

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 W. 4th Street, Suite 200, Los Angeles**

**FACT SHEET
WASTE DISCHARGE REQUIREMENTS
for
HARBOR COGENERATION COMPANY**

**NPDES Permit No.: CA0060003
Public Notice No.: 04-003**

FACILITY ADDRESS

Harbor Cogeneration Company
505 Pier B Avenue
Wilmington, CA 90744

FACILITY MAILING ADDRESS

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Contact: Ron Hoffard
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I. Public Participation

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

A. 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:

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

To be fully responded to by staff and considered by the Regional Board, written comments should be received at the Regional Board offices by 5:00 p.m. on April 12, 2004.

B. Public Hearing

The Regional 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: May 6, 2004
Time: 9:00 a.m.
Location: The City of Simi Valley Council Chambers
2929 Tapo Canyon Road, Simi Valley, CA

Interested persons are invited to attend. At the public hearing, the Regional 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 www.swrcb.ca.gov/rqcb4 where you can access the current agenda for changes in dates and locations.

C. Waste Discharge Requirements Appeals

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

State Water Resources Control Board
ATTN: Elizabeth Miller Jennings, Senior Staff Counsel
1001 I Street, 22nd Floor
Sacramento, CA 95812

D. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special conditions, comments received, and other information are on file and may be inspected at 320 West 4th Street, Suite 200, Los Angeles, California 90013, at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Los Angeles Regional Board by calling (213) 576-6600.

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

II. Introduction

Harbor Cogeneration Company (HCC) discharges wastewater to Cerritos Channel, Long Beach Inner Harbor, a water of the United States. Wastes discharged from HCC are regulated by WDRs and NPDES permit contained in Board Order No. 97-053 (NPDES Permit No. CA0060003). Order No. 97-053 expired on April 10, 2002.

HCC has filed a report of waste discharge and applied for renewal of its WDRs and NPDES permit on February 4, 2002. The tentative Order is the reissuance of the WDRs and NPDES permit for discharges from HCC. A site visit was conducted on August 27, 2003, to observe operations, verify conditions, and collect additional data to develop permit limits and conditions.

III. Description of Facility and Waste Discharge

HCC is the operator of a nominal 100-megawatt, combined cycle facility that produces and sells electricity at 505 Pier B Street, Wilmington, California, of the Wilmington District of the Port of Los Angeles, California. HCC also discharges up to 274,000 gallons per day of water demineralizer regenerant waste and water softener regenerant wastewater.

The facility is a merchant electrical generation plant, which only operates intermittently, as dictated by market conditions. The previous Order (97-053) regulates the discharge of water demineralizer regenerant waste and water softener regenerant wastes.

Source water for the facility is city-supplied. Water is directed through a demineralizer process, and is then either sent to a neutralization tank or to a turbine. Sulfuric acid and caustic soda are used during the demineralizer regeneration treatment. Demineralizer regenerant is then directed to a storage tank and discharged through Discharge Serial No. 001.

Currently, the Discharger directs steam condensate from a steam turbine commissioned in 2001 to the Wilmington Oil Field where it is used to facilitate oil recovery. This water is subsequently treated and discharged from the Wilmington Oil Field.

HCC does not discharge wastewater to the sanitary sewer system because of limited capacity in the sewer system and the nature of the discharge. However, HCC is in the process of exploring sewer hookup.

HCC proposes to discharge up to 274,000 gpd of regenerant waste water, to Cerritos Channel through Discharge Serial No. 001 (Latitude 33°46'15", Longitude 118°13'25"). Cerritos Channel is tributary to Long Beach Inner Harbor, a water of the United States, and is part of the Dominguez Channel and Los Angeles/Long Beach Harbors Watershed Management Area.

The Regional Board and the USEPA have classified the HCC facility as a minor discharge.

Effluent data presented in the permit renewal application is summarized in the following Table:

Constituent (units)	Reported Effluent Concentration	Reported Effluent Mass
Flow (gpd)	64,170 (average)/ 191,800 (max)	-
Biochemical Oxygen Demand (BOD) (mg/L)	13.78	7.4 lbs
Total Suspended Solids (mg/L)	28	15.0 lbs
Temperature (winter and summer) (deg. C)	21.5-29.9	-
pH (standard units)	6.7-8.1	-
Thallium (µg/L)	0.020	0.046 lbs
Bromoform (µg/L)	7.9	0.018 lbs
Chlorodibromomethane (µg/L)	12	0.027 lbs
Chloroform (µg/L)	16	0.037 lbs
Dichlorobromomethane (µg/L)	15	0.034 lbs

¹ Reported as a maximum daily value and average daily value.

All other toxic pollutants were reported as “believed absent” or “Not Detected”.

Effluent limits contained in the existing permit for HCC Discharge Serial No. 001 and representative monitoring data from the previous permit term are presented in the following table. These constituents were monitored monthly and submitted in HCC’s annual reports.

