white paper is used by the Regional Water Board to implement the requirements of the Thermal Plan. As a result of the white paper, a maximum effluent temperature limitation of 86 °F is included in the tentative permit. The new temperature effluent limit is reflective of new information available that indicates that the 100 °F temperature is not protective of aquatic organisms. A survey was completed for several kinds of fish and the 86 °F temperature was found to be protective. Dilution credits are not applicable to temperature effluent limitations developed in accordance with the Thermal Plan.

6. **Final WQBELs**

A summary of the water quality based-effluent limitations is provided in Table F-10.

Table F-10
Summary of Water Quality-based Effluent Limitations
Discharge Point No. 001

Parameter	Unit	Effluent Limitations			
		6-Month Median	30-Day Average	Maximum Daily	Instantaneous Maximum
Temperature	°F	--	--	86	--
Arsenic, Total Recoverable	µg/L	33	--	177	465
Cadmium, Total Recoverable	µg/L	6	--	24	60
Copper, Total Recoverable	µg/L	8	--	62	170
Lead, Total Recoverable	µg/L	12	--	48	120
Mercury, Total Recoverable	µg/L	0.24	--	0.96	2.4
Nickel, Total Recoverable	µg/L	30	--	120	300
Selenium, Total Recoverable	µg/L	90	--	360	900
Silver, Total Recoverable	µg/L	3.4	--	16	41.2
Zinc, Total Recoverable	µg/L	80	--	440	1,160
Bis (2-ethylhexyl) Phthalate	µg/L	--	21	--	--

7. **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.

Sufficient data to determine reasonable potential for toxicity was not available. Thus, effluent water quality-based effluent limitations have not been established for toxicity.

Implementing provisions at Section III. C of the Ocean Plan (2001) require chronic toxicity monitoring for ocean waste discharges with minimum initial dilution factors below 100. The Discharger will be required to conduct chronic toxicity testing in order to determine reasonable potential and establish WQBELs as necessary. In addition, the Order establishes thresholds that when exceeded requires the Discharger to conduct accelerated toxicity testing and/or conduct toxicity reduction evaluation (TRE) and toxicity identification evaluation (TIE) studies.

D. Final Effluent Limitations

Section 402(o) of the CWA and 40 CFR §122.44(l) require that effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Orders based on the submitted sampling data. Effluent limitations for BOD, oil and grease, settleable solids, TSS, turbidity, and pH are being carried over from the previous Order (Order No. 89-117). Removal of these numeric limitations would constitute backsliding under CWA Section 402(o). The Regional Water Board has determined that these numeric effluent limitations continue to be applicable to the Facility and that backsliding is not appropriate. Effluent limitations for arsenic, bis (2-ethylhexyl) phthalate, cadmium, copper, lead, mercury, nickel, selenium, silver, and zinc have been established with the application of the State Water Board approved dilution factor of 5:1, consistent with the Ocean Plan water quality objectives. In addition, technology-based effluent limitations (7-day averages) for turbidity contained in the Ocean Plan are applicable to the discharge and has been added to the tentative Order.

The effluent limitation for temperature has been revised to reflect new information that is consistent with the goals of the Thermal Plan. In addition, an effluent limitation for bis (2-ethylhexyl) phthalate has been added to this Order, because the Facility's discharge was found to have reasonable potential to exceed water quality criteria for this parameter.

