California Regional Water Quality Control Board

Los Angeles Region

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Linda S. Adams
Agency Secretary

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Arnold Schwarzenegger
Governor

ORDER NO. R4-2007-0015
NPDES NO. CA0000680

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

Discharger	BP West Coast Products LLC
Name of Facility	BP Carson Refinery
Facility Address	1801 East Sepulveda Boulevard
	Carson, CA 90749
	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	Steam condensates, service water, irrigation runoff, and fire hydrant water	33º, 49', 17" N	118 º, 14', 27" W	Dominguez Channel
002		33º, 49', 10" N	118 º, 14', 25" W	Dominguez Channel
003		33º, 49', 03" N	118 º, 14', 24" W	Dominguez Channel
004		33º, 49', 02" N	118 º, 14', 24" W	Dominguez Channel
005		33º, 48', 57" N	118 º, 14', 03" W	Dominguez Channel
004	Process wastewater commingled with storm water	33 º, 49', 02" N	118 º, 14', 24" W	Dominguez Channel

This Order was adopted by the Regional Water Board on:	March 1, 2007
This Order shall become effective on:	April 1, 2007
This Order shall expire on:	February 10, 2012
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Board have classified this discharge as a major 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IT IS HEREBY ORDERED, that Order No. 01-078 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the CWC and regulations adopted thereunder, and the provisions of the federal CWA, and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements herein.

I, Jonathan 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, California Regional Water Quality Control Board, Los Angeles Region, on March 1, 2007.

Jonathan S. Bishop, Executive Officer

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

ORDER NO. R4-2007-0015
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I. Facility Information

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

Discharger	BP West Coast Products LLC
Name of Facility	BP Carson Refinery
Facility Address	1801 East Sepulveda Boulevard
	Carson, CA 90749
	Los Angeles County
Facility Contact, Title, and Phone	Stefan Gogosha, Water Compliance Engineer, (310) 816 8135
Mailing Address	P.O. Box 6210, Carson, CA 90749
Type of Facility	Industrial (IND)
Facility Permitted Flow	4.4 million gallons per day (MGD)

II. Findings

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

A. **Background.** BP West Coast Products LLC (hereinafter Discharger) is currently discharging under Order No. 01-078 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0000680. The Discharger submitted a Report of Waste Discharge, dated October 4, 2005, and applied for a NPDES permit renewal to discharge wastewater and storm water from BP Carson Refinery**,** hereinafter Facility.

B. **Facility Description.** The Discharger owns and operates the petroleum oil refinery. The refinery processes 300,000 barrels per day of crude to produce gasoline, diesel fuel, jet fuel, sulfur, coke, liquefied petroleum gas (LPG), and polypropylene.

Waste Stream 1 consists of low volume wastes of steam condensate, atmospheric condensate, noncontaminated service water, air conditioning condensate and fire system water. During normal operations, low volume wastes are treated at the centralized wastewater treatment system and discharged to the Los Angeles County Sanitation Districts' sewer system. In the event of emergency or pump failure, low volume wastes are discharged into Dominguez Channel through Discharge Points. 001, 002, 003, 004 and 005. The discharges are intermittent with flow rates rarely exceeding 0.045 million gallons per day (MGD).

Waste Stream 2 consists of process wastewater from the refinery and storm water runoff from process areas while Waste Stream 3 consists of boiler blowdown from boiler feed water in the refinery and cogeneration facility. The wastewater and storm water are normally treated at the centralized wastewater treatment system and discharged to the Los Angeles County Sanitation District's sewer system. However, when rainfall exceeds 0.1 inch, the refinery is required to divert some of the flow to the three storage tanks (Tanks 19, 20 and 21) shown in Attachment C. When the tank capacity is exceeded, the commingled wastewater and storm water is diverted to the two retention basins (East Retention Basin and West Retention Basin) and a 50-million gallon reservoir (Reservoir 505) that holds the water for 24 or more hours. After cessation of the storm, the stored wastewater and storm water is sent to the sewer during off-peak hours. However, during extended storms when the storage capacity of Reservoir 505 is filled to 40 million gallons and discharge to the sewer is restricted, the wastewater and storm water in the reservoir is treated with a mobile carbon absorption filter/ion exchange or membrane unit and discharged to Dominguez Channel through Discharge Point 004 at the rate of up to 4.4 MGD. The discharge consists of about 70% storm water and about 30% wastewater with boiler blowdown contributing less than 5% of the total discharge. The discharge continues until the reservoir water is reduced to 20 million gallons or until discharge to the sewer is allowed. The discharge point names, locations and the waste stream discharged are in the following table.

Discharge Point Designation and Location

Discharge Point Designation in this Order	Discharge Point Designation in the Existing Order No. 01-078	Location	Waste Stream Discharged
No designation	Discharge Serial No. 002	33°48'35" North, 118°14'20" West	None
Discharge Point 001	Discharge Serial No. 5	33°49'02" North, 118°14'24" West	Waste Stream 1
Discharge Point 002	Discharge Serial No. 10	33°49'10" North, 118°14'25" West	Waste Stream 1
Discharge Point 003	Discharge Serial No. 11	33°49'03" North, 118°14'24" West	Waste Stream 1
Discharge Point 004	Discharge Serial No. 12	33°49'02" North, 118°14'24" West	Waste Stream 1, Waste Stream 2 and Waste Stream 3
Discharge Point 005	Discharge Serial No. 23	33°48'57" North, 118°14'03" West	Waste Stream 1

The Facility did not discharge any treated process wastewater and process wastewater mixed with storm water during the entire term of the existing Order. Only low volume wastewater was discharged intermittently on an average of approximately 2 to 3 times per year and each discharge lasting less than 24-hour duration. The Discharger wants to keep the option of discharging treated process wastewater in the permit for emergency cases only, resulting from heavy rain. The Discharger is also planning to eliminate the discharge of low volume wastewater to storm drains.

Attachment B provides a topographic map of the area around the Facility. Attachment C provides wastewater flow schematics of the Facility.

C. **Legal Authorities.** This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (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 J, 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 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.

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 Effluent Limitations Guidelines and Standards for the Petroleum Refining Point Source Category in 40 CFR Part 419 and/or 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.

H. **Water Quality Control Plans.** The Regional Water Board adopted *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to Dominguez Channel and Dominguez Channel Estuary are as follows:

Discharge Point	Receiving Water Name	Beneficial Use(s)
001, 002, 003, 004, 005	Dominguez Channel and Dominguez Channel Estuary	**Dominguez Channel to Estuary:** Existing: Non-contact water recreation (REC-2) and preservation of rare and endangered species (RARE). Potential: Municipal and domestic supply (MUN); water contact recreation (REC-1); warm freshwater habitat (WARM); and wildlife habitat (WILD).
		Dominguez Channel Estuary: Existing: Water contact recreation (REC-1); non-contact water recreation (REC-2); commercial and sport fishing (COMM); estuarine habitat (EST); marine habitat (MAR); wildlife habitat (WILD); preservation of rare and endangered species (RARE); migration of aquatic organisms (MIGR); and spawning, reproduction, and/or early development (SPWN). Potential: Navigation (NAV).

The 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.

Requirements of this Order specifically implement the applicable Water Quality Control Plans.

I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.

J. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

K. **Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under Section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order does include compliance schedules and interim effluent limitations and discharge specifications. A detailed discussion of the basis for the compliance schedule(s) and interim effluent limitation(s) and discharge specifications is included in the Fact Sheet (Attachment F).

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 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 quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet (Attachment F) 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 federal regulations at 40 CFR § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. Some effluent limitations in this Order are less stringent that those in the previous Order. As discussed in detail in the Fact Sheet (Attachment F) this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

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 Monitoring and Reporting Program (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. **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.

Q. **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 through Discharge Points 001, 002, 003, 004, and 005 shall be limited to low volume wastes including steam condensate, atmospheric condensate, non-contaminated service water, air conditioning condensate, irrigation runoff and fire hydrant water only, as proposed.

B. Wastes discharged through Discharge Point 004 shall be limited to low volume wastes and refinery process wastewater commingled with storm water and boiler blowdown runoff. The discharge of refinery process wastewater commingled with storm water and boiler blowdown shall only occur during storm events when the holding capacity of the reservoirs is exceeded.

C. Discharges of contaminated 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, tributaries to Dominguez Channel, or waters of the State are prohibited

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

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

F. 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 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.

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

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

IV. Effluent Limitations and Discharge Specifications

A. Effluent Limitations – Discharge Point 001, 002, 003, 004 and 005

1. Final Effluent Limitations For Low Volume Wastes – Discharge Points 001, 002, 003, 004 and 005

a. The discharge of low volume waste shall maintain compliance with the following effluent limitations at Discharge Points 001, 002, 003, 004, and 005, with compliance measured at Monitoring Locations M-001, M-002, M-003, M-004 and M-005, as described in the attached MRP (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Biochemical Oxygen Demand 5-day @ 20°C (BOD)	mg/L	20	30	---	---
	lbs/day[1]	7.5	11	---	---
Oil and Grease	mg/L	10	15	---	---
	lbs/day[1]	3.8	5.6	---	---
pH	standard units	---	---	6.5	8.5
Total Suspended Solids (TSS)	mg/L	50	75	---	---
	lbs/day[1]	19	28	---	---
Priority Pollutants					
Copper, Total Recoverable	µg/L	2.4	4.8	---	---
	lbs/day[1]	0.0009	0.0018	---	---
Mercury, Total Recoverable	µg/L	0.05	0.1	---	---
	lbs/day[1]	0.000019	0.000038	---	---
Nickel, Total Recoverable	µg/L	6.7	13	---	---
	lbs/day[1]	0.0025	0.0051	---	---

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Silver, Total Recoverable	µg/L	0.95	1.9	---	---
	lbs/day[1]	0.00036	0.00071	---	---
Zinc, Total Recoverable	µg/L	37	95	---	---
	lbs/day[1]	0.014	0.036	---	---
Methylene chloride	µg/L	1,600	3,210	---	---
	lbs/day[1]	0.60	1.2	---	---
Pentachlorophenol	µg/L	6.5	13	---	---
	lbs/day[1]	0.0024	0.0049	---	---
Benzo(a)Anthracene	µg/L	0.049	0.098	---	---
	lbs/day[1]	0.000018	0.000037	---	---
Chrysene	µg/L	0.049	0.098	---	---
	lbs/day[1]	0.000018	0.000037	---	---
Fluoranthene	µg/L	42	742	---	---
	lbs/day[1]	0.016	0.28	---	---
Aldrin	µg/L	0.00014	0.00028	---	---
	lbs/day[1]	5.3×10^{-8}	11×10^{-8}	---	---
4,4'-DDE	µg/L	0.00059	0.00118	---	---
	lbs/day[1]	2.2×10^{-7}	4.4×10^{-7}	---	---
Heptachlor Epoxide	µg/L	0.00011	0.00022	---	---
	lbs/day[1]	4.1×10^{-8}	8.3×10^{-8}	---	---
Non-Conventional Pollutants					
Detergent (MBAS)	µg/L	---	0.5	---	---
	lbs/day[1]	---	0.19	---	---
Residual Chlorine	µg/L	---	0.1	---	---
	lbs/day[1]	---	0.038	---	---
Sulfides	µg/L	---	1.0	---	---
	lbs/day[1]	---	0.38	---	---
Settleable Solids	ml/L	0.1	0.3	---	---
Temperature	°F	---	86	---	---
Turbidity	NTU	50	75	---	---
Xylene	µg/L	---	10	---	---
	lbs/day[1]	---	0.0038	---	---

[1] based on a flow of 0.045 MGD

b. There shall be no acute toxicity in the discharge of low volume waste. The acute toxicity of the effluent shall be such that the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least ninety percent (90%) and no single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in MRP in Attachment E.

2. Final Effluent Limitations for Process Wastewater Commingled with Storm Water and Boiler Blowdown – Discharge Point 004

a. The discharge of refinery process wastewater commingled with storm water and boiler blowdown shall maintain compliance with the following effluent limitations

at Discharge Point 004, with compliance measured at Monitoring Location M-004, as described in the attached MRP (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Biochemical Oxygen Demand 5-day @ 20°C (BOD)	mg/L	20	30		
	lbs/day	733	1099	---	---
Oil and Grease	mg/L	10	15		
	lbs/day	366	550	---	---
pH	standard units	---	---	6.5	8.5
Total Suspended Solids (TSS)	mg/L	50	75		
	lbs/day	1,833	2,745	---	---
Priority Pollutants					
Chromium (VI)	µg/L	46	106		
	lbs/day	1.7	3.9	---	---
Copper, Total Recoverable	µg/L	2.4	4.8	---	---
	lbs/day[1]	0.086	0.17	---	---
Mercury, Total Recoverable	µg/L	0.05	0.10	---	---
	lbs/day[1]	0.0018	0.0036	---	---
Silver, Total Recoverable	µg/L	0.95	1.9	---	---
	lbs/day[2]	0.034	0.068	---	---
Zinc, Total Recoverable	µg/L	45	90	---	---
	lbs/day[1]	1.63	3.3	---	---
Cyanide	µg/L	0.5	1.0	---	---
	lbs/day[2]	0.018	0.036	---	---
Benzene	µg/L	1.0	21	---	---
	lbs/day[1]	0.036	0.76	---	---
Carbon Tetrachloride	µg/L	---	0.5	---	---
	lbs/day[1]	---	0.018	---	---
1,1-Dichloroethane	µg/L	---	5	---	---
	lbs/day[1]	---	0.18	---	---
1,2-Dichloroethane	µg/L	---	0.5	---	---
	lbs/day[1]	---	0.018	---	---
1,1-Dichloroethylene	µg/L	3.2	6	---	---
	lbs/day[1]	0.12	0.22	---	---
Methylene chloride	µg/L	1,600	3,210	---	---
	lbs/day[1]	58	116	---	---
Tetrachloroethylene	µg/L	---	5	---	---
	lbs/day[1]	---	0.18	---	---
Trichloroethylene	µg/L	---	5	---	---
	lbs/day[1]	---	0.18	---	---
Vinyl Chloride	µg/L	---	0.5	---	---
	lbs/day[1]	---	0.018	---	---
Pentachlorophenol	µg/L	6.5	13	---	---
	lbs/day[1]	0.23	0.47	---	---