Constituent (units)	Effluent Limit		Monitoring Data (January 1999 – December 2002)
	30-Day Average	Daily Maximum	Range of Reported Values
Settleable Solids (ml/L)	0.1	0.3	ND
Suspended Solids (mg/L)	30	100	ND-110
Suspended Solids (lbs/day) ¹	68	229	NR
Oil and Grease (mg/L)	10	15	ND
Oil and Grease (lbs/day) ¹	23	34	NR
BOD ₅ 20°C (mg/L)	20	30	ND-45
BOD ₅ 20°C (lbs/day) ¹	46	137	NR
Total Chromium (mg/L)	-	0.05	ND-0.026 ²
Polychlorinated Biphenyls	- ³	- ³	ND

¹ Mass-based effluent limitations were based on 274,000 gallons per day maximum discharge flow rate. The discharger did not report discharge data in units of mass.

² Values expressed as Chromium III.

³ The discharge of polychlorinated biphenyls is prohibited.

NR – Not reported; ND – Not detected

As shown in the Table above, HCC discharge exceeded the existing permit effluent limits for total suspended solids and BOD₅. Total suspended solids levels exceeded the daily maximum limit on November 16, 2000 (110 mg/L). Effluent limits for BOD₅ were exceeded on January 5, 2000 (45 mg/L).

The existing permit also required HCC to monitor annually for priority pollutants for which no effluent limitations were developed. In addition, the Regional Board issued a letter on August, 3, 2001 which required HCC to monitor quarterly for the priority pollutants regulated in the California Toxics Rule (CTR). In total, HCC has submitted two (2) years of annual priority

pollutant monitoring data, and seven quarters of quarterly priority pollutant monitoring data. The Table below summarizes the range of reported effluent concentrations for those pollutants that were reported as detected (all other pollutants were reported as below detection levels):

Constituent (units)	Range of Reported Effluent Concentrations (August 1999 – January 2003)
Acenaphthene (µg/L)	<0.031 – 0.04
Antimony (µg/L)	< 2.6 – 7
Arsenic (µg/L)	<0.58 – 11
Benzo(b)Flouranthene (µg/L)	<0.003 – 0.0059
Beta-Endosulfan (µg/L)	<0.001 – 0.011
Bromoform (µg/L)	<0.34 – 7.9
Cadmium (µg/L)	0.1 – 1.3
Chlorodibromomethane (µg/L)	0.8 – 18
Chloroform (µg/L)	1.3 – 16
Chromium VI (µg/L)	<3 – 3.9
Chromium III (µg/L)	<2.7 – 26
Copper (µg/L)	6.5 – 15
Cyanide (µg/L)	<3.7 – 18
Dichlorobromomethane (µg/L)	0.86 – 16
Lead (µg/L)	0.35 – 0.94
Mercury (µg/L)	<0.05 – 0.05
Methylene Chloride (µg/L)	<0.22 – 0.71
Napthalene (µg/L)	<0.03 – 0.047
Nickel (µg/L)	<2.4 – 16
Phenanthrene (µg/L)	<0.007 – 0.01
Selenium (µg/L)	<2.1 – 10
Silver (µg/L)	0.071
2,3,7,8 TCDD (µg/L)	0.00000000048 – 0.0000000855
Thallium (µg/L)	<0.24 – 20
Zinc (µg/L)	3.7 – 420

A facility inspection performed on August 27, 2003 indicated that the facility appeared to be well operated and maintained, and was not in violation of existing permit conditions. During the inspection it was noted that proposed flows submitted in the permit application were based on equipment capacity but appear inflated when compared to historical operation data.

IV. Applicable Plans, Policies, and Regulations

The requirements contained in the proposed Order are based on the requirements and authorities contained in the following:

1. The federal Clean Water Act (CWA) requires that any point source discharges of pollutants to a water of the United States must be done in conformance with an NPDES permit. NPDES permits establish effluent limitations that incorporate various requirements of the CWA designed to protect water quality.

2. Title 40, Code of Regulations (40 CFR) – Protection of Environment, Chapter I, Environmental Protection Agency, Subchapter D, Water Programs, Parts 122-125 and Subchapter N, Effluent Guidelines. These CWA regulations provide effluent limits for certain dischargers and establish procedures for NPDES permitting, including how to establish effluent limits for certain pollutants discharged.
3. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains water quality objectives and beneficial uses for coastal waters and for the Pacific Ocean. The immediate receiving water body for the permitted discharge covered by this permit is Cerritos Channel, which then conveys water to Long Beach Inner Harbor. The Basin Plan contains beneficial uses and water quality objectives for the Long Beach Inner Harbor. The beneficial uses listed in the Basin Plan for the Long Beach Inner Harbor are:

Long Beach Inner Harbor – Hydro Unit No. 405.12

Existing: Industrial service supply, navigation, noncontact recreation, commercial and recreational fishing, marine habitat, preservation of rare, threatened or endangered species.

Potential: Contact recreation and shellfish harvesting.

4. The State Water Resources Control Board (State 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 inland surface waters.
5. **Ammonia Basin Plan Amendment.** The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, these ammonia objectives were revised on April 25, 2002, by the Regional Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) with beneficial Use Designations for Protection of Aquatic Life*. The ammonia Basin Plan amendment was approved by the State Board, the Office of Administrative Law, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003 respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they are still protective of aquatic life and are consistent with USEPA's 1999 ammonia criteria update
6. On May 18, 2000, the U.S. Environmental Protection Agency (USEPA) promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR §131.38]. In

the CTR, USEPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. The CTR also provides a schedule of compliance not to exceed 5 years from the date of permit renewal for an existing discharger if the Discharger demonstrates that it is infeasible to promptly comply with the CTR criteria.