Table F-11
Summary of Final Effluent Limitations
Discharge Point No. 001

Parameters	Units	Effluent Limitations						Basis[1]
		6-Month Median	Average Monthly	7-Day Average	Daily Maximum	Instantaneous Minimum	Instantaneous Maximum	
BOD	mg/L	--	20	--	60	--	--	Previous Order
Oil and Grease	mg/L	--	10	--	15	--	--	Previous Order
pH	Units	--	--	--	--	6.0	9.0	Previous Order; Ocean Plan
Total Suspended Solids	mg/L	--	50	--	150	--	--	Previous Order; Ocean Plan
Arsenic, Total Recoverable	µg/L	33	--	--	177	--	465	Previous Order; Ocean Plan
Cadmium, Total Recoverable	µg/L	6	--	--	24	--	60	Previous Order; Ocean Plan
Copper, Total Recoverable	µg/L	8	--	--	62	--	170	Previous Order; Ocean Plan
Lead, Total Recoverable	µg/L	12	--	--	48	--	120	Previous Order; Ocean Plan
Mercury, Total Recoverable	µg/L	0.24	--	--	0.96	--	2.4	Previous Order; Ocean Plan
Nickel, Total Recoverable	µg/L	30	--	--	120	--	300	Previous Order; Ocean Plan

Parameters	Units	Effluent Limitations						Basis[1]
		6-Month Median	Average Monthly	7-Day Average	Daily Maximum	Instantaneous Minimum	Instantaneous Maximum	
Selenium, Total Recoverable	µg/L	90	--	--	360	--	3	Previous Order; Ocean Plan
Silver, Total Recoverable	µg/L	3.4	--	--	16	--	13.2	Previous Order; Ocean Plan
Zinc, Total Recoverable	µg/L	80	--	--	440	--	1,160	Previous Order; Ocean Plan
Bis (2-ethylhexyl) phthalate	µg/L	--	21	--	--	--	--	Ocean Plan
Settleable Solids	ml/L	--	0.1	--	0.3	--	--	Previous Order; Ocean Plan
Turbidity	NTU	--	50	100	150	--	--	Previous Order; Ocean Plan

1 Previous Order – Effluent limitations have been carried over from Order No. 89-117.
Ocean Plan – WQBELs have been calculated as specified in the Ocean Plan.

2 Based on a total maximum flow of 0.720 MGD.

E. **Interim Effluent Limitations**

The Ocean Plan and the Basin Plan do not provide for the establishment of interim effluent limitations for discharges to the Ocean. Thus, no interim effluent limitations have been established for this discharge.

F. **Land Discharge Specifications**

[Not Applicable]

G. **Reclamation 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 costal waters of California. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (40 CFR §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 MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the CWC authorize the Water Boards to require technical and monitoring reports. The MRP, Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. **Influent Monitoring**

[Not Applicable]

B. **Effluent Monitoring**

Monitoring for those pollutants expected to be present in discharges from Discharge Point No. 001 (Monitoring Locations M-001) will be required as shown on the proposed MRP (Attachment E). To determine compliance with effluent limitations, the proposed monitoring plan carries forward monitoring requirements for flow, temperature, oil and grease, pH, settleable solids, suspended solids, BOD from previous Order 89-117. Monitoring requirements for MBAS have been carried over to evaluate the concentrations of MBAS

discharged by the Facility during maintenance activities. Monitoring requirements for salinity have also been carried over from the previous permit to determine future dilution credits for the discharge. Monitoring for turbidity has been established to determine compliance with final effluent limitations. Monitoring for priority pollutants during the first three months of operation has been revised to include only the Table B parameters contained in the Ocean Plan on a semi-annual basis, with the exception of nickel and bis (2-ethylhexyl) phthalate. The monitoring of Table B parameters will allow for sufficient data to be collected to determine reasonable potential in the future, and eliminate monitoring costs for parameters in which water quality objectives are not established. Quarterly monitoring for nickel and bis (2-ethylhelxyl) phthalate has been established to evaluate compliance with the new water quality-based effluent limitations.

Grab samples has been established for all parameters (with the exception of flow), because of the expected consistent nature of the discharge, and reduce unnecessary costs for the Discharger.

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. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. 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. This Order includes semi-annual monitoring requirements for chronic toxicity in the MRP (Attachment E) as specified in the Ocean Plan, and to determine reasonable potential of the discharge to exceed Table B water quality objectives.

Chronic toxicity is to be calculated using the following formula:

$$TUc = \frac{100}{NOEL}$$

Where: No Observed Effect Level (NOEL) 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 as listed in Appendix II of the Ocean Plan.