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
2,4,6-Trichlorophenol	µg/L	1.0	---	---	---
	lbs/day[1]	0.036	---	---	---
1,2-Dichlorobenzene	µg/L	17,000	34,105	---	---
	lbs/day[1]	612	1,229	---	---
1,3-Dichlorobenzene	µg/L	2,600	5,216	---	---
	lbs/day[1]	94	188	---	---
1,4-Dichlorobenzene	µg/L	64	5,216	---	---
	lbs/day[1]	2.3	188	---	---
Fluoranthene	µg/L	42	742	---	---
	lbs/day[1]	1.5	27	---	---
Hexachlorobenzene	µg/L	0.00069	0.0015	---	---
	lbs/day[1]	0.000025	0.000054	---	---
alpha-BHC	µg/L	0.013	0.026	---	---
	lbs/day[1]	0.00047	0.00094	---	---
beta-BHC	µg/L	0.046	0.092	---	---
	lbs/day[1]	0.0017	0.0033	---	---
gamma-BHC	µg/L	0.062	0.13	---	---
	lbs/day[1]	0.0022	0.0047	---	---
Non-Conventional Pollutants					
Ammonia as N	mg/L	0.035[2]	0.233[2]		
	lbs/day	1.3	8.6	---	---
Chemical Oxygen Demand (COD)	mg/L	80	120		
	lbs/day	2,932	4,398	---	---
Chlorine, Total Residual	mg/L	---	0.10	---	---
	lbs/day[1]	---	3.6	---	---
Chromium, Total	µg/L	491	1391		
	lbs/day	18	51	---	---
Detergents (MBAS)	mg/L	---	0.50	---	---
	lbs/day[1]	---	18	---	---
Halomethanes	µg/L	480	---	---	---
	lbs/day[1]	17	---	---	---
Phenols (4AAP)	µg/L	409	1200		
	lbs/day	15	44	---	---
Settleable Solids	ml/L	0.1	0.3	---	---
Sulfides	µg/L	382	900		
	lbs/day	14	33	---	---
Temperature	°F	---	86	---	---
Xylene	µg/L	---	10	---	---
	lbs/day[1]	---	0.36	---	---

[1] based on a flow of 4.4 MGD

[2] Based on Basin Plan Amendment – Salt Water Ammonia Objectives for Inland Surface Waters (Regional Board Resolution No. 2004-022). The four day average concentration of un-ionized ammonia shall not exceed 0.035 mg/l and one hour average concentration shall not exceed 0.233 mg/L. The un-ionized ammonia concentration must be converted to total ammonia using the implementation procedure in the Regional Board Resolution

b. There shall be no acute toxicity in the discharge of commingled with storm water and boiler blowdown wastewater through Discharge Point 004. The acute toxicity of the effluent shall be such that the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least ninety percent (90%) and no single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in MRP in Attachment E.

3. Interim Effluent Limitations

a. During the period beginning April 1, 2007 and ending on June 30, 2009, the discharge of low volume wastes shall maintain compliance with the following limitations at Discharge Points 001, 002, 003, 004 and 005, with compliance measured at Monitoring Locations M-001, M-002, M-003, M-004 and M-005, as described in the attached MRP (Attachment E). These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated in this provision.

Parameter	Units	Maximum Daily
Zinc, Total Recoverable	µg/L	90
Benzo(a)Anthracene	µg/L	0.39
Chrysene	µg/L	1.0
Aldrin	µg/L	0.0071
4,4'-DDE	µg/L	0.031
Heptachlor Epoxide	µg/L	0.009

B. Land Discharge Specifications – *Not Applicable*

C. Reclamation Specifications – Not Applicable

V. Receiving Water Limitations

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in Dominguez Channel:

1. The normal ambient pH to fall below 6.5 nor exceed 8.5 units nor vary from normal ambient pH levels by more than 0.5 units.

2. Depress the concentration of dissolved oxygen to fall below 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation.

3. Surface water temperature to rise greater than 5 °F above the natural temperature of the receiving waters at any time or place. At no time the temperature shall be raised above 80 °F as a result of waste discharged.

4. Exceed total ammonia (as N) concentrations specified in the Regional Water Board Resolution No. 2002-011. Resolution No. 2002-011 revised the ammonia criteria in the 1994 Basin Plan, to be consistent with the 1999 USEPA update on ammonia criteria. Adopted on April 28, 2002, Resolution No. 2002-011 was approved by State Water Board, Office of Administrative Law and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively and is now in effect.

5. Increase the dissolved sulfide concentration to greater than 0.1 mg/L

6. The presence of visible, floating, suspended or deposited macroscopic particulate matter or foam.

7. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water.

8. Suspended or settleable materials, chemical substances or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use.

9. Toxic or other deleterious substances in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

10. Accumulation of bottom deposits or aquatic growths.

11. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.

12. The presence of substances that result in increases of biochemical oxygen demand that adversely affect beneficial uses.

13. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses.

14. Alteration of turbidity, or apparent color beyond present natural background levels.

15. Damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload the design capacity.

16. Degrade surface water communities and populations including vertebrate, invertebrate, and plant species.

17. Problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.

18. Create nuisance, or adversely effect beneficial uses of the receiving water.

19. Violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or State Water Board. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA,

or amendments thereto, the Regional Water Board will revise or modify this Order in accordance with such standards.

B. Groundwater Limitations

1. The discharge shall not cause the underlying groundwater to be degraded, to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance

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 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 objectionable 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:

(a). Violation of any term or condition contained in this Order;
(b). Obtaining this Order by misrepresentation, or failure to disclose all relevant facts; and
(c). 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 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 10%. 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 and 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 the 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 Order or another NPDES Order. 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 Order.

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:

(a). Name and general composition of the chemical,
(b). Frequency of use,
(c). Quantities to be used,
(d). Proposed discharge concentrations, and
(e). 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.

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 reasonable potential analysis (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.

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

e. This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective or the adoption of a total maximum daily load (TMDL) for the Dominguez Channel.

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

2. Special Studies, Technical Reports and Additional Monitoring Requirements

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

a. Toxicity Reduction Evaluation (TRE) Workplan. This plan (1-2 pages) shall describe the steps the permittee intends to follow in the event toxicity is detected. The Discharger shall develop the TRE workplan in accordance with the specification in Section V of the MRP, Attachment E.

b. Storm Water Monitoring. The Discharger shall measure and record the rainfall on each day of the month and make visual observations of the storm water discharge location at Discharge Point 004 during discharge in accordance with the specification in Section IX of the MRP, Attachment E.

c. Chemical Use Report. The Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this Order, a list of all chemicals and proprietary additives which could affect the waste discharge, including quantities of each. The Discharger shall monitor and report chemicals used at the Facility in accordance with the specification discussed in Section IX.B of the MRP, Attachment E.

d. Receiving Water Biomonitoring Workplan. Within 120 days of the effective day of this Order, the Discharger shall submit an updated work plan for biomonitoring of the receiving water to the Executive Officer of the Regional Water Board for approval. The work plan shall detail a proposed biomonitoring assessment in accordance with the specification discussed in Section VIII.E of the MRP, Attachment E

3. Best Management Practices and Pollution Prevention

Within 180 days of the effective date of this Order, the Discharger is required to submit the following to the Regional Water Board:

a. Updated Storm Water Pollution Prevention Plan (SWPPP). The plan shall describe site-specific management practices for minimizing contamination of storm water runoff, and for preventing contaminated storm water runoff from being discharged to waters of the State. The SWPPP shall be developed in accordance with the specification discussed in Section IX of the MRP, Attachment E, and with the requirements in Attachment G

b. Best Management Practice Plan (BMPP). This plan shall entail site-specific plans and procedures implemented and/or to be implemented to prevent hazardous

waste/material from being discharged to waters of the State. The Discharger shall develop BMPP in accordance with the specification discussed in Section IX.B of the MRP, Attachment E.

c. Updated Spill Contingency Plan. The plan shall include a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events at the site. The Discharger shall develop the plan in accordance with the specification discussed in Section IX.B of the MRP, Attachment E.

The Discharger shall implement SWPPP, BMPP and Spill Contingency Plan within 10 days of the approval by the Executive Officer. The plans shall be reviewed annually and at the same time. Updated information shall be submitted within 30 days of revision.

4. Spill Reporting Requirements

a. The Discharger shall develop and maintain a record of all spills, overflows or bypasses of raw or partially treated wastewater from its collection system or treatment plant. This record shall be made available to the Regional Water Board and USEPA upon request. On the first day of February, May, August and November (one month after the end of the fiscal quarter) of each year, the Discharger shall submit to the Regional Water Board and USEPA a report listing all spills, overflows or bypasses occurring during the previous quarter. The reports shall provide:

- the date and time of each spill, overflow or bypass;
- the location of each spill, overflow or bypass;
- the estimated volume of each spill, overflow or bypass including gross volume, amount recovered and amount not recovered;
- the cause of each spill, overflow or bypass;
- whether each spill, overflow or bypass entered a receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances;
- mitigation measures implemented; and
- corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences.
- beneficial uses impacted

b. For certain spills, overflows and bypasses of untreated or partially treated wastewater caused by a failure in the collection or treatment system, the Discharger shall make reports and conduct monitoring as required below:

i. For any spills or overflows of any volume discharged where they are, or will probably be, discharged to waters of the State, the Discharger shall immediately notify the local health agency in accordance with California Health and Safety Code section 5411.5, and if feasible the appropriate Regional Water Board staff within 2 hours of the spill reaching receiving water.

ii. For spills, overflows or bypasses of any volume that flowed to receiving waters or entered a shallow ground water aquifer or has public exposure, the Discharger shall report such spills to the Regional Water Board, by telephone or electronically as soon as possible but not later than 24 hours of knowledge of the incident. The following information shall be included in the report: location; date and time of spill; volume and nature of the spill; cause(s) of the spill; mitigation measures implemented; and corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences.

iii. For any spills or overflows of 1000 gallons or more discharged where they are, or probably will be discharged to waters of the State, the Discharger shall immediately notify the State Office of Emergency Services pursuant to Water Code section 13271.

iv. For spills, overflows or bypasses of any volume that reach receiving waters, the Discharger shall obtain and analyze sufficient grab samples for total and fecal coliforms or E. coli, and enterococcus, and relevant pollutants of concern, upstream and downstream, or upcoast and/or downcoast, of the point of entry of the spill (if feasible, accessible and safe) in order to define the geographical extent of impact of the spill. The first set of samples shall be collected as soon as possible if feasible, accessible and safe. This monitoring shall be at least on a daily basis from time the spill is known until the results of two consecutive sets of bacteriological monitoring indicate the return to the background level or cessation of monitoring is authorized by the County Department of Health Services.

v. For spills, overflows or bypasses of any volume that reach receiving waters or have the potential to enter a shallow ground water aquifer, and all spills, overflows and bypasses of 1,000 gallons or more, the Discharger shall analyze a grab sample of the spill or overflow for total and fecal coliforms or E. coli, and enterococcus, and relevant pollutants of concern depending on the area and nature of spills or overflows if feasible, accessible and safe.

vi. The Regional Water Board notification shall be followed by a written preliminary report five working days after verbal notification of the incident. Within 30 days after submitting preliminary report, the Discharger shall submit the final written report to this Regional Water Board. The written report shall document the information required in subparagraphs (b) and (d) above, monitoring results and any other information required in Provision V.E.1 of the Standard Provisions (Attachment D). An extension for submittal of the final written report can be granted by the Executive Officer for just cause. Submission of information required pursuant to California Water Code Section 13193 or pursuant to a Statewide General Waste Discharge Requirements for Wastewater Collection System Agencies shall satisfy this requirement.

5. Compliance Schedules

a. Compliance Plan. Within 1 year after the effective date of the Order, the Discharger shall develop and implement a compliance plan that will identify the measures that will be taken to reduce the concentrations of zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE, and heptachlor epoxide in the discharge of low volume wastes through Discharge Point 001, 002, 003, 004 and 005. This plan must evaluate options to achieve compliance with the limitations in this Order specified in Section IV.A.1.a and shall be developed in accordance with the specification discussed in Section IX.C of the MRP, Attachment E. The plan shall be reviewed annually.

b. Pollutant Minimization Plan (PMP).

The Discharger shall develop and submit a PMP to maintain effluent concentrations of zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE, and heptachlor epoxide at or below the effluent limitations for the discharge of low volume waste specified in Final Effluent Limitations Section IV.A.1.a of this Order. The PMP shall include quarterly monitoring of the potential sources of the above pollutants and submittal of a control strategy to maintain effluent concentrations at or below the effluent limitation. The plan shall be developed in accordance with the specification discussed in Section IX.D of the MRP, Attachment E and shall be reviewed annually.

6. Construction, Operation and Maintenance Specifications

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

7. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

8. Other Special Provisions – Not Applicable

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 ML (see Reporting Requirement in Section I.G of the MRP, Attachment E), 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 “Not Detected” (ND) or “Detected, but Not Quantified” (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 ND and the estimated concentration for DNQ for the calculation of the monthly average concentration. To be consistent with Section VII.B of this Order, 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.

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

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.

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 Order), 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.