7. On March 2, 2000, State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through National Toxics Rule (NTR) and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP was effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The SIP requires the dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring WQBELs and to calculate the effluent limitations. The CTR criteria for saltwater human health or consumption of organisms, whichever is more stringent, are used to develop the effluent limitations in this Order to protect the beneficial uses of Long Beach Inner Harbor.
8. 40 CFR §122.44(d)(vi)(A) requires the establishment of numeric effluent limitations to attain and maintain applicable narrative water quality criteria to protect the designated beneficial uses. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that water quality-based effluent limits (WQBELs) may be set based on USEPA criteria and supplemented, where necessary, by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.
9. State and Federal antibacksliding and antidegradation policies require that Regional Board actions to protect the water quality of a water body and to ensure that the waterbody will not be further degraded. The antibacksliding provisions are specified in section 402(o) of the CWA and in the Title 40, Code of Federal Regulations (40 CFR), section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.
10. Effluent limitations are established as per sections 301, 304, 306, and 307 of the federal CWA, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of Long Beach Inner Harbor.

11. Existing waste discharge requirements contained in Board Order No. 97-053, adopted by the Regional Board on May 12, 1997. In some cases, permit conditions (effluent limits and other special conditions) established in the existing waste discharge requirements have been carried over to this permit.

V. Regulatory Basis for Effluent Limitations

The CWA requires point source discharges to control the amount of conventional, nonconventional, and toxic pollutants that are discharged into the waters of the United States. The control of the discharge of pollutants is established through NPDES permits that contain effluent limitations and standards. The CWA establishes two principal bases for effluent limitations. First, dischargers are required to meet technology-based effluent limitations that reflect the best controls available considering costs and economic impact. Second, they are required to meet WQBELs that are developed to protect applicable designated uses of the receiving water.

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

- Best practicable treatment control technology (BPT) is based on the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.
- 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.
- Best conventional pollutant control technology (BCT) is a standard for 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.
- New source performance standards (NSPS) that 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 EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BCT, BAT, 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.

If a reasonable potential exists for pollutants in a discharge to exceed water quality standards, WQBELs are also required under 40 CFR 122.44(d)(1)(i). WQBELs are established after determining that technology-based limitations are not stringent enough to ensure that state water quality standards are met for the receiving water. WQBELs are based on the designated use of the receiving water, water quality criteria necessary to support the designated uses, and the state's antidegradation policy. For discharges to inland surface waters, enclosed bays, and estuaries, the SIP establishes specific implementation procedures for determining reasonable potential and establishing WQBELs for priority pollutant criteria promulgated by USEPA through the CTR and NTR, as well as the Basin Plan.

A. Pollutants of Concern

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 and SIP 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. The SIP includes provisions for priority pollutant criteria promulgated by USEPA in the CTR and NTR, and for those priority pollutants outlined in the Basin Plan.

Effluent limitations for Discharge Serial No. 001 in the current permit were established for settleable and suspended solids, oil and grease, and BOD₅ because they are parameters potentially found in water softener regenerant wastewater; thus effluent limitations for these parameters have been established in this permit. Furthermore, the Steam Electric Power Generating point source category Effluent Guidelines establish limits for total suspended solids, oil and grease, and PCBs, and were included in the previous permit and are carried over to this permit.

B. Technology-Based Effluent Limits

As stated in 40 CFR § 423.10, the provisions contained in the Steam Electric Power Generating guidelines are applicable to discharges resulting from the operation of a generating unit by an establishment primarily engaged in the generation of electricity for distribution and sale which results primarily from a process utilizing fossil-type fuel (coal, oil, or gas) or nuclear fuel in conjunction with thermal cycle employing the steam water system as the thermodynamic medium. Low volume waste sources are defined to include, but are not limited to: wastewaters from wet scrubber air pollution control systems, ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, and recirculating house service water systems. Sanitary and air conditioning wastes are not included. The regenerant wastewater to be discharged by HCC are considered low volume wastes.

40 CFR § 423.12 establishes pollutant effluent limitations and standards for the

application of the best practicable control technology currently available, and 40 CFR § 423.13 establishes pollutant effluent limitations and standards for the application of the best available technology economically achievable, and 40 CFR § 423.15 establishes new source performance standards. Because the HCC facility was built in 1989, after the effluent guidelines were promulgated, the facility is required to meet the new source performance standards. These standards set limits for pH and PCBs for all types of discharges, and TSS and oil and grease limits for low volume waste sources. Effluent limitations established in this Order are applicable to low volume waste sources from the NPDES Discharge Serial No. 001 into Cerritos Channel, thence to Long Beach Inner Harbor (Latitude 33°46'15", Longitude 118°13'25").

This permit will require the Discharger to continue to develop and implement, consistent with the existing permit requirements, a *Storm Water Pollution Prevention Plan* (SWPPP). The SWPPP will outline site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into surface waters.