The Ocean Plan establishes numeric objectives for chronic toxicity in Section II.D, Table B, with a chronic toxicity daily maximum effluent objective of 1.0 (TU_c). Based on methods of the Ocean Plan with a minimal initial dilution of 5:1, a maximum daily water quality trigger of 6 TUc for chronic toxicity is established.

If the toxicity water quality trigger of 6 TUc is exceeded, then, within 15 days of the exceedance, the Discharger shall begin conducting six additional toxicity tests over a six-month period and provide the results to the Regional Water Board. If the additional monthly toxicity tests indicate that toxicity effluent limitations are being consistently violated, the Regional Water Board may require the Discharger to complete a toxicity reduction evaluation (TRE) and Toxic Identification Evaluation (TIE).

D. **Receiving Water Monitoring**

1. **Surface Water**

This Order includes receiving water limitations and therefore, monitoring requirements are included in the MRP (Attachment E) to determine compliance with the receiving water limitations established in Limitations and Discharge Requirements, Receiving Water Limitations, Section V.A. Monitoring for temperature, pH, and toxic pollutants in the receiving water is included in the MRP. The discharge of reverse osmosis brine is not expected to contribute to receiving water impairment for total coliform, fecal coliform, thus monitoring for these parameters has not been required. The facility is required to perform general observations of the receiving water when discharges occur and report the observations in the monitoring report. Attention shall be given to the presence or absence of: floating or suspended matter, discoloration, aquatic life, visible film, sheen or coating, and fungi, slime, or objectionable growths.

2. **Groundwater**

[Not Applicable]

E. **Other Monitoring Requirements**

[Not Applicable]

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions**

Standard Provisions, which in accordance with 40 CFR §§122.41 and 122.42 apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D to the Order.

2. **Regional Water Board Standard Provisions**

Regional Water Board Standard Provisions are based on the CWA, USEPA regulations, and the CWC.

B. **Special Provisions**

1. **Reopener Provisions**

These provisions are based on 40 CFR Part 123 and the previous Order. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new federal regulations, modification in toxicity requirements, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan.

2. **Special Studies and Additional Monitoring Requirements**

a. Chronic Toxicity Trigger. This provision is based on Table B of the Ocean Plan Toxicity Control Provisions.

b. Initial Investigation Toxicity Reduction Evaluation Workplan. This provision is based on Section III.C.9 of the Ocean Plan.

3. **Compliance Schedules**

Data submitted by the Discharger indicate that the Discharger has exceeded water quality objectives for bis (2-ethylhexyl) phthalate. The Discharger may not be able to consistently comply with the newly established WQBELs for bis (2-ethylhexyl) phthalate. The Discharger is required to conduct and submit to the Regional Water Board, within 90-days of the adoption of this Order, a source evaluation and control study for bis (2-ethylhexyl) phthalate. The study should evaluate the potential sources of bis (2-ethylhexyl) phthalate and determine how to comply with the established effluent limitations immediately.

The presence of bis (2-ethylhexyl) phthalate in samples is commonly due to contamination of the sample at the time of sampling or handling at the laboratory. If the source of bis (2-ethylhexyl) phthalate is determined to be improper sampling, handling, or analysis techniques, the Discharger must specify how they will ensure that future laboratory sampling, sample handling, and sample analysis for bis(2-ethylhexyl)phthalate accurately and precisely represent the Discharger's final effluent.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for Pebbly Beach Desalination Plant. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

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

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on August 25, 2006.

C. **Public Hearing**

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

Date:	September 14, 2006, at
Time:	9:00 A.M.
Location:	Metropolitan Water District of Southern California, Board Room Los Angeles, California

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

Please be aware that dates and venues may change. Our web address is **http://www.waterboards.ca.gov/losangeles** where you can access the current agenda for changes in dates and locations.

D. **Waste Discharge Requirements Petitions**

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. **Information and Copying**

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address below at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (213) 576-6600.

California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

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 Regional Water Board, reference this facility, and provide a name, address, and phone number.

G. **Additional Information**

Requests for additional information or questions regarding this order should be directed to Mazhar Ali at (213) 576-6652.