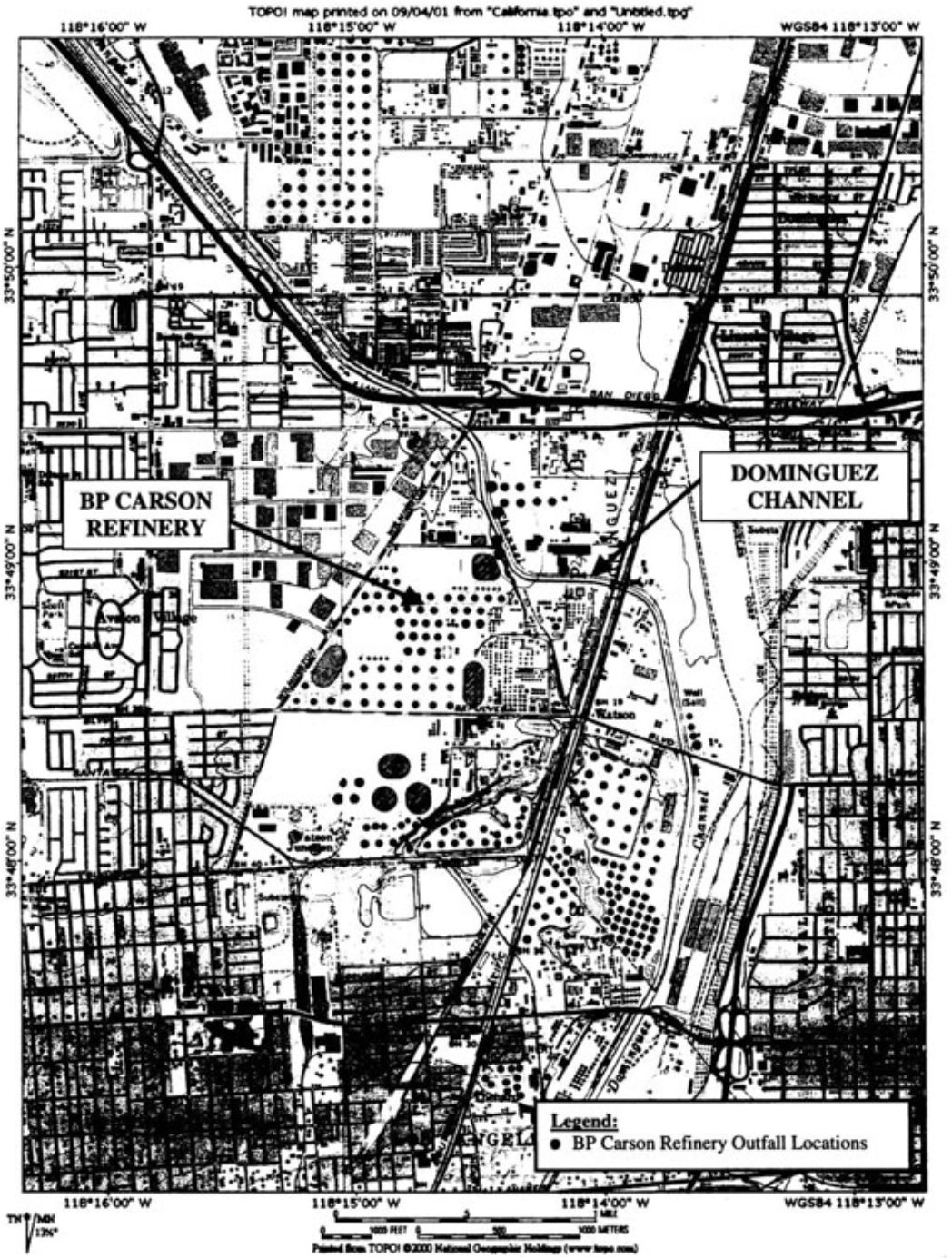
ACRONYMS AND ABBREVIATIONS

AMEL	Average Monthly Effluent Limitation
B	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	*Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BMPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-Day @ 20°C
BPT	Best practicable treatment control technology
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
Discharger	BP West Coast Products LLC
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ECA	Effluent Concentration Allowance
ELAP	California Department of Health Services Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Facility	BP Carson Refinery
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
LTA	Long-Term Average
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

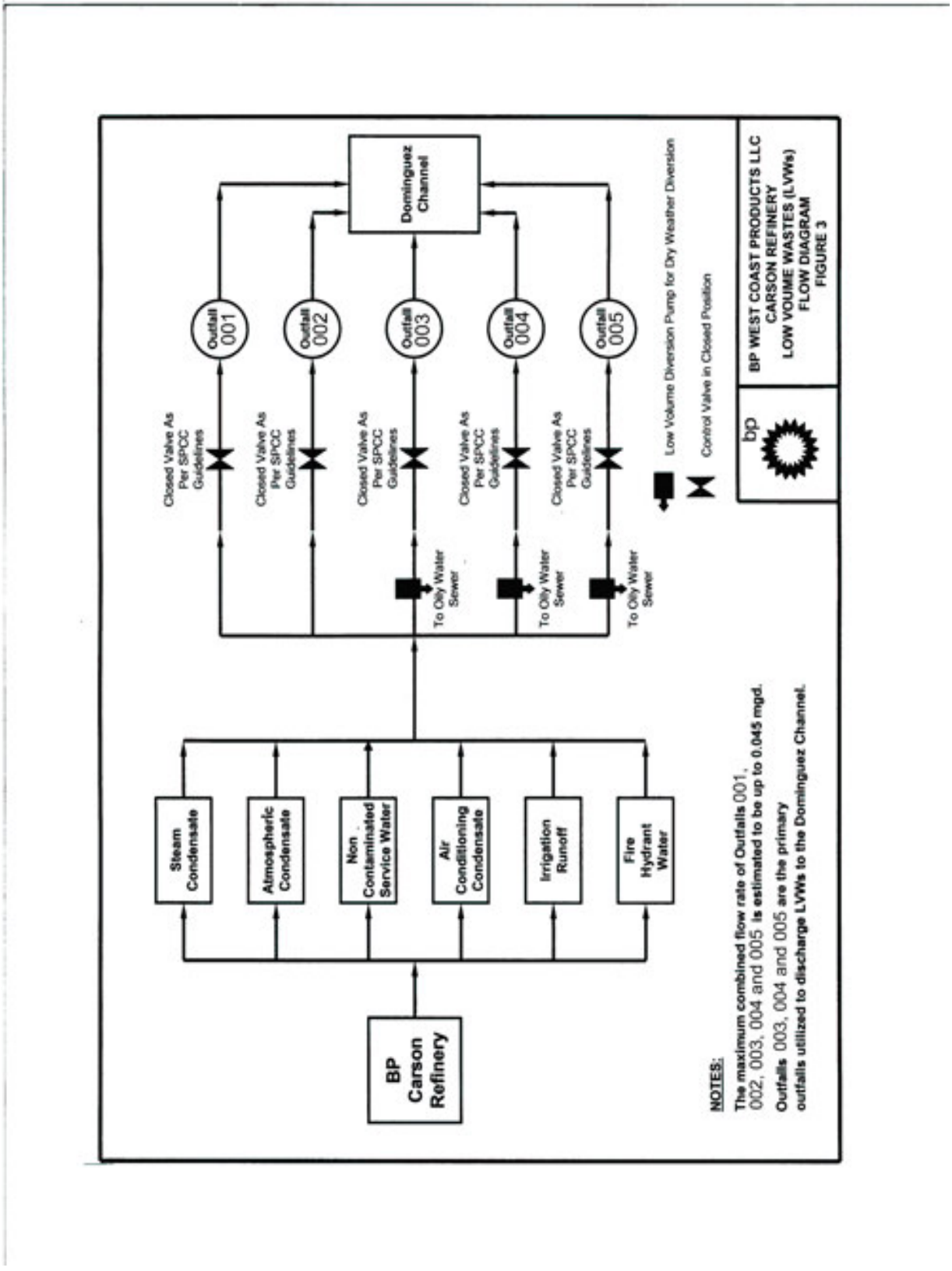
NSPS	New Source Performance Standards
NTR	National Toxics Rule
POTW	Publicly Owned Treatment Works
PMP	Pollutant Minimization Plan
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
RPA	Reasonable Potential 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_a	Acute Toxicity Unit
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

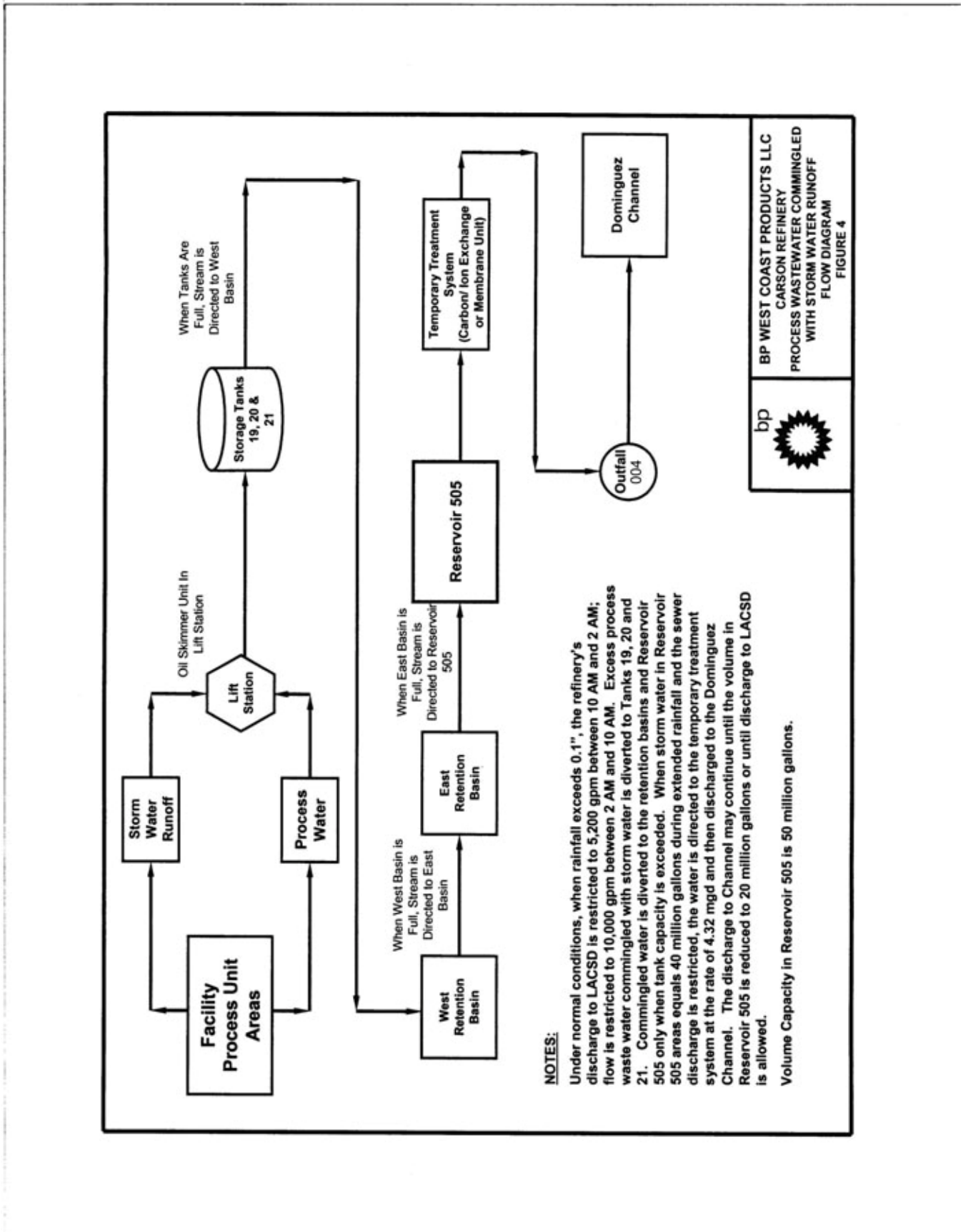
FIGURE 1
TOPOGRAPHIC VICINITY MAP
BP CARSON REFINERY



Attachment C1 – Flow Schematic – Low volume wastes



Attachment C2 – Flow Schematic – process wastewater and storm water



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 Clean Water Act (CWA) and the California Water Code (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 Clean Water Act 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 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 Monitoring and Reporting Program 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 – ENFORCEMENA

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 Clean Water Act, 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 µg/L [*40 CFR §122.42(a)(2)(i)*];

b. 1 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 (MRP) NO. 5424

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Attachment E – Monitoring and Reporting Program (MRP)

40 CFR §122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the 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 each point of discharge (Discharge Points 001, 002, 003, 004, and 005) and shall be located where representative samples of that effluent can be obtained.

B. Effluent samples shall be taken downstream of the 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 Monitoring and Reporting Program”.

G. The monitoring reports shall specify the analytical method used, the MDL, and the 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 the limitations contained in this Order shall be the same as or lower than the limitation(s) established for the given parameter in the Order.

Current MLs (Attachment H) are those published by the State Water Board in the Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, March 2, 2000.

H. Where possible, the MLs employed for effluent analyses shall be lower than the limitations in the Order 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 Attachment H to be included in the Discharger's Order in any of the following situations:

1. When the pollutant under consideration is not included in Attachment H;

2. When the Discharger and Regional Water Board agree to include in the Order 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 Attachment H;

4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment A, 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 limitation and that limitation 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 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 limitations 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 limitation, the Discharger shall collect four additional samples at approximately equal intervals during the month, until compliance with the average monthly limitation 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 limitation.