C. Water Quality-Based Effluent Limits

As specified in 40 CFR § 122.44(d)(1)(i), permits are required to include WQBELs for toxic pollutants (including toxicity) that are or may be discharged at levels which 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 for the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria (that are contained in other state plans and policies, or USEPA water quality criteria contained in the CTR and NTR). The specific procedures for determining reasonable potential, and if necessary for calculating WQBELs, are contained in the SIP.

The CTR contains both saltwater and freshwater criteria. According to 40 CFR § 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time; saltwater criteria apply at salinities of 10 ppt and above at locations where this occurs 95 percent or more of the time; and at salinities between 1 and 10 ppt the more stringent of the two apply. The CTR criteria for saltwater or human health for consumption of organisms, whichever is more stringent, are used to develop the effluent limitations in this Order to protect the beneficial uses of Long Beach Inner Harbor.

VI. Derivation of Effluent limitations

A. Reasonable Potential Analysis (RPA)

In accordance with Section 1.3 of the SIP, the Regional Board conducted a reasonable potential analysis for each priority pollutant with an applicable criterion or objective to

determine if a WQBEL is required in the permit. The Regional Board would analyze effluent data to determine if a pollutant in a discharge has a reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have a reasonable potential, numeric WQBELs are required. The RPA considers water quality objectives outlined in the CTR, NTR, as well as the Basin Plan. To conduct the RPA, the Regional Board must identify the maximum observed effluent concentration (MEC) for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

1. Trigger 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limit is needed.
2. Trigger 2 – If $MEC < C$ and background water quality (B) $> C$, a limit is needed.
3. Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and ambient data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Board to conduct the RPA. Upon review of the data, and if the Regional Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

The RPA was performed for the priority pollutants for which effluent data were available. The calculation details are shown in Attachment C. The existing permit requires annual monitoring for the priority pollutants. Monitoring data for these pollutants are available from August 1999 through August 2002. In addition, the Regional Board issued a letter on August 3, 2001 that required HCC to monitor quarterly for priority pollutants regulated in the CTR. Monitoring data for these pollutants are available for the period from August 2001 through January 2003. Both the effluent annual monitoring data for priority pollutants and the quarterly CTR data were used in the RPA and are summarized in Attachment C.

Based on the RPA, there was reasonable potential to exceed water quality standards for beta-endosulfan, copper, cyanide, nickel, 2,3,7,8 TCDD, thallium, and zinc.

B. *Calculating WQBELs*

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

1. If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).
2. Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).
3. Where sufficient effluent and receiving water data exist, use of a dynamic model which has been approved by the Regional Board.

C. *Impaired Water Bodies in 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 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 has approved the State's 303(d) list of impaired water bodies. 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. TMDLs are of medium priority and have not been scheduled for development.

The Long Beach Inner Harbor and its major tributaries are located in the Dominguez Channel and Los Angeles/Long Beach Harbors Watershed Management Area. The Cerritos Channel is tributary to the Long Beach Inner Harbor. The 2002 State Board's California 303(d) List classifies Long Beach Harbor's Main Channel, SE, West Basin, Pier J, and Breakwater as impaired. The pollutants of concern detected in the water column, in the sediment, and in fish tissue, include DDT and PCBs (detected in fish tissue), PAHs (detected in sediment), sediment toxicity, and benthic community effects.

D. *Whole Effluent Toxicity*

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 measures mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental response on aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator

species, and/or significant alterations in population, community ecology, or receiving water biota. The existing permit contains acute toxicity monitoring requirements.

In accordance with the Basin Plan, acute toxicity limitations dictate that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. Consistent with Basin Plan, this Order includes acute toxicity limitations.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters.

Due to the intermittent nature of the discharge at the HCC facility, the discharge is not expected to contribute to chronic toxicity. Therefore, this Order does not contain chronic toxicity testing requirements. Intermittent discharges are likely to have short-term toxic effects; therefore, to be consistent with Basin Plan requirements, the proposed Order requires HCC to continue to conduct acute toxicity testing in accordance with existing permit requirements.

VII. Specific Rationale for Each Numerical Effluent Limitation

The Regional Board has determined that reasonable potential exists for all priority pollutants that are regulated under the current permit; therefore effluent limitations have been established for these pollutants. Furthermore, the requirements in the proposed Order for conventional and non-conventional pollutants (settleable solids, suspended solids, oil and grease, BOD₅) are also based on limits specified in HCC's existing permit. In addition, the proposed Order requirements for oil and grease, total suspended solids, and PCBs are also based on the Effluent Guidelines established in 40 CFR 423. The effluent limitations for pH and acute toxicity are based on the Basin Plan.

Section 402(o) of the Clean Water Act and 40 CFR 122.44(l) require that effluent limitations standards or conditions in re-issued permits are at least as stringent as in the existing permit. Therefore, existing effluent limitations for most of the regulated pollutants are carried over to this permit. In addition to these limitations, the Regional Board is implementing the CTR and SIP, and additional effluent limitations are required for those regulated pollutants that show reasonable potential to exceed water quality standards. CTR-based WQBELs are established for beta-endosulfan, copper, cyanide, nickel, 2,3,7,8 TCDD, thallium, and zinc because the values for these pollutants show reasonable potential to exceed state water quality standards.

The limit for total chromium has not been carried over to this permit because the pollutant data for chromium III and chromium VI showed no reasonable potential to exceed water quality standards. However, quarterly monitoring will be required for the trivalent and hexavalent forms of chromium to provide data to determine reasonable potential to exceed water quality criteria established for these parameters.

There is no limit for pathogens (total coliform, fecal coliform, E-coli) because the HCC wastewater effluent does not contain sanitary wastewater and is not exposed to potential sources of pathogens (e.g., birds). Thus, there is no Reasonable Potential for pathogens in the effluent.

In compliance with 40 CFR §122.45(f), mass-based limitations have also been established in the proposed Order for conventional, non-conventional, and toxic pollutants. Generally, mass-based limits ensure that proper treatment, and not dilution is employed to comply with the final effluent concentration limits. When calculating the mass-based limitations for discharges, the appropriate flow, daily maximum limitations for daily maximum mass calculations, and the monthly average limitations when calculating the monthly average mass, should be substituted in the following equation:

$$\text{Mass (lbs/day)} = \text{flow rate (MGD)} \times 8.34 \times \text{effluent limitation (mg/L)}$$

where:
 mass = mass limit for a pollutant in lbs/day
 effluent limitation = concentration limit for a pollutant, mg/L
 flow rate = discharge flow rate in MGD

The mass-based effluent limitations contained in the existing Order are based on a maximum discharge flow rate of 274,000 gpd; (the historical average for this stream was reported as 64,170). For purposes of establishing mass-based effluent limitations for this Order, the maximum discharge flow rate, 274,000 gpd (0.274 MGD), was used.

Effluent limitations established in this Order are applicable to wastewater discharges from the NPDES Discharge Serial No. 001 (Latitude 33°46'15", Longitude 118°13'25").

Constituent (units)	Average Monthly Discharge Limitations		Maximum Daily Discharge Limitations		Rationale ¹
	Concentration	Mass ² (lbs/day)	Concentration	Mass ² (lbs/day)	
pH (standard units)	Between 6.5 – 8.5	--	Between 6.5 – 8.5	--	BP
Temperature (deg. F)	86	--	86	--	BP, TP, BPJ
Settleable Solids (ml/L)	0.1	0.2	0.3	0.7	E
Total Suspended Solids (mg/L)	30	69	100	229	E, EG
Oil and Grease (mg/L)	10	23	15	34	E, EG
BOD ₅ @ 20°C (mg/L)	20	46	60	137	E
beta-Endosulfan (µg/L)	0.007	0.02	0.01	0.03	CTR, SIP
Copper (µg/L) ³	2.9	6.6	5.8	13	CTR, SIP
Cyanide (µg/L)	0.5	1.1	1.0	2.3	CTR, SIP
Nickel (µg/L) ³	6.8	16	14	31	CTR, SIP
Thallium (µg/L) ³	6.3	14	13	29	CTR, SIP
2,3,7,8 TCDD (µg/L)	1.4 x 10 ⁻⁸	3.2 x 10 ⁻⁸	2.8 x 10 ⁻⁸	6.4 x 10 ⁻⁷	CTR, SIP
Zinc (µg/L) ³	47	109	95	217	CTR, SIP
Acute Toxicity (% survival)	⁴	--	--	--	BP
PCBs (µg/L)	0	0	0	0	E, EG

¹ BP = Basin Plan, E = Existing Permit, CTR = California Toxics Rule, SIP = State Implementation Policy, TP = California Thermal Plan, BPJ = Best Professional Judgment, EG = Effluent Guidelines and Standards (40 CFR Part 423)

² The mass-based effluent limitations for pollutants are based on a maximum discharge flow rate of 274,000 gpd.

³ Discharge limitations for these metals are expressed as total recoverable.

⁴ Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70 % survival.

VIII. Compliance Schedule

Based on effluent monitoring data submitted by the Discharger, a comparison between the MEC and calculated AMEL values shows that the Discharger will be unable to consistently comply with effluent limitations established in the proposed Order for beta-endosulfan, copper, cyanide, nickel, 2,3,7,8 TCDD, thallium, and zinc. Hence, interim limits have been prescribed for these constituents.

As a result, the proposed Order contains a compliance schedule that allows the Discharger up to 1 year to comply with the final effluent limitations. Within 90 days after the effective date of the Order, the Discharger must prepare and submit a final compliance plan that describes the steps that will be taken to ensure compliance with applicable limitations.

40 CFR 131.88(e) provides conditions under which interim effluent limits and compliance schedules may be issued. The SIP allows inclusion of an interim limit with a specific compliance schedule included in a NPDES permit for priority pollutants if the limit for the priority pollutant is CTR-based. Because the CTR-based effluent limits for beta-endosulfan, copper, cyanide, nickel, 2,3,7,8 TCDD, thallium, and zinc appear infeasible for the Discharger at this time, interim limits for beta-endosulfan, copper, cyanide, nickel, 2,3,7,8 TCDD, thallium, and zinc are contained in this Order.

The SIP requires that the Regional Board establish other interim requirements such as requiring the discharger to develop a pollutant minimization plan and/or source control measures and participate in the activities necessary to achieve final effluent limitations. Once final limitations become effective, the interim limitations will no longer apply. These interim limitations shall be effective until April 1, 2005, after which, the Discharger shall demonstrate compliance with the final effluent limitations.