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:

Discharge Point Name	Monitoring Location Name	Monitoring Location Description (include Latitude and Longitude when available)
001	M-001	The effluent sampling station shall be located at Discharge Point 001 at latitude 33º 49' 17" N and longitude 118º 14' 27" W.
002	M-002	The effluent sampling station shall be located at Discharge Point 002 at latitude 33º 49' 10" N and longitude 118º 14' 25" W.
003	M-003	The effluent sampling station shall be located at Discharge Point 003 at latitude 33º 49' 03" N and longitude 118º 14' 24" W.
004	M-004	The effluent sampling station shall be located at Discharge Point 004 at latitude 33º 49' 02" N and longitude 118º 14' 24" W.
005	M-005	The effluent sampling station shall be located at Discharge Point 005 at latitude 33º 48' 57" N and longitude 118º 14' 03" W.
---	R-001A	The receiving water sampling station shall be located midstream in Dominguez Channel at a point within 50 feet from the center of the discharge point line in the opposite direction of tidal flow at the time of sampling. If sampled at slack tide, this station shall be located opposite of where the channel waters have been influenced by the discharge.
---	R-002A	
---	R-003A	
---	R-004A	
---	R-005A	
---	R-001B	The receiving water sampling station shall be located midstream in Dominguez Channel at a point where the discharge and receiving waters have thoroughly mixed, but not to exceed 50 feet from the center of the discharge point line in the direction of tidal flow at the time of sampling. If sampled at slack tide, this station shall be located in the direction where the channel waters have been influenced by the discharge.
---	R-002B	
---	R-003B	
---	R-004B	
---	R-005B	
---	S-001	The sediment sampling station shall be located at Anaheim Road
---	S-002	The sediment sampling station shall be located at Pacific Coast Highway
---	S-003	The sediment sampling station shall be located at Sepulveda Boulevard
---	S-004	The sediment sampling station shall be located at Alameda Street
---	S-005	The sediment sampling station shall be located at Wilmington Avenue
	S-006	The sediment sampling station shall be located at Avalon Boulevard
---	S-007	The sediment sampling station shall be located at Main Street

III. Influent Monitoring Requirements – Not Applicable

IV. Effluent Monitoring Requirements

A. Monitoring Location M-001, M-002, M-003, M-004 and M-005

1. The Discharger shall monitor low volume waste at M-001, M-002, M-003, M-004 and M-005 as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Conventional Pollutants				
Biochemical Oxygen Demand 5-day @ 20°C (BOD)	mg/L	Grab	1/discharge[1]	[2]
Oil and Grease	mg/L	Grab	1/discharge[1]	[2]
pH	standard units	Grab	1/discharge[1]	[2]
Total Suspended Solids (TSS)	mg/L	Grab	1/discharge[1]	[2]
Priority Pollutants				
Copper, Total Recoverable	µg/L	Grab	1/discharge[1]	[2]
Mercury, Total Recoverable	µg/L	Grab	1/discharge[1]	[2]
Nickel, Total Recoverable	µg/L	Grab	1/discharge[1]	[2]
Silver, Total Recoverable	µg/L	Grab	1/discharge[1]	[2]
Zinc, Total Recoverable	µg/L	Grab	1/discharge[1]	[2]
Methylene Chloride	µg/L	Grab	1/discharge[1]	[2]
Pentachlorophenol	µg/L	Grab	1/discharge[1]	[2]
Benzo(a)Anthracene	µg/L	Grab	1/discharge[1]	[2]
Chrysene	µg/L	Grab	1/discharge[1]	[2]
Fluoranthene	µg/L	Grab	1/discharge[1]	[2]
Aldrin	µg/L	Grab	1/discharge[1]	[2]
4,4'-DDE	µg/L	Grab	1/discharge[1]	[2]
Heptachlor epoxide	µg/L	Grab	1/discharge[1]	[2]
Remaining Priority Pollutants [3]	µg/L	Grab	1/year [4]	[2]
Other Pollutants/Parameters				
Acute Toxicity [5]	% survival	Grab	1/discharge[1]	[2]
Chlorine residual	mg/L		1/discharge[1]	[2]
Detergents (as MBAS)	µg/L	Grab	1/discharge[1]	[2]
Flow, Total	gallons/day	Grab	1/discharge[1]	[2]
Halomethanes	µg/L	Grab	1/discharge[1]	[2]
Hardness (as CaCO3)	mg/L	Grab	1/discharge[1]	[2]
PAHs	µg/L	Grab	1/discharge[1]	[2]
Settleable Solids	ml/L	Grab	1/discharge[1]	[2]
Sulfides	µg/L	Grab	1/discharge[1]	[2]
Temperature	°F	Grab	1/discharge[1]	[2]
Total Organic Carbon	mg/L	Grab	1/discharge[1]	[2]
Tributyltin	µg/L	Grab	1/discharge[1]	[2]
Turbidity	µg/L	Grab	1/discharge[1]	[2]
Xylene	µg/L	Grab	1/discharge[1]	[2]

[1] During periods of discharge, samples shall be collected during the first hour of the discharge. Each separate period of discharge shall be sampled, but no more than one sample per week is required. Flow shall be recorded daily during each period of discharge. For acute and chronic toxicity, no more than one sample per quarter is required

[2] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Attachment 4 of the SIP and included as Attachment H. If no methods are specified for a given pollutant, use methods approved by this

Regional Water Board or the State Water Board.

[3] Priority Pollutants as defined by the CTR defined in Finding II.I of this Order and included as Attachment I.

[4] Samples shall be collected during the first hour of the discharge during the first discharge event of the calendar year.

[5] See Section V.

B. Monitoring Locations M-004

1. The Discharger shall monitor the discharge of process wastewater commingled with storm water and boiler blowdown at M-004 as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Conventional Pollutants				
Biochemical Oxygen Demand 5-day @ 20℃ (BOD)	Mg/L	Grab	1/discharge[1]	[2]
Oil and Grease	Mg/L	Grab	1/discharge[1]	[2]
pH	standard units	Grab	1/discharge[1]	[2]
Total Suspended Solids (TSS)	Mg/L	Grab	1/discharge[1]	[2]
Priority Pollutants				
Chromium (VI)	µg/L	Grab	1/discharge[1]	[2]
Copper, Total Recoverable	µg/L	Grab	1/discharge[1]	[2]
Mercury, Total Recoverable	µg/L	Grab	1/discharge[1]	[2]
Silver, Total Recoverable	µg/L	Grab	1/discharge[1]	[2]
Zinc, Total Recoverable	µg/L	Grab	1/discharge[1]	[2]
Cyanide	µg/L	Grab	1/discharge[1]	[2]
Benzene	µg/L	Grab	1/discharge[1]	[2]
Carbon Tetrachloride	µg/L	Grab	1/discharge[1]	[2]
1,1-Dichloroethane	µg/L	Grab	1/discharge[1]	[2]
1,2-Dichloroethane	µg/L	Grab	1/discharge[1]	[2]
1,1-Dichloroethylene	µg/L	Grab	1/discharge[1]	[2]
Methylene Chloride	µg/L	Grab	1/discharge[1]	[2]
Tetrachloroethylene	µg/L	Grab	1/discharge[1]	[2]
Trichloroethylene	µg/L	Grab	1/discharge[1]	[2]
Vinyl Chloride	µg/L	Grab	1/discharge[1]	[2]
Pentachlorophenol	µg/L	Grab	1/discharge[1]	[2]
2,4,6-Trichlorophenol	µg/L	Grab	1/discharge[1]	[2]
1,2-Dichlorobenzene	µg/L	Grab	1/discharge[1]	[2]
1,3-Dichlorobenzene	µg/L	Grab	1/discharge[1]	[2]
1,4-Dichlorobenzene	µg/L	Grab	1/discharge[1]	[2]
Fluoranthene	µg/L	Grab	1/discharge[1]	[2]
Hexachlorobenzene	µg/L	Grab	1/discharge[1]	[2]
alpha-BHC	µg/L	Grab	1/discharge[1]	[2]
beta-BHC	µg/L	Grab	1/discharge[1]	[2]
gamma-BHC	µg/L	Grab	1/discharge[1]	[2]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Remaining Priority Pollutants [3]	µg/L	Grab	1/year [4]	[2]
Other Pollutants/Parameters				
Acute Toxicity [5]	% survival	Grab	1/discharge[1]	[2]
Ammonia (as N)	µg/L	Grab	1/discharge[1]	[2]
Chemical Oxygen Demand (COD)	µg/L	Grab	1/discharge[1]	[2]
Chlorine, Total Residual	Mg/L		1/discharge[1]	[2]
Chromium, Total	µg/L	Grab	1/discharge[1]	[2]
Conductivity, 25 C	µmhos/cm	Grab	1/discharge[1]	[2]
Detergents (MBAS)	µg/L	Grab	1/discharge[1]	[2]
Sulfides	µg/L	Grab	1/discharge[1]	[2]
Flow, Total	Gallons/day	Grab	1/discharge[1]	[2]
Halomethanes	µg/L	Grab	1/discharge[1]	[2]
Hardness (as CaCO3)	mg/L	Grab	1/discharge[1]	[2]
Methyl tertiary-butyl ether	µg/L	Grab	1/discharge[1]	[2]
PAHs	µg/L	Grab	1/discharge[1]	[2]
Phenolic Compounds	µg/L	Grab	1/discharge[1]	[2]
Settleable Solids	ml/L	Grab	1/discharge[1]	[2]
Temperature	°F	Grab	1/discharge[1]	[2]
Total Organic Carbon	mg/L	Grab	1/discharge[1]	[2]
Tributyltin	µg/L	Grab	1/discharge[1]	[2]
Xylene	µg/L	Grab	1/discharge[1]	[2]

[1] During periods of discharge, samples shall be collected during the first hour of the discharge. Each separate period of discharge shall be sampled, but no more than one sample per week is required. Flow shall be recorded daily during each period of discharge. For acute toxicity, no more than one sample per quarter is required.

[2] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Attachment 4 of the SIP and included as Attachment H. If no methods are specified for a given pollutant, use methods approved by this Regional Water Board or the State Water Board.

[3] Priority Pollutants as defined by the CTR defined in Finding II.I of this Order and included as Attachment I.

[4] Samples shall be collected during the first hour of the discharge during the first discharge event of the calendar year.

[5] See Section V.

V. Whole Effluent Toxicity Testing Requirements

A. Definition of Toxicity

1. Acute Toxicity**.**

Acute toxicity is a measure of primarily lethal effects that occur over a 96-hour period. Acute toxicity shall be measured in percent survival measured in undiluted (100%) effluent.

a. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90% survival, and

b. No single test shall produce less than 70% survival.

B. Acute Toxicity Effluent Monitoring Program

1. The Discharger shall conduct acute toxicity tests on effluent grab samples by methods specified in 40 CFR Part 136 which cites USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, USEPA, Office of Water, Washington D.C. (EPA/821-R-02-012) or a more recent edition to ensure compliance in 100 % effluent.

2. The fathead minnow, *Pimephales promelas*, shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish effluent. The method for topsmelt is found in USEPA's *Short-term Method for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, First Edition, August 1995 (EPA/600/R-95/136).

3. In lieu of conducting the standard acute toxicity testing with the fathead minnow, the Discharger may elect to report the results or endpoint from the first 48 hours of the chronic toxicity test as the results of the acute toxicity test.

4. Effluent samples shall be collected before discharge to the receiving water.

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. As required under Special Provision VI.C.2.a of the Order, the Discharger shall develop and submit for approval an Initial Investigation TRE Workplan within 90 days of the effective date of the Order.

2. If the results of a toxicity test exceed the acute toxicity effluent limitations (as defined below):

   Acute Toxicity:

   a. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and

   b. No single test shall produce less than 70% survival.

   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, whenever there is a discharge. 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 acute 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 (e.g., a temporary plant upset, etc.), then the Discharger may discontinue the Initial Investigation TRE 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 the discharge points causes or contributes to the measured downstream chronic toxicity. If this first step TRE Workplan shows that the effluent from the discharge points 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 Freshwater Organisms,* Fourth Edition, October 2002 (EPA/821/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) then a report on this testing shall be submitted to the Board and the Initial Investigation TRE will be considered to be completed. Routine testing in accordance with the MRP shall be continued thereafter.

E. Toxicity Reduction Evaluation (TRE)/ Toxicity Identification Evaluation (TIE) Trigger

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

   Acute Toxicity:

   a. If the results of any two of the six accelerated tests are less than 90% survival, or

   b. If the initial test and any of the additional six acute toxicity bioassay tests result in less than 70% survival.

then, the Discharger shall immediately implement the 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. 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 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 Order, 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 Order. Test results shall be reported as % survival for acute toxicity test results with the self monitoring reports (SMR) for the month 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 discharge monitoring reports (DMR) 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 DMR 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 limitation or chronic toxicity limitation or trigger and (4) printout of the ToxCalc or CETIS program results.

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 DMR. 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. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable);
   h. NOEC and lowest observed effect concentration (LOEC) values for reference toxicant test(s);

i. IC_{25} value for reference toxicant test(s);
j. Any applicable charts; and
k. Available water quality measurements for each test (e.g., pH, dissolved oxygen, 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 limitation 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 this Order, 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

VII. Reclamation Monitoring Requirements – Not Applicable

VIII. Receiving Water Monitoring Requirements – Surface Water and Sediment

A. Monitoring Locations R-001A, R-002A, R-003A, R-004A and R-005A

1. The Discharger shall monitor Dominguez Channel at Monitoring Locations R-001A, R-002A, R-003A, R-004A and R-005A as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Conventional Pollutants				
pH	standard units	Subsurface grab	1/discharge[1,2]	[3]
Priority Pollutants				
Priority pollutants [4]	µg/L	Subsurface grab	1/year[5]	[3]
Other Pollutants/Parameters				
Hardness ($CaCO_3$)	mg/L	Subsurface grab	1/discharge[1,2]	[3]
Salinity	g/Kg	Subsurface grab	1/discharge[1,2]	[3]
Temperature	^oF	Subsurface grab	1/discharge[1]	[3]

[1] Each separate period of discharge shall be sampled, but no more than one sample per quarter is required.

[2] Receiving water pH, hardness and salinity must be analyzed at the same time the samples are collected for priority pollutants analysis.

[3] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Appendix 4 of the SIP and included as Attachment H. If no methods are specified for a given pollutant, use methods approved by this Regional Water Board or the State Water Board.

[4] Priority Pollutants as defined by the CTR defined in Finding II.I of this Order and included as Attachment I.

[5] Shall be monitored concurrently with effluent Priority Pollutant monitoring specified in Section IV.A.1 of this MRP, Attachment E.

B. Monitoring Locations R-001B, R-002B, R-003B, R-004B, and R-005B

1. The Discharger shall monitor Dominguez Channel at Monitoring Locations R-001B, R-002B, R-003B, R-004B, R-005B and R-006B as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Conventional Pollutants				
pH	standard units	Subsurface grab	1/discharge[1,2]	[3]
Other Pollutants/Parameters				
Ammonia, total	Mg/L	Subsurface grab	1/discharge[1,2]	[3]
Dissolved oxygen	Mg/L	Subsurface grab	1/discharge[1]	[3]
Nitrate (as N)	Mg/L	Subsurface grab	1/discharge[1]	[3]
Salinity	g/Kg	Subsurface grab	1/discharge[1,2]	[3]
Temperature	^{o}F	Subsurface grab	1/discharge[1,2]	[3]

[1] Each separate period of discharge shall be sampled, but no more than one sample per quarter is required.