Pursuant to the SIP (Section 2.2.1, Interim Requirements under a Compliance Schedule), when compliance schedules are established in an Order, interim limitations must be included based on current treatment facility performance or existing permit limitations, whichever is more stringent to maintain existing water quality. Order No. 97-053 does not contain effluent limitations for beta-endosulfan, copper, cyanide, nickel, 2,3,7,8 TCDD, thallium, and zinc, therefore the MEC will serve as the interim effluent limit concentration for these constituents. It should be noted that the Board may take appropriate enforcement actions if interim limitations and requirements are not met.

From the effective date of this Order until April 1, 2005, the discharge of effluent from Discharge Serial No. 001 in excess of the following is prohibited:

Constituent (units)	Daily Maximum Concentration	Rationale
beta-endosulfan (µg/L)	0.011	MEC
Copper (µg/L)	15	MEC
Cyanide (µg/L)	18	MEC
Nickel (µg/L)	16	MEC
Thallium (µg/L)	20	MEC
2,3,7,8 TCDD (µg/L)	8.6×10^{-8}	MEC
Zinc (µg/L)	420	MEC

¹MEC = Maximum Effluent Concentration.

According to the SIP, pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. Dioxins have strong bioaccumulative properties and can cause adverse human health impacts. Because the RPA determined that 2,3,7,8 TCDD could exceed the applicable criteria, this permit requires that the Discharger develop and implement a pollution minimization plan for 2,3,7,8 TCDD. Described in detail in section 2.4.5.1 of the SIP, pollution minimization includes: monitoring for potential sources of the pollutants, control strategy, control measure implementation, and an annual status report sent to the Regional Board. Quarterly monitoring for the first year, and annual monitoring thereafter will be required for 2,3,7,8 TCDD.

The Discharger also will be required to develop and implement a compliance plan that will identify the measures that will be taken to reduce the concentrations of beta-endosulfan, copper, cyanide, nickel, thallium, and zinc in their discharge. This plan should evaluate options to achieve compliance with the revised permit limitations. These options can include, for example, evaluation and updating available treatment unit processes, upgrading the system if necessary, and maintaining proper operation and maintenance of the treatment system.

IX. Monitoring Requirements

The previous permit for HCC required daily monitoring for flow, pH, and temperature. Order number 97-053 also required monthly monitoring for BOD₅, oil and grease, settleable solids, total suspended solids, and total chromium. Further, the existing permit required quarterly monitoring for PCBs, and acute toxicity. Remaining priority pollutants listed on page T-4 of the Monitoring and Reporting Program CI-6797 also were required to be monitored annually. The existing monitoring and reporting program states that the Discharger may submit a statement that total chromium and PCBs have not been added to the system in lieu of analysis.

The Regional Board also issued a letter on August 3, 2001 that required HCC to monitor for priority pollutants regulated in the CTR, and submit the data by March 2003.

Monitoring requirements are discussed in greater detail in Section III of the Monitoring and Reporting Program CI-6797.

A. *Effluent Monitoring*

To demonstrate compliance with effluent limitations established in the permit, this Order carries over the existing monitoring requirements for most parameters.

Monitoring once per day for flow, temperature and pH, and monthly for BOD₅, oil and grease, settleable solids, and total suspended solids, as required in the existing permit is required to ensure compliance with effluent limitations.

The monthly monitoring for ammonia is required to ensure compliance with the Basin Plan objectives for ammonia and because the facility uses ammonia in its processes.

The monthly monitoring requirement for total chromium has been replaced with a quarterly monitoring requirement for the trivalent and hexavalent forms of chromium in order to determine the presence of chromium in the discharge. Because chromium III and chromium VI were detected in the discharge, it is reasonable to require quarterly monitoring for these constituents.

The existing permit also established quarterly monitoring for acute toxicity. The monitoring frequency for acute toxicity will be carried over to this Order.

The monitoring requirement for PCBs will be reduced to annually because the discharge did not have any detectable levels for these constituents during the previous permit term. The previous permit included a clause allowing the permittee to submit a statement that total chromium and PCBs were not added to the system, in lieu of an analysis for PCBs and total chromium. In compliance with the SIP, monitoring is required to determine reasonable potential for all priority pollutants, and therefore the clause exempting monitoring will not be carried over to this permit.

Monitoring data during the previous permit term suggest that the Discharger has the potential to exceed the established effluent limitations for beta-endosulfan, copper, cyanide, nickel, 2,3,7,8 TCDD, thallium, and zinc. Therefore, the Board is establishing monitoring frequencies for these constituents, to demonstrate compliance with interim and final limitations. Monthly monitoring will be required for beta-endosulfan, copper, cyanide, nickel, thallium, and zinc.

Due to the presence of dioxins in the effluent, quarterly monitoring will be required for 2,3,7,8 TCDD during the first permit year, after which monitoring will be reduced to annually. As part of the quarterly monitoring requirement for 2,3,7,8 TCDD, the SIP requires monitoring for the 17 congeners. The quarterly monitoring shall be a grab sample during the first year of the permit and once during each subsequent year of the

permit. The Discharger is required to calculate Toxic Equivalence (TEQ) for each congener by multiplying its analytical concentration by the appropriate Toxicity Equivalence Factors (TEF) provided below.

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

In addition, this Order carries over the quarterly monitoring requirement for acute toxicity.

B. *Effluent Monitoring for Reasonable Potential Determination*

As discussed earlier, the Regional Board issued a letter on August 3, 2001 that required HCC to monitor for priority pollutants regulated in the CTR, and submit the data by March, 2003. The Discharger has submitted data for the period from August 1999 to January 2003, and these data were used to conduct the RPA. The SIP states that the Regional Board will require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established.

Accordingly, the Regional Board is requiring, as part of the Monitoring and Reporting Program, that the Discharger conduct effluent monitoring of the priority pollutants as listed below, annually. Further, the Discharger must analyze pH and hardness at the same time as priority pollutants, and perform general observations of the receiving water.

This interim monitoring shall occur at the following locations:

- Effluent discharge point (Discharge Serial No. 001).
- Receiving water. The monitoring stations shall be immediately upstream from the discharge point.

C. *Effluent Monitoring Frequency*

The required monitoring frequency and type of sample of the effluent for toxic pollutants are listed below.

Flow	gal/day	--	Daily
pH	Standard units	Grab	Daily
Temperature	Degrees, Fahrenheit	Grab	Daily
Oil and Grease	mg/L	Grab	Monthly
BOD ₅	mg/L	Grab	Monthly
Settleable Solids	mg/L	Grab	Monthly
Total Suspended Solids	mg/L	Grab	Monthly
Ammonia	mg/L	Grab	Monthly
beta-Endosulfan	µg/L	Grab	Monthly ⁽²⁾
Copper ⁽¹⁾	µg/L	Grab	Monthly ⁽²⁾
Cyanide ⁽¹⁾	µg/L	Grab	Monthly ⁽²⁾
Nickel ⁽¹⁾	µg/L	Grab	Monthly ⁽²⁾
Thallium ⁽¹⁾	µg/L	Grab	Monthly ⁽²⁾
Zinc ⁽¹⁾	µg/L	Grab	Monthly ⁽²⁾
2,3,7,8 TCDD ⁽³⁾	µg/L	Grab	Quarterly
Chromium-III ⁽¹⁾	µg/L	Grab	Quarterly
Chromium-VI ⁽¹⁾	µg/L	Grab	Quarterly
Toxicity-acute	% survival	Grab	Quarterly
Polychlorinated biphenyls	µg/L	Grab	Annually
Hardness (as CaCO ₃)	mg/L	Grab	Annually
1,1-Dichloroethane	µg/L	Grab	Annually
1,1-Dichloroethylene	µg/L	Grab	Annually
1,1,1-Trichloroethane	µg/L	Grab	Annually
1,1,2-Trichloroethane	µg/L	Grab	Annually
1,1,2,2-Tetrachloroethane	µg/L	Grab	Annually
1,2-Dichlorobenzene	µg/L	Grab	Annually
1,2-Dichloroethane	µg/L	Grab	Annually
1,2-Dichloropropane	µg/L	Grab	Annually
1,3-Dichlorobenzene	µg/L	Grab	Annually
1,3-Dichloropropylene	µg/L	Grab	Annually
1,4-Dichlorobenzene	µg/L	Grab	Annually
Acrolein	µg/L	Grab	Annually
Acrylonitrile	µg/L	Grab	Annually
Benzene	µg/L	Grab	Annually
Bromoform	µg/L	Grab	Annually
Methyl Bromide	µg/L	Grab	Annually
Carbon Tetrachloride	µg/L	Grab	Annually
Chlorobenzene	µg/L	Grab	Annually
Chlorodibromomethane	µg/L	Grab	Annually
Chloroethane	µg/L	Grab	Annually