[2] Receiving water samples for ammonia, salinity, pH and temperature shall be taken concurrently with the effluent sample for ammonia.

[3] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Appendix 4 of the SIP and included as Attachment H. If no methods are specified for a given pollutant, use methods approved by this Regional Water Board or the State Water Board.

C. Visual Monitoring of Upstream and Downstream Receiving Water Sampling Points

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

2. General observations of the receiving water shall be made at each discharge point when discharges occur. 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.

D. Monitoring Locations S-001, S-002, S-003, S-004, S-005, S-006 and S-007

1. The Discharger shall perform sediment sampling at Monitoring Locations S-001, S-002, S-003, S-004, S-005, S-006, and S-007 as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Priority Pollutants				
Cadmium, Total Recoverable	mg/Kg	Surface Grab[1]	1/year	[2]
Chromium, Total	mg/Kg	Surface Grab[1]	1/year	[2]
Copper, Total Recoverable	mg/Kg	Surface Grab[1]	1/year	[2]
Lead, Total Recoverable	mg/Kg	Surface Grab[1]	1/year	[2]
Nickel, Total Recoverable	mg/Kg	Surface Grab[1]	1/year	[2]
Zinc, Total Recoverable	mg/Kg	Surface Grab[1]	1/year	[2]
PCBs[3]	mg/Kg	Surface Grab[1]	1/year	[2]
Other Pollutants/Parameters				
Sediment grain size	---	Surface Grab[1]	1/year	[2]
Chronic toxicity [4]	TUc	Surface Grab[1]	2/year	[2]
DDT[5]	mg/Kg	Surface Grab[1]	1/year	[2]
Total Organic Carbon	mg/Kg	Surface Grab[1]	1/year	[2]
Total Petroleum Hydrocarbons	mg/Kg	Surface Grab[1]	1/year	[2]
Tributyltin	mg/Kg	Surface Grab[1]	1/year	[2]
PAHs[6]	mg/Kg	Surface Grab[1]	1/year	[2]
Note odor, color, and visible aquatic life in sediment	---	Surface Grab[1]	1/year	[2]

[1] Grab samples containing the upper two centimeters of sediment shall be taken from an Ekman grab sampler (or another method approved by the Executive Officer).

[2] Pollutants shall be analyzed using the analytical methods described in "Test Methods for Evaluating Solid Waste Physical/Chemical Methods" or SW-846. If no methods are specified for a given pollutant, use methods approved by this Regional Water Board or the State Water Board.

[3] Sum of Arochlor 1016, Arochlor, 1221, Arochlor 1232, Arochlor 1242, Archlor 1248, Arochlor 1254, and Arochlor 1260

[4] See Section V.

[5] Sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.

[6] Sum of acenaphthene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo(k)fluoranthene, 1,12-benzoperylene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, and pyrene.

E. Biomonitoring

As required under Special Provision VI.C.2 of this Order, the Discharger shall submit an updated work plan for biomonitoring to the Executive Officer of the Regional Board for approval within 90 days of the effective date of this Order. The work plan shall detail a proposed biomonitoring assessment including, but not limited to, details for: using caged bivalves, specifying species to be used, other parameters of tests (including an acceptable size or age range of organisms), bivalve or sampling locations (including upstream and downstream of discharge), time periods when outplanting will occur, durations of the outplants and analytical parameters.

F. Coordinated Monitoring

1. The Discharger may participate in a coordinated receiving water, biomonitoring, and sediment monitoring program with other dischargers to the Dominguez Channel in order to provide the Regional Water Board with a comprehensive water and sediment quality database for this water body. The Discharge shall get approval of the Executive Officer of the Regional Water Board of such a coordinated water quality and sediment quality monitoring program.

IX. Other Monitoring Requirements

A. Storm Water Monitoring

1. **Rainfall Monitoring**. The Discharger shall measure and record the rainfall on each day of the month. This information shall be included in the monitoring report for that quarter.

2. **Visual Observation.** The Discharger shall make visual observations of the storm water discharge location at Discharge Point 004 during at least one storm event per month that produces a significant discharge of storm water commingled with process wastewater. Observations shall note the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor at the storm water discharge locations. A “significant storm water discharge” is a continuous discharge of storm water commingled with process wastewater for a minimum of one hour, or the intermittent discharge of storm water commingled with process wastewater for a minimum of 3 hours in a 12-hour period.

B. SWPPP, BMPP and Spill Contingency Plan Status and Effectiveness Report

1. As required under Special Provision VI.C.3 of this Order, the Discharger shall submit the following plans to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this Order:

Updated SWPPP. The plan shall describe site-specific management practices for minimizing contamination of storm water runoff, and for preventing contaminated storm water runoff from being discharged to waters of the State. The SWPPP shall be developed in accordance with the requirements in Attachment G.

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

The plans shall cover all areas of the facility and shall include an updated drainage map for the facility. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge points (e.g., chemical storage areas); describe the activities in each area and the potential for contamination of storm water runoff and the discharge of hazardous waste/material; and address the feasibility of containment and/or treatment of the storm water.

Updated Spill Contingency Plan. This plan shall be site specific and shall cover all areas of the Facility. The plan shall include a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. 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.

The 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.

2. The Discharger shall implement SWPPP, BMPP and Spill Contingency Plan within 10 days of the approval by the Executive Officer.

3. Annually, the Discharger shall report the status of the implementation and the effectiveness of the SWPPP, BMPP and Spill Contingency Plan Status required under Special Provision VI.C.3 of this Order. The SWPPP, BMPP and Spill Contingency Plan Status shall be reviewed at a minimum once per year and updated as needed to ensure all actual or potential sources of pollutants in wastewater discharged from the Facility are addressed in the SWPPP, BMPP and Spill Contingency Plan Status. All changes or revisions to the SWPPP, BMPP and Spill Contingency Plan Status will be

summarized in the annual report required under Section X.D of the MRP (Attachment E).

C. Compliance Plan.

1. Within 1 year after the effective date of the Order, the Discharger shall develop and implement a compliance plan that will identify the measures that will be taken to reduce the concentrations of zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE, and heptachlor epoxide in the discharge of low volume wastes through Discharge Point 001, 002, 003, 004 and 005. This plan must evaluate options to achieve compliance with the limitations specified in Section IV.A.1.a of the Order.

2. The Discharger shall submit annual reports to describe the progress of studies and or actions undertaken to reduce zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE, and heptachlor epoxide low volume waste effluent, and to achieve compliance with the limitations in this Order by the deadline specified in Section IV.A.3 of the Order. The Regional Water Board shall receive the first annual progress report at the same time the annual summary report is due, as required in Section X.D of MRP (Attachment E).

3. The interim limitations stipulated in Section IV.A.3 shall be in effect for a period not to extend beyond June 30, 2009. Thereafter, the Discharger shall comply with the limitations specified in Section IV.A.1.a of the Order.

D. Pollutant Minimization Plan (PMP).

The Discharger shall develop and submit a PMP to maintain effluent concentrations of zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE, and heptachlor epoxide at or below the effluent limitations for the discharge of low volume waste specified in Final Effluent Limitations Section IV.A.1.a of this Order. The PMP shall include the following:

1. Annual review and quarterly monitoring of the potential sources of zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE, and heptachlor epoxide;

2. Submittal of a control strategy designed to proceed toward the goal of maintaining effluent concentrations at or below the effluent limitations;

3. Implementation of appropriate cost-effective control measures consistent with the control strategy;

4. An annual status report that shall be sent to the Regional Water Board at the same time the annual summary report is submitted in accordance with Reporting Requirements Section X.C of the MRP, Attachment E, and include:

a. All PMP monitoring results for the previous year;

b. A list of potential sources of zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE and heptachlor epoxide;

c. A summary of all actions undertaken pursuant to the control strategy; and

d. A description of actions to be taken in the following year.

E. Chemical Use Report

1. The Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this Order, a list of all chemicals and proprietary additives which could affect the waste discharge, including quantities of each.

2. The Discharger shall report annually 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.

3. The discharger shall monitor the chemicals used in the facility. Prior to any change in the use of chemical at the facility the discharger must inform the Regional Water Board. No changes in the type or amount of chemicals added to the process water shall be made without the written approval of the Regional Water Board's Executive Officer. The discharger must submit a complete report of the change to the Regional Water Board before the proposed date of change.

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 acute and chronic toxicity testing, TRE and TIE as required in Section V.F of the MRP (Attachment E).

B. Self Monitoring Reports (SMRs)

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

2. The Discharger shall submit quarterly and annual Self Monitoring Reports 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; semi-annual reports

shall be due on August 1 and February 1 following each semi-annual period; and annual reports shall be due on February 1 following each calendar year.

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

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
quarterly	April 1, 2007	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
yearly	April 1, 2006	January 1 through December 31	February 1
once per discharge event	First day of discharge after the effective date of this Order	Once per discharge	August 1 November 1 February 1 May 1

4. The Discharger shall report with each sample result the applicable ML and the current 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.

6. 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.

7. 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

   Attention: Information Technology Unit

C. Discharge Monitoring Reports (DMRs)

1. As described in Section X.B.1 above, at any time during the term of this Order, the State or Regional Water Board may notify the discharger to electronically submit self-monitoring reports. 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 Order, the Discharger is required to submit the following to the Regional Water Board:

   a. Initial Investigation TRE workplan (Section V.E of this MRP, Attachment E)
   b. Updated biomonitoring work plan (Section VIII.E of this MRP, Attachment E)
   c. Updated SWPPP, Updated BMPP and Spill Contingency Plan (Section IX.B of this MRP, Attachment E)

2. Within 1 year after the effective date of the Order, the Discharger shall develop and implement a compliance plan that will identify the measures that will be taken to reduce the concentrations of zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE, and heptachlor epoxide in the discharge of low volume wastes through Discharge Point 001, 002, 003, 004 and 005 (Section IX.C of this MRP, Attachment E).

3. The Discharger shall develop and submit a PMP to maintain effluent concentrations of zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE, and heptachlor epoxide at or below the effluent limitations for the discharge of low volume waste specified in Final Effluent Limitations Section IV.A.1.a of this Order.

4. The Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this Order, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly (Section VIII.E of the MRP, Attachment E)

5. By March 1 of each year, the Discharger shall submit an annual report to the 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 on the status of the implementation and the effectiveness of the SWPPP, BMPP, Spill Contingency Plan, Compliance Plan and PMP (Section IX of the MRP, Attachment E)

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 (Section IX.E of the MRP, Attachment E,)

6. If the Discharger wishes to participate in a coordinated receiving water, biomonitoring, and sediment monitoring program with other dischargers to the Dominguez Channel, then, as discussed in Section VIII.F of the MRP, Attachment E, the Discharger shall submit a report seeking approval of the Regional Water Board.

Attachment F – Fact Sheet – Table of Contents

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	4B192010008
Discharger	BP West Coast Products LLC
Name of Facility	BP Carson Refinery
Facility Address	1801 East Sepulveda Boulevard
	Carson, CA 90749
	Los Angeles County
Facility Contact, Title and Phone	Stefan Gogosha, Water Compliance Engineer, (310) 816 8135
Authorized Person to Sign and Submit Reports	Sheryl Wood**,** Environmental Manager, (310) 816-8527
Mailing Address	P.O. Box 6210, Carson, CA 90749
Billing Address	SAME
Type of Facility	Industrial (IND)
Major or Minor Facility	Major
Threat to Water Quality	2
Complexity	A
Pretreatment Program	N/A
Reclamation Requirements	N/A
Facility Permitted Flow	4.4 MGD
Facility Design Flow	N/A
Watershed	Dominguez Channel Watershed
Receiving Water	Dominguez Channel
Receiving Water Type	Channel

A. British Petroleum (BP) West Coast Products LLC (hereinafter Discharger) is the owner and operator of BP Carson Refinery (hereinafter Facility) a petroleum refining facility.

B. The Facility discharges wastewater to Dominguez Channel, a water of the United States and is currently regulated by Order No. 01-078 which was adopted on May 24, 2001 and expires on April 10, 2006.

C. The Discharger filed a report of waste discharge and submitted an application for renewal of its WDRs and NPDES permit on October 4, 2005. A site visit was conducted on November

8, 2005, to observe operations and collect additional data to develop permit limitations and conditions.

II. Facility Description

A. Description of Facility and Wastewater Treatment

The Facility was formerly owned and operated by Atlantic Richfield Company (ARCO) prior to the merger between BP Amoco and ARCO. The Facility is a petroleum refinery (SIC 2911), and has a daily average crude throughput of 300,000 barrels per day. Crude oil is cracked and processed at the refinery to produce gasoline, diesel fuel, and jet fuel. Sulfur, coke, liquefied petroleum gas (LPG), and polypropylene are produced as by-products.

Petroleum refining is the physical, thermal, and chemical separation of crude oil into its major distillation fractions that are then further processed through a series of separation and conversion steps into finished petroleum products. These processes can be separated into two phases. The first phase includes desalting of crude oil and the subsequent distillation into various components/fractions. The second phase includes downstream processes to convert the distillation fractions into petroleum products through any combination of different cracking, coking, reforming, and alkylation processes.

Desalting – Before separation into fractions, crude oil must first be treated to remove corrosive salts. Desalting involves the mixing of heated crude oil with water so that the salts are dissolved in the water. The water must then be separated from the crude oil in a separating vessel by adding demulsifier chemicals to assist in breaking the emulsion.

Distillation – The desalted crude oil is then heated in a heat exchanger and furnace to about 750^{o}F and fed to a distillation column at atmospheric pressure where most of the feed is vaporized and separated into its various fractions (atmospheric distillation). The light fractions condense and are collected at the top of the column. The heavier fractions are collected at the bottom of the column and are further separated by distillation at a very low pressure to increase volatilization and separation (vacuum distillation).

Cracking – Thermal cracking, or visbreaking, uses heat and pressure to break large hydrocarbon molecules into smaller, lighter molecules. This process has been largely replaced by catalytic cracking that uses catalyst in addition to heat and pressure to break large hydrocarbon molecules into smaller, lighter molecules. Catalytic cracking is able to produce gasoline with higher octane.

Catalytic Hydrocracking – Catalytic hydrocracking utilizes a fixed-bed catalytic reactor under substantially high pressure (1,200 to 2,000 psig) with the presence of hydrogen. This process is used to break crude oil fractions that are the most difficult to crack or cannot be cracked effectively in catalytic cracking units.

Coking – Coking is a cracking process used to reduce refinery production of low-value residual fuel oils to gasoline and diesel. Coking also produces petroleum coke, a solid carbon used as a fuel for power plants.

Hydrotreating – Hydrotreating is a process used to remove impurities such as sulfur, nitrogen, oxygen, halides, and trace metal impurities that may deactivate process catalysts.

Hydrotreating also increases the quality of fractions by converting olefins and diolefins to paraffins for the purposes of reducing gum formation in fuels.

Alkylation – Alkylation is used to produce a high octane gasoline from isobutane formed primarily during catalytic cracking and coking operations. Alkylation joins an olefin and an isoparaffin compound using either a sulfuric acid or hydrofluoric acid as a catalyst.

Catalytic Reforming – Catalytic reforming uses catalytic reactions to process low octane gasolines and naphthas into high octane aromatics (including benzene). There are four major types of reactions that occur during reforming processes: (1) dehydrogeneration of napthenes to aromatics; (2) dehydrocyclization of paraffins to aromatics; (3) isomerization; and (4) hydrocracking.

Chemical treating – Chemical treating is used to remove or change the undesirable properties associated with sulfur, nitrogen, or oxygen compound contaminates in petroleum products. This can be done by either extraction or oxydation.

Isomerization – Isomerization is used to alter the arrangement of a molecule without adding or removing anything from the original molecule. Typically, paraffins (butane or pentane) are converted to isoparaffins having a much higher octane. The reaction takes place at temperature in the range of 200 to 400 ^{o}F with the presence of platinum as a catalyst.

The refinery processes at the Facility include crude atmospheric distillation, vacuum distillation, chemical treating superfractionation, alkylation/MTBE, catalytic cracking, hydrocracking, hydrotreating, delayed coking, catalytic reforming, hydro-desulfurization, petrochemical production, NGL production, cogeneration/steam production, gasoline blending, and sulfur recovery. Primary process units include three crude units, a fluid catalytic cracker (FCC), three reformers, two delayed cokers, a hydrocracker, a hydrotreater, an alkylation plant, an isomerization plant, a sulfur tail gas recovery unit, two hydrogen plants and a cogeneration unit.

The Discharger had made significant changes in the management and treatment of wastewater at the Facility. The Discharger is no longer discharging any wastewater through Discharge Serial No. 002 (in the existing Order No. 01-078). The boiler blowdown and cooling tower blowdown are no longer discharged through Discharge Serial No. 002. Instead, boiler blowdown is routed to discharge through Discharge Point 004 (Discharge Serial No. 12 in the existing Order). The following describes the current wastewater management and treatment practiced at the Facility.

During normal operations, all the wastewater generated from the refinery process units and storm water runoff from process areas are treated at the centralized wastewater treatment system and discharged to the Los Angeles County Sanitation Districts' sewer system. The refinery's centralized wastewater treatment system consists of an American Petroleum Institute (API) separator, four lift stations, four tanks and three induced gas floation (IGF) units.

The Facility generates five types of waste streams – Waste Stream 1, Waste Stream 2, Waste Stream 3, Waste Stream 4, and Waste Stream 5. A description of the waste streams is provided in the table below. The Order authorizes the discharge of only Waste Stream 1, Waste Stream 2, and Waste Stream 3 to the Dominguez Channel Estuary. Note that for uniformity and easy readability, the designation of the waste streams in the existing

Order has been modified in this Order. The table below also shows the new designation of the waste streams in the Order corresponding to those in the existing Order.

Table F-2
Description of Waste Streams

Waste Stream Designation in the Order	Waste Stream Designation in the Existing Order	Brief Description of Waste Stream
Waste Stream 1	No designation	Low volume waste
Waste Stream 2	Waste Stream 1	Process wastewater and storm water
Waste Stream 3	Waste Stream 3	Boiler blowdown
Waste Stream 4	Waste Stream 2	Cooling tower blowdown
Waste Stream 5	Waste Stream 4	Treated ground water

Waste Stream 1 consists of low volume wastes of steam condensate, atmospheric condensate, noncontaminated service water, air conditioning condensate and fire system water. During normal operations, low volume wastes are treated at the centralized wastewater treatment system and discharged to the Los Angeles County Sanitation Districts' sewer system. In the event of emergency or pump failure, low volume wastes are discharged into Dominguez Channel through Discharge Points. 001, 002, 003, 004 and 005. The discharges are intermittent with flow rates rarely exceeding 0.045 million gallons per day (MGD).

Waste Stream 2 consists of process wastewater from the refinery and storm water runoff from process areas while Waste Stream 3 consists of boiler blowdown from boiler feed water in the refinery and cogeneration facility. The wastewater and storm water are normally treated at the centralized wastewater treatment system and discharged to the Los Angeles County Sanitation District's sewer system. However, when rainfall exceeds 0.1 inch, the refinery is required to divert some of the flow to the three storage tanks (Tanks 19, 20 and 21) shown in Attachment C. When the tank capacity is exceeded, the commingled wastewater and storm water is diverted to the two retention basins (East Retention Basin and West Retention Basin) and a 50-million gallon reservoir (Reservoir 505) that hold the water for 24 or more hours. After cessation of the storm, the stored wastewater and storm water is sent to the sewer during off-peak hours. However, during extended storms when the storage capacity of Reservoir 505 is filled to 40 million gallons and discharge to the sewer is restricted, the wastewater and storm water in the reservoir is treated with a mobile carbon absorption filter/ion exchange or membrane unit and discharged to Dominguez Channel through Discharge Point 004 at the rate of up to 4.32 MGD. The discharge consists of about 70% storm water and about 30% wastewater with boiler blowdown contributing less than 5% of the total discharge. The discharge continues until the reservoir water is reduced to 20 million gallons or until discharge to the sewer is allowed. This volume allows sufficient impound capacity to accommodate runoff from rainfall in the event there should be successive days of heavy rainfall in excess of 0.1 inch.

Waste Stream 4 consists of cooling tower blowdown from cooling towers in the refinery, cogeneration facility, and LPG and polypropylene manufacturing facility. Waste Stream 4 was discharged to the Dominguez Channel under existing Order No. 01-078. In the permit application, the Discharger did not request the authority to discharge Waste Stream 4 to the

Dominguez Channel. As a result, the Order does not authorize the discharge of Waste Stream 4 to the Dominguez Channel.

Waste Stream 5 consists of treated ground water generated from the groundwater cleanup operation under Board Cleanup and Abatement Order # 90-121. Ground water is treated with carbon adsorption, steam stripping, air stripping, or fluidized granular activated carbon technology prior to discharge to the industrial sewer. Waste Stream 5 currently discharges into the industrial sewer. This Order, like the existing Order No. 01-078, does not authorize the discharge of Waste Stream 5 to the Dominguez Channel.

B. Discharge Points and Receiving Waters

For uniformity and consistency with other Orders issued by the Regional Water Board, the designation of the discharge points in the existing Order has been modified in this Order. Table F-2 below shows the location and the new designation of the discharge points in this Order corresponding to those in the existing Order.

Waste streams discharged through each of the discharge points are also shown in Table F-3 below. Waste Stream 1 consisting of low volume wastes is discharged intermittently through Discharge Points 001, 002, 003, 004 and 005 to Dominguez Channel. Waste Stream 2 consisting of process wastewater commingled with storm water and Waste Stream 3 consisting of boiler blowdown is discharged intermittently through Discharge Point 004 to Dominguez Channel. (Under the existing Order No. 01-078, Waste Stream 3 used to discharge to the Dominguez Channel through Discharge Serial No. 002.) The Facility did not discharge combined Waste Stream 2 and Waste Stream 3 through Discharge Point 004 during the entire term of the existing Order.

Table F-3
Discharge Point Designation and Location

Discharge Point Designation in this Order	Discharge Point Designation in the Existing Order No. 01-078	Location	Waste Stream Discharged
No designation	Discharge Serial No. 002	33°48'35" North, 118°14'20" West	None
Discharge Point 001	Discharge Serial No. 5	33°49'02" North, 118°14'24" West	Waste Stream 1
Discharge Point 002	Discharge Serial No. 10	33°49'10" North, 118°14'25" West	Waste Stream 1
Discharge Point 003	Discharge Serial No. 11	33°49'03" North, 118°14'24" West	Waste Stream 1
Discharge Point 004	Discharge Serial No. 12	33°49'02" North, 118°14'24" West	Waste Stream 1, Waste Stream 2 and Waste Stream 3
Discharge Point 005	Discharge Serial No. 23	33°48'57" North, 118°14'03" West	Waste Stream 1

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

The Discharger submitted monitoring reports for the effluent flow and organic and inorganic pollutants for the entire term of the existing Order. The Discharger did not report pollutant mass loadings in the effluent. Effluent limitations/Discharge Specifications contained in the existing Order for discharges of low volume wastes from Discharge Points 001, 002, 003, 004 and 005 (Monitoring Locations M-001, M-002, M-003, M-004 and M-005) and representative monitoring data for the effluent from the term of the existing Order are presented in Table F-4.

Table F-4
Summary of Effluent Limitations in Order No. 01-078 and SMR Reporting
Low Volume Waste
Discharge Points 001, 002, 003, 004 and 005

Parameter[1]	Units	Effluent Limitations		Monitoring Data (July 2001 to Jan 2005)
		Average Monthly	Maximum Daily	Highest Daily Discharge
Conventional Pollutants				
Biochemical Oxygen Demand 5-day @ 20°C (BOD) [2]	mg/L	20	30	5
Oil and Grease[2]	mg/L	10	15	470
pH	Std. units	---	6 to 9[3]	---
Total Suspended Solids (TSS) [2]	mg/L	50	75	57
Priority Pollutants				
Copper, Total Recoverable[2]	µg/L	2.39	4.8	38
Lead, Total Recoverable	µg/L	---	---	5.5
Mercury, Total Recoverable[2]	µg/L	0.05	0.1	0.065
Nickel, Total Recoverable[2]	µg/L	6.71	13.47	17
Silver, Total Recoverable[2]	µg/L	0.95	1.9	0.164
Zinc, Total Recoverable	µg/L	---	---	1020
2,3,7,8 TCDD	µg/L	---	---	0.0000025
Chlorodibromomethane	µg/L	---	---	1.0
Chloroform	µg/L	---	---	0.88
Dichlorobromomethane	µg/L	---	---	0.35
1,1-Dichloroethylene	µg/L	---	---	1.1
Dichloromethane[2] (methylene Chloride)	µg/L	1600	---	22
Toluene	µg/L	---	---	2.7
Trichloroethylene	µg/L	---	---	0.88
Pentachlorophenol[2]	µg/L	8.2	---	Not detected
Acenaphthene	µg/L	---	---	0.89
Anthracene	µg/L	---	---	0.31
Benzo(a)Anthracene	µg/L	---	---	0.39
Benzo(a)Pyrene	µg/L	---	---	0.012
Benzo(b)Fluoranthene	µg/L	---	---	0.014
Chrysene	µg/L	---	---	1.0

Parameter[1]	Units	Effluent Limitations		Monitoring Data (July 2001 to Jan 2005)
		Average Monthly	Maximum Daily	Highest Daily Discharge
Di-n-Butyl Phthalate	µg/L	---	---	9.1
Fluoranthene[2]	µg/L	42	---	0.090
Fluorene	µg/L	---	---	1.5
Indeno (1,2,3-cd) Pyrene	µg/L	---	---	0.0087
Naphthalene	µg/L	---	---	11
Phenanthrene	µg/L	---	---	3.8
Pyrene	µg/L	---	---	0.64
Aldrin	µg/L	---	---	0.0071
Delta-BHC	µg/L	---	---	0.035
4,4'-DDE	µg/L	---	---	0.031
Heptachlor Epoxide	µg/L	---	---	0.00090
Non-Conventional Pollutants				
1,2,4-Trimethylbenzene	µg/L	---	---	1.9
2,4,6-Tribromophenol	µg/L	---	---	150
2-Fluorobiphenyl	µg/L	---	---	77
2-Fluorophenol	µg/L	---	---	136
2-Methylanthracene	µg/L	---	---	0.92
2-Methylnaphthalene	µg/L	---	---	5.4
4-Bromofluorobenzene	µg/L	---	---	25
Carbazole	µg/L	---	---	0.924
Decachlorobiphenyl	µg/L	---	---	0.46
Detergent (MBAS) [2]	µg/L	---	0.5	0.44
Dibromofluoromethane	µg/L	---	---	27
Endrin ketone	µg/L	---	---	0.021
Isopropylbenzene	µg/L	---	---	Not detected
Nitrobenzene-d5	µg/L	---	---	71
Tetrachloro-m-xylene	µg/L	---	---	0.42
Phenol-d6	µg/L	---	---	133
Residual Chlorine[2]	µg/L	---	0.1	Not detected
Settleable Solids	ml/L	0.1	0.3	0.2
Sulfides[2]	µg/L	---	1.0	0.084
Temperature	°F	---	86	---
Terphenyl-d14	µg/L	---	---	94
Toluene-d8	µg/L	---	---	26
Turbidity	NTU	50	150	59
Xylene	µg/L	---	10	2
Fathead Minnow Acute[4]	%Surv	<70%	≥90%	5%

[1] Other pollutants analyzed were reported as not detected

[2] These pollutants also has mass-based effluent limitations in the existing Order. The mass-based effluent limitations were established using concentration-based effluent limitations shown in this table and a flow of 0.045 MGD.

[3] pH should be between 6 and 9

[4] The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay test shall be at least 90%, and no single test shall produce less than 70% survival.

The Facility did not discharge through Discharge Point 004 during the entire term of the existing Order and therefore, no data for the final effluent are available. However, in the Report of Waste Discharge, the Discharger submitted data for wastewater commingled with storm water and boiler blowdown (Waste Stream 2 and Waste Stream 3) collected from storage Reservoir 505. Because the wastewater in the reservoir is further treated in a mobile carbon absorption filters/ion exchange/membrane unit before being discharged to Dominguez Channel, the wastewater data from the reservoir do not represent the actual characteristics of the final effluent through Discharge Point 004. Nevertheless, the data from the reservoir do provide some insight into the characteristics of the wastewater that may be discharged through Discharge Point 004. Monitoring data from storage Reservoir 505 and Effluent Limitations/Discharge Specifications contained in the existing Order for discharges of process wastewater commingled with storm water from Discharge Points 004 (Monitoring Location M-004) are presented in Table F-5.

Table F-5
Summary of Effluent Limitations in Order No. 01-078 and SMR Reporting
Process Wastewater, Storm Water, and Boiler Blowdown
Discharge Point 004

Parameter[1]	Units	Effluent Limitations				Monitoring Data[2] (July 2001 to July 2005)
		Process Wastewater		Storm Water		
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Highest Daily Concentration
Conventional Pollutants						
Biochemical Oxygen Demand 5-day @ 20°C (BOD)	mg/L			26	48	130
	lbs/day	2,275	4,235	937	1,729	---
Oil and Grease	mg/L	---	---	8	15	26
	lbs/day	735	1,365	288.2	540.5	---
pH	Std. units	---	---	---	6 to 9[3]	---
Total Suspended Solids (TSS)	mg/L	---	---	21	33	---
	lbs/day	1,838	2,905	756.6	1189	---
Priority Pollutants						
Arsenic	µg/L	---	---	---	---	16
Chromium (VI)	µg/L	---	---	0.028	0.062	
	lbs/day	1.03	2.31	1.0	2.2	Not detected
Chromium, Total	µg/L	---	---	0.21	0.60	
	lbs/day	12.59	36.16	7.6	21.6	---
Copper, Total Recoverable[3]	µg/L	---	---	2.4	4.8	Not detected
Mercury, Total Recoverable[3]	µg/L	---	---	0.05	0.1	Not detected
Selenium, Total Recoverable	µg/L	---	---	---	---	36
Zinc, Total Recoverable[3]	µg/L	---	---	45	90	150
Benzene[3]	µg/L	---	---	1	21	66
Carbon Tetrachloride[3]	µg/L	---	---	---	0.5	Not detected

Parameter[1]	Units	Effluent Limitations				Monitoring Data[2] (July 2001 to July 2005)
		Process Wastewater		Storm Water		
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Highest Daily Concentration
Chlorodibromomethane	µg/L	---	---	---	---	0.89
Chloroform	µg/L	---	---	---	---	99
Dichlorobromomethane	µg/L	---	---	---	---	7.5
1,1-Dichloroethane[3]	µg/L	---	---	---	0.5	Not detected
1,2-Dichloroethane[3]	µg/L	---	---	---	0.5	Not detected
1,1-Dichloroethylene[3]	µg/L	---	---	---	6	Not detected
Ethylbenzene	µg/L	---	---	---	---	23
Dichloromethane[3] (Methylene Chloride)	µg/L	---	---	1,600	---	0.78
Tetrachloroethylene[3]	µg/L	---	---	---	5	1.9
Toluene	µg/L	---	---	---	---	130
1,1,1-Trichloroethane	µg/L	---	---	---	---	0.55
Trichloroethylene[3]	µg/L	---	---	---	5	1.4
Vinyl Chloride[3]	µg/L	---	---	---	0.5	Not detected
2-Chlorophenol	µg/L	---	---	---	---	8.8
Pentachlorophenol[3]	µg/L	---	---	8.2	---	Not detected
Phenol	µg/L	---	---	---	---	340
2,4,6-Trichlorophenol[3]	µg/L	---	---	1	---	56
Anthracene	µg/L	---	---	---	---	0.21
Benzo(a)Pyrene	µg/L	---	---	---	---	0.99
Benzo(k)Fluoranthene	µg/L	---	---	---	---	0.33
Dibenzo(a,h)Anthracene	µg/L	---	---	---	---	1.3
1,2-Dichlorobenzene[3]	µg/L	---	---	18,000	---	Not detected
1,3-Dichlorobenzene[3]	µg/L	---	---	2,600	---	Not detected
1,4-Dichlorobenzene[3]	µg/L	---	---	64	---	Not detected
Fluoranthene[3]	µg/L	---	---	42	---	68
Fluorene	µg/L	---	---	---	---	6.3
Hexachlorobenzene[3]	µg/L	---	---	0.00069	---	Not detected
Indeno (1,2,3-cd) Pyrene	µg/L	---	---	---	---	0.18
Naphthalene	µg/L	---	---	---	---	160
Phenanthrene	µg/L	---	---	---	---	18
Pyrene	µg/L	---	---	---	---	4
alpha-BHC[3] (alpha-Hexachlororocyclohexane)	µg/L	---	---	0.013	---	Not detected
beta-BHC[3] (beta-Hexachlororocyclohexane	µg/L	---	---	0.046	---	Not detected
gamma- BHC[3] (gamma Hexachlororocyclohexane	µg/L	---	---	0.062	---	Not detected
Non-Conventional Pollutants						
1,2-cis-Dichloroethene	µg/L	---	---	---	---	0.58
1,2,4-Trimethylbenzene	µg/L	---	---	---	---	120

Parameter[1]	Units	Effluent Limitations				Monitoring Data[2] (July 2001 to July 2005)
		Process Wastewater		Storm Water		
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Highest Daily Concentration
1,3,5-Trimethylbenzene	µg/L	---	---	---	---	34
2,4,5-Trichlorophenol	µg/L	---	---	---	---	19
2,4,6-Tribromophenol	µg/L	---	---	---	---	107
2-Fluorobiphenyl	µg/L	---	---	---	---	52
2-Fluorophenol	µg/L	---	---	---	---	83
2-Methylnaphthalene	µg/L	---	---	---	---	120
2-Methylphenol	µg/L	---	---	---	---	99
4-Bromofluorobenzene	µg/L	---	---	---	---	25
4-Methylphenol	µg/L	---	---	---	---	170
Ammonia – N	mg/L		---	---	---	2.5
	lbs/day	1,330	2,888	---	---	---
Benzoic acid	µg/L	---	---	---	---	89
Carbazole	µg/L	---	---	---	---	3.1
Chemical Oxygen Demand (COD)	mg/L			180	360	290
	lbs/day	13,441	25,902	6,485	12,971	---
Decachlorobiphenyl	µg/L	---	---	---	---	0.39
Dibromofluoromethane	µg/L	---	---	---	---	25
Halomethanes[3]	µg/L	---	---	480	---	---
Isopropylbenzene	µg/L	---	---	---	---	8
Methyl tert-Butyl Ether (MTBE)	µg/L	---	---	---	---	1,400
n-Propylbenzene	µg/L	---	---	---	---	9.4
Nitrobenzene-d5	µg/L	---	---	---	---	42
p-Isopropyltoluene	µg/L	---	---	---	---	16
Tetrachloro-m-xylene	µg/L	---	---	---	---	1.07
Phenolic compounds	mg/L	---	---	0.17	0.35	---
	lbs/day	10.72	30.80	6.1	12.6	---
Phenols	mg/L	---	---	---	---	0.93
Phenol – d6	µg/L	---	---	---	---	101
sec-Butylbenzene	µg/L	---	---	---	---	4
Settleable Solids	ml/L	---	---	0.1	0.3	---
Sulfides	mg/L	---	---	---	---	0.15
	lbs/day	12.25	27.3	---	---	---
Terphenyl-d14	µg/L	---	---	---	---	58
tert-Amyl Methyl Ether (TAME)	µg/L	---	---	---	---	0.33
tert-Butanol (TBA)	µg/L	---	---	---	---	250
tert-Butylbenzene	µg/L	---	---	---	---	0.27
Toluene-d8	µg/L	---	---	---	---	24
Total Organic Carbon	mg/L	---	---	---	---	64
Tributyltin	µg/L	---	---	---	---	0.027
Xylene[3]	µg/L	---	---	---	10	247

[1] Other pollutants analyzed were reported as not detected
[2] Monitoring Data from samples collected from Reservoir 505. The data represents wastewater characteristics of combined process wastewater, storm water, and boiler blowdown before final treatment and discharge through Discharge Point 004.
[3] These pollutants also has mass-based effluent limitations in the existing Order. The mass-based effluent limitations were established using concentration-based effluent limitations shown in this table and a flow of 4.32 MGD.
[4] pH should be between 6 and 9

D. Compliance

1. Compliance Summary

Effluent data submitted by the Discharger to the Regional Water Board for discharge of low volume waste through Discharge Points 001, 002, 003, 004 and 005 indicate that the Discharger has exceeded limitations contained in the existing Order as outlined in Table 6a below. In addition, as shown in Table 6b, the reported detected limits for some pollutants are greater than the monthly average/ daily maximum limits.

Table F-6a
Compliance Summary for Discharge of Low Volume Waste
Through Discharge Points 001, 002, 003, 004 and 005

Discharge Point	Date	Monitoring Period	Violation Type	Pollutant	Reported Value	Order Limitation	Units
004, 005	---	September 2001	Not Reported	All	Not Reported	---	---
004, 005	---	October 2001	Not Reported	All	Flow Not Reported	---	---
003	11/14/2001	November 2001	Maximum	Nickel	16.8	13.47	µg/L
			Average			10.9	
004	8/1/2002 – 8/31/2002	August 2002	Mass Discharge Not Reported	Copper	Monthly Average Not Reported	0.001	lbs/ day
				Mercury		1.88E-5	
				Nickel		0.00251	
				Silver		3.56E-4	
005	12/1/2004 – 12/31/2004	December 2004	Not Reported	Temper-ature	Not Reported	100	°F
				pH (range)	Max pH Not Reported	>6 and <9	S.U.[1]
005	12/15/2004	December 2004	Average	Settleable Solids	0.20	0.1	mg/L
005	12/15/2004	December 2004	Average	Turbidity	53	50	mg/L

[1] S.U. = pH standard units

Table F-6b
Summary of Non-Detected Parameters Whose Reported Limits Exceed Monthly Average or Daily Maximum Limits

Discharge Point	Date	Monitoring Period	Pollutant(s)
003	7/19/2001	July 2001	Mercury, Silver, Pentachlorophenol
003	8/6/2001	August 2001	Pentachlorophenol
003	9/10/2001	September 2001	Mercury, Silver, Pentachlorophenol
003	10/19/2001	October 2001	Mercury, Silver, Pentachlorophenol
003	11/14/2001	November 2001	Mercury, Pentachlorophenol
003	12/7/2001	December 2001	Mercury, Silver, Pentachlorophenol
003	1/14/2002	January 2002	Mercury, Pentachlorophenol
003	2/8/2002	February 2002	Mercury, Silver, Pentachlorophenol
005	2/22/2002		
003	3/4/2002	March 2002	Mercury, Silver, Pentachlorophenol
003	4/1/2002	April 2002	Mercury, Silver, Pentachlorophenol
005	12/15/2004	December 2004	Mercury, Silver, Pentachlorophenol
005	1/25/2005	January 2005	Mercury, Silver, Pentachlorophenol

2. Remedial Measures

The Discharger is planning to discharge low volume wastewater to the treatment system and thence to sanitary sewer. The NPDES permit will be kept as an option to discharge to surface water only when excessive rains creates emergency situation discharges.

E. Planned Changes – Not Applicable

III. Applicable Plans, Policies, and Regulations

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

A. Legal Authorities

This Order is issued pursuant to section 402 of the 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. The Regional Water Board adopted the Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Board Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to Dominguez Channel and Dominguez Channel Estuary are as follows:

Table F-7
Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001, 002, 003, 004, and 005	Dominguez Channel and Dominguez Channel Estuary	Dominguez Channel to Estuary: <u>Existing:</u> Non-contact water recreation (REC-2) and preservation of rare and endangered species (RARE). <u>Potential:</u> Municipal and domestic supply (MUN); water contact recreation (REC-1); warm freshwater habitat (WARM); and wildlife habitat (WILD).
		Dominguez Channel Estuary: <u>Existing:</u> Water contact recreation (REC-1); non-contact water recreation (REC-2); commercial and sport fishing (COMM); estuarine habitat (EST); marine habitat (MAR); wildlife habitat (WILD); preservation of rare and endangered species (RARE); migration of aquatic organisms (MIGR); and spawning, reproduction, and/or early development (SPWN). <u>Potential:</u> Navigation (NAV).

2. Thermal Plan. The 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.

3. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.

4. State Implementation Policy. On March 2, 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

5. 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 Board established California's antidegradation policy in State Board Resolution 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. As discussed in detail in this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Board Resolution 68-16.

6. 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. Some effluent limitations in this Order are less stringent that those in the existing Order. As discussed in Section IV.D of this Fact Sheet, this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

7. 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.

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 Board plans to develop and adopt TMDLs that will specify WLAs for point sources and load allocations (LAs) for non-point sources, as appropriate.

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) lists and have been scheduled for TMDL development. According to the 2002 303(d) list, the Dominguez Channel (Estuary to Vermont Avenue) is impaired for aldrin (tissue), ammonia, benthic community effects, chemA (tissue), chlordane (tissue), chromium (sediment), DDT (tissue and sediment), dieldrin (tissue), high coliform count, lead (tissue), PAHs (sediment), and zinc (sediment). To date, no TMDL has been completed for this segment of water. Therefore, no conditions in this Order are based on TMDLs. This Order may be reopened, if needed, to incorporate TMDL requirement.

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 Orders include applicable technology-based limitations and standards; and 40 CFR §122.44(d) requires that Orders 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 reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) may be established: (1) using USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) on an indicator parameter for the pollutant of concern; or (3) using a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The Facility is a petroleum refinery that processes crude oil into various products, including gasoline, diesel fuel, jet fuel, sulfur, coke, LPG, and polypropylene. The discharges from the facility through Discharge Points 001, 002, 003, 004, and 005 consist of Waste Stream 1 consisting of low volume wastes of steam condensate, atmospheric condensate, noncontaminated service water, air conditioning condensate, irrigation runoff and fire system water. Typical pollutants of concern in these waste streams may include solids, oil and grease, heat, chlorine, sulfides, detergents, organic compounds, and metals. Solids and parameters contributing to oxygen demand are commonly present in wastewater of industrial facilities and therefore, 5-day biochemical oxygen demand @ 20°C (BOD), total suspended solids (TSS), turbidity, and settleable solids are pollutants of concern. Also, pH, temperature, chlorine, sulfides, detergents (MBAS) may be in the discharge and are pollutants of concern because the discharge of these type of wastewater has the potential to adversely affect the water quality and the aquatic life of the receiving water. In addition, these waste streams are a potential source of oil and grease, organic compounds and metals. When the existing Order was issued in 2001, BOD, oil and grease, pH, TSS, turbidity, settleable solids, temperature, residual chlorine, sulfides, detergents (MBAS), copper, mercury, nickel, silver, xylene, pentachlorophenol, dichloromethane (methylene chloride) and fluoranthene were considered pollutants of concern and were regulated

in the existing Order. The Facility operation has not changed significantly since the existing Order was issued. Therefore, these pollutants are also considered pollutants of concern for this Order. The Regional Water Board determines that regulating xylene, pentachlorophenol, methylene chloride, and fluoranthene will control other organic compounds from the discharge. Similarly, regulating copper, mercury, nickel, silver will control other metals from the discharge. The Regional Water Board determines the need to control pollutants previously regulated in Order No. 01-078 is still required.

The Facility also discharges Waste Stream 2 consisting of process wastewater commingled with storm water and Waste Stream 3 consisting of boiler blowdown through Discharge Point 004. Similar to the aforementioned discussion, typical pollutants present in these waste streams may include solids, oxygen demanding substances, oil and grease, ammonia, sulfides, organic compounds, and metals. Solids are commonly present in wastewater of industrial facilities and therefore, TSS, turbidity and settleable solids are pollutants of concern. Also, pH and temperature are pollutants of concern because the discharge of industrial wastewater and storm water also has the potential to affect the pH and temperature of the receiving water body. Refinery process wastewater and contaminated storm water commonly contain oxygen demanding substances and therefore, BOD and chemical oxygen demand (COD) are pollutants of concern. In addition, the Facility deals with crude oil and refinery products that are a potential source of oil and grease, ammonia, organic compounds, and metals.

The Facility currently discharges Waste Stream 2 and Waste Stream 3 to the Dominguez Channel through Discharge Point 004. However, under the existing Order (No. 01-078), Waste Stream 2 and Waste Stream 3 discharged through two different discharge points (i.e., Waste Stream 2 discharged through Discharge Point 004 while Waste Stream 3 discharged through Discharge Point 002). As a result, these two waste streams were regulated differently in the existing Order. Parameters such as BOD, TSS, COD, oil and grease, sulfides, settleable solids, copper, mercury, zinc, 1,1-dichloroethylene, trichloroethylene, tetrachloroethylene, vinyl chloride, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethane, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 2,4,6-trichlorophenol, halomethanes, hexachlorobenzene, alpha-hexachlorocyclohexane (alpha-BHC), beta-hexachlorocyclohexane (beta-BHC), gamma-hexachlorocyclohexane (gamma-BHC), xylene, pentachlorophenol, methylene chloride, and fluoranthene were individually regulated for both Waste Stream 2 and Waste Stream 3. In addition, ammonia, phenolic compounds, chromium, benzene were regulated for Waste Stream 2 and silver and cyanide were regulated for Waste Stream 3. Because the current discharge through Discharge Point 004 consists of both the waste streams and the Facility operation has not changed significantly since the existing Order was issued, all the above pollutants are still considered pollutants of concern for this Order. The Regional Water Board determines that regulating benzene, 1,1-dichloroethylene, trichloroethylene, tetrachloroethylene, vinyl chloride, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethane, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 2,4,6-trichlorophenol, halomethanes, alpha-BHC, beta-BHC, gamma-BHC, xylene, pentachlorophenol, methylene chloride, and fluoranthene will control other organic compounds from the discharge. Similarly, regulating copper, mercury, silver, and zinc will control other metals from the discharge. Regulating cyanide will reduce toxicity from the effluent.

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 limitations, standards or prohibitions in the Order 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 limitations in an Order on a case-by-case basis limitations based on mass are infeasible because the mass or pollutant cannot be related to a measure of production. The limitations, however, must ensure that dilution will not be used as a substitute for treatment.

The Report of Waste Discharge indicates that the discharge rate of low volume wastes through Discharge Points 001, 002, 003, 004, and 005 is 0.045 MGD. Therefore, the proposed mass-based limitations for discharge of low volume wastes through Discharge Points 001, 002, 003, 004 and 005 are based on a flow of 0.045 MGD. The discharge of process wastewater commingled with stormwater and boiler blowdown through Discharge Point 004 is upto 4.4 MGD. The discharge through Discharge Point 004 consists of approximately 70% (3 MGD) storm water and 30% process wastewater (1.4 MGD) with boiler blowdown contributing to less than 5% (0.22 MGD) of the total discharge. Therefore, the proposed technology-based mass limitations for select parameters for storm water, boiler blowdown, and process wastewater discharged through Discharge Point 004 is based on a flow of 4.4 MGD.

A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan, State Water Board's plans and policies, CWC, and provisions in existing Order, and are consistent with the requirements set for other discharges regulated by NPDES permits to the Dominguez Channel.

B. Technology-Based Effluent Limitations

1. Scope and Authority

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

a. 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.

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) is a standard for the control from existing industrial point sources of conventional pollutants including BOD, TSS, oil and grease, fecal coliform, and pH. 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) 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 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 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

Waste Stream 1 (low volume wastes)

In accordance with 40 CFR §125.3, this Order includes technology-based effluent limitations discharge of Waste Stream 1 through Discharge Points 001, 002, 003, 004 and 005 based on BPJ. As discussed earlier, BOD, oil and grease, and TSS are pollutants of concern for this type of discharge and existing Order includes effluent limitations for these pollutants. The effluent concentration limitations for all of the above pollutants in this Order are carried over from the existing Order (Order No. 01-078) based on BPJ. The Regional Water Board determine based on BPJ, that these numeric effluent limitations continue to be applicable to the Facility and that backsliding under CWA Section 402(o) is not appropriate. However, to be consistent with similar Orders recently issued by the Regional Water Board, the daily maximum daily effluent limitations (MDELs) for TSS in this Order have been revised to 75 mg/L.

In addition, mass-based effluent limitations in this Order are established for BOD, oil and grease, and TSS. The mass-based effluent limitations are obtained from the flow and the effluent concentration limitation using the equation (1) below. The mass-based limitations for the discharge of low volume wastes through Discharge Points 001, 002, 003, 004 and 005 are based on a flow of 0.045 MGD reported in the Report of Waste Discharge.

Mass (lbs/day) = Flow Rate (MGD) x 8.34 x Effluent Limitation (mg/L) (1)

where:

Mass = mass limitation for a pollutant (lbs/day)
Effluent limitation = concentration limitation for a pollutant (mg/L)
Flow rate = discharge flow rate (MGD)

A summary of the technology-based effluent limitations for Waste Stream 1 is shown in Table F-8.

Waste Stream 2 (process wastewater and storm water) and Waste Stream 3 (boiler blowdown):

The discharge through Discharge Point 004 consists of two waste streams – Waste Stream 2 and Waste Stream 3. Waste Stream 2 consists of process wastewater from

the refinery and the storm water runoff from process areas while Waste Stream 3 consists of boiler blowdown from boiler feed water in the refinery and cogeneration facility. The procedure for determination of technology-based effluent limitations for Waste Stream 2 and Waste Stream 3 is provided below:

Flow

The limits are based on the following flow rates:

Total flow through Discharge Point 004	= 4.4 MGD
Waste Stream 3 flow (5% of discharge)	= 0.22 MGD
Therefore, Waste Stream 2 flow	= 4.4 – 0.22 = 4.18 MGD
Storm water flow in Waste Stream 2 (70% of discharge)	= 3.0 MGD
Process wastewater flow in Waste Stream 2	= 4.18 – 3.0 = 1.18 MGD

Mass-based Limits for BOD, TSS, COD, oil and grease, ammonia, sulfides, phenolic compounds, total chromium, and chromium VI Constituents:

Based on the type of operation, the Facility is categorized as a petrochemical refinery as defined in 40 CFR § 419.30 (Effluent Limitation Guidelines and Standards for the Petroleum Refining Point Source Category[ELGs]). The subpart applies to discharges resulting from the manufacture of petroleum products by topping, cracking, petrochemical operations and any other refinery process, except lube operations. Because Waste Stream 2 consists of process wastewater commingled with contaminated runoff, mass-based effluent limitations established in 40 CFR §§ 419.32, 419.33, and 419.34 are applicable to the discharge. 40 CFR §§ 419.32, 419.33, and 419.34 contain the BPT, BAT, and BCT limitations for BOD, TSS, COD, oil and grease, ammonia, sulfides, phenolic compounds, total chromium, and chromium VI for process wastewater and contaminated storm water. The effluent limitations for process wastewater and contaminated storm water are determined separately by selecting the most stringent of the BPT, BAT, and BCT limitations. The storm water effluent limitations are based on a storm water flow of 3 MGD. The final mass-based effluent limitations for Waste Stream 2 based on ELG are obtained by adding the storm water mass-based effluent limits to those determined for the process wastewater.

The ELG limits after converting to concentration based are compared with the technology based limits and the most stringent of the two are proposed as limits for BOD, TSS, oil and grease, and sulfides.

Waste Stream 2 is mixed with Waste Stream 3 that constitutes less than 5% of the total discharge. The selected concentration limits used for stream 3 is also used for stream 3. A summary of the ELG based effluent limitations for the discharge of Waste Stream 2 and Waste Stream 3 through Discharge Point 004 is shown in Table F-9. Table F-9a is a summary of the ELG and technology based limits. As stated earlier, the stringent of the two limits is used as effluent limits for Waste Streams 2 and 3.

Table F-8
Summary of Technology-based Effluent Limitations
Waste Stream 1 (Low Volume Waste)
Discharge Points 001, 002, 003, 004 and 005

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Conventional Pollutants			
Biochemical Oxygen Demand 5-day @ 20°C (BOD)	mg/L	20	30
	lbs/day[1]	7.5	11
Oil and Grease	mg/L	10	15
	lbs/day[1]	3.8	5.6
Total Suspended Solids (TSS)	mg/L	50	75
	lbs/day[1]	19	28

[1] Mass-based effluent limitations based on a flow of 0.045 MGD.

Table F-9
Summary of ELG Based Effluent Limitations
Waste Stream 2 (Process Wastewater Commingled with Storm Water)
and Waste Stream 3 (Boiler Blowdown)
Discharge Point 004

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Biochemical Oxygen Demand 5-day @ 20°C (BOD)	lbs/day	3,279	6063	---	---
	mg/L [1]	90	166		
Oil and Grease	lbs/day	1,054	1,967	---	---
	mg/L [1]	29	54		
pH	standard units	---	---	6.0	9.0
Total Suspended Solids (TSS)	lbs/day	2,717	4,274	---	---

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
	mg/L [1]	74	117		
Ammonia as N	lbs/day	1,507	3,272	---	---
	mg/L [1]	41	89		
Chemical Oxygen Demand (COD)	lbs/day	20,091	39,071	---	---
	mg/L [1]	548	1066		
Chromium, Total	lbs/day	18	51	---	---
	µg/L [1]	491	1391		
Chromium (VI)	lbs/day	1.7	3.9	---	---
	µg/L [1]	46	106		
Phenols (4AAP)	lbs/day	15	44	---	---
	µg/L [1]	409	1200		
Sulfides	lbs/day	14	33	---	---
	µg/L [1]	382	900		

1. The ELG based mass limits are converted to concentration values using a discharge flow of 4.4 MGD.

Table F-9a
Summary of ELG and Technology Based Effluent Limitations
Waste Stream 2 (Process Wastewater Commingled with Storm Water)
and Waste Stream 3 (Boiler Blowdown)
Discharge Point 004

Parameter	Units	ELG Based Limitations		Technology Based Limitations	
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily
Biochemical Oxygen Demand 5-day @ 20°C (BOD)	mg/L	90	116	20	30
Chemical Oxygen Demand (COD)	mg/L	548	1066	80	120
Oil and Grease	mg/L	29	54	10	15
Total Suspended Solids (TSS)	mg/L	74	116	50	75
Ammonia as N	mg/L	41	89	0.035 [1]	0.233 [1]

1. Based on Basin Plan Amendment – Salt Water Ammonia Objectives for Inland Surface Waters (Regional Board Resolution No. 2004-022). The four day average concentration of un-ionized ammonia shall not exceed 0.035 mg/l and one hour average concentration shall not exceed 0.233 mg/L. The un-ionized ammonia concentration must be converted to total ammonia using the implementation procedure in the Regional Board Resolution.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

As specified in 40 CFR §122.44(d)(1)(i), Orders 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 of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or water quality criteria contained in the CTR and NTR. The specific procedures for determining reasonable potential and, if necessary, for calculating WQBELs for pollutants are contained in the USEPA Technical Support Document (TSD). However, the TSD states that "an analogous approach developed by a regulatory authority can be used to determine the reasonable potential". As discussed in Section III.C.4, the SIP contains specific procedures for determining reasonable potential and, if necessary, for calculating WQBELs for toxic pollutants contained in non-storm water discharges. Hence, in this Order, the Regional Water Board determines the SIP methodology is appropriate to evaluate reasonable potential for discharges through Discharge Points 001, 002, 003, 004, and 005.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The receiving water is the Dominguez Channel. The beneficial uses applicable to the Dominguez Channel are summarized in Section III.C.1 of this Fact Sheet.

Priority pollutant water quality criteria in the CTR are applicable to the Dominguez Channel. The CTR contains aquatic saltwater criteria, aquatic freshwater criteria, and human health criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply in accordance with 40 CFR §131.38(c)(3):

a. the freshwater criteria apply at receiving water salinities of 1 part per thousand and below at locations where this occurs 95% or more of the time;

b. the saltwater criteria apply at receiving water salinities of 10 parts per thousand and above at locations where this occurs 95% more of the time; and

c. at receiving water salinities