Chloroform	µg/L	Grab	Annually
Dichlorobromomethane	µg/L	Grab	Annually
Methylene Chloride	µg/L	Grab	Annually
Ethylbenzene	µg/L	Grab	Annually
Tetrachloroethylene	µg/L	Grab	Annually
Toluene	µg/L	Grab	Annually
1,2-Trans Dichloroethylene	µg/L	Grab	Annually
Trichloroethylene	µg/L	Grab	Annually
Vinyl Chloride	µg/L	Grab	Annually
Benzo (a) Anthracene	µg/L	Grab	Annually
1,2-Diphenylhydrazine	µg/L	Grab	Annually
1,2,4-Trichlorobenzene	µg/L	Grab	Annually
2-Chlorophenol	µg/L	Grab	Annually
2,4-Dichlorophenol	µg/L	Grab	Annually
2,4-Dimethylphenol	µg/L	Grab	Annually
2,4-Dinitrophenol	µg/L	Grab	Annually
2,4-Dinitrotoluene	µg/L	Grab	Annually
2,4,6-Trichlorophenol	µg/L	Grab	Annually
2,6-Dinitrotoluene	µg/L	Grab	Annually
2-Nitrophenol	µg/L	Grab	Annually
2-Chloroethyl vinyl ether	µg/L	Grab	Annually
2-Chloronaphthalene	µg/L	Grab	Annually
3,3'-Dichlorobenzidine	µg/L	Grab	Annually
Benzo (b) Fluoranthene	µg/L	Grab	Annually
3-Methyl-4-Chlorophenol	µg/L	Grab	Annually
2-Methyl-4,6-Dinitrophenol	µg/L	Grab	Annually
4-Nitrophenol	µg/L	Grab	Annually
4-Bromophenyl phenyl ether	µg/L	Grab	Annually
4-Chlorophenyl phenyl ether	µg/L	Grab	Annually
Acenaphthene	µg/L	Grab	Annually
Acenaphthylene	µg/L	Grab	Annually
Anthracene	µg/L	Grab	Annually
Benzidine	µg/L	Grab	Annually
Benzo (a) Pyrene	µg/L	Grab	Annually
Benzo (g,h,i) Perylene	µg/L	Grab	Annually
Benzo (k) Fluoranthene	µg/L	Grab	Annually
Bis (2-Chloroethoxyl) methane	µg/L	Grab	Annually
Bis(2-Chloroethyl) ether	µg/L	Grab	Annually
Bis(2-Chloroisopropyl) ether	µg/L	Grab	Annually
Bis(2-ethylhexyl)phthalate	µg/L	Grab	Annually
Butyl benzyl phthalate	µg/L	Grab	Annually
Chrysene	µg/L	Grab	Annually
di-n-Butyl phthalate	µg/L	Grab	Annually
di-n-Octyl phthalate	µg/L	Grab	Annually
Dibenzo(a,h)-anthracene	µg/L	Grab	Annually
Diethyl phthalate	µg/L	Grab	Annually
Dimethyl phthalate	µg/L	Grab	Annually
Fluoranthene	µg/L	Grab	Annually
Fluorene	µg/L	Grab	Annually
Hexachloro-cyclopentadiene	µg/L	Grab	Annually

Hexachlorobenzene	µg/L	Grab	Annually
Hexachlorobutadiene	µg/L	Grab	Annually
Hexachloroethane	µg/L	Grab	Annually
Indeno(1,2,3,cd)-pyrene	µg/L	Grab	Annually
Isophorone	µg/L	Grab	Annually
N-Nitrosodiphenyl amine	µg/L	Grab	Annually
N-Nitrosodimethyl amine	µg/L	Grab	Annually
N-Nitroso-di-n-propyl amine	µg/L	Grab	Annually
Naphthalene	µg/L	Grab	Annually
Nitrobenzene	µg/L	Grab	Annually
Pentachlorophenol	µg/L	Grab	Annually
Phenanthrene	µg/L	Grab	Annually
Phenol	µg/L	Grab	Annually
Pyrene	µg/L	Grab	Annually
Antimony	µg/L	Grab	Annually
Arsenic	µg/L	Grab	Annually
Beryllium	µg/L	Grab	Annually
Cadmium	µg/L	Grab	Annually
Lead	µg/L	Grab	Annually
Mercury ⁽¹⁾	µg/L	Grab	Annually
Selenium ⁽¹⁾	µg/L	Grab	Annually
Silver	µg/L	Grab	Annually
Asbestos	µg/L	Grab	Annually
4,4'-DDD	µg/L	Grab	Annually
4,4'-DDE	µg/L	Grab	Annually
4,4'-DDT	µg/L	Grab	Annually
alpha-Endosulfan	µg/L	Grab	Annually
alpha-BHC	µg/L	Grab	Annually
Aldrin	µg/L	Grab	Annually
beta-BHC	µg/L	Grab	Annually
Chlordane	µg/L	Grab	Annually
delta-BHC	µg/L	Grab	Annually
Dieldrin	µg/L	Grab	Annually
Endosulfan Sulfate	µg/L	Grab	Annually
Endrin	µg/L	Grab	Annually
Endrin Aldehyde	µg/L	Grab	Annually
Heptachlor	µg/L	Grab	Annually
Heptachlor Epoxide	µg/L	Grab	Annually
Gamma-BHC	µg/L	Grab	Annually
Toxaphene	µg/L	Grab	Annually

(1) All metals shall be reported as total recoverable.

(2) Monthly monitoring will be required for the first year of the permit, after which monitoring frequency will be required quarterly.

(3) The Discharger must monitor the effluent for the presence of the 17 congeners of 2,3,7,8-TCDD listed in Attachment A, quarterly for the first year of the permit and annually thereafter. You must report for each congener the analytical results of the effluent monitoring, including the quantifiable limit and the Method Detection Limit (MDL), and the measured or estimated concentration. The Discharger must multiply each measured or estimated congener concentration by its respective Toxicity Equivalent Factors (TEFs) and

report the sum of these values.

D. Receiving Water Monitoring

The Discharger is required to perform general observations of the receiving water when discharges occur and report the observations in the quarterly monitoring report. The Regional Board in assessing potential impacts of future discharges will use data from these observations. 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 are required:

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

E. Storm Water Monitoring

The Discharger is required to measure and record the rainfall each day of the month. The Discharger is also required to conduct visual observations of all storm water discharges of all storm water discharge locations to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity and odor. Furthermore, the Discharger shall implement the Storm Water Pollution Prevention Plan Requirements (SWPPP) as is enumerated in Attachment M of the WDR Order No. R4-2004-0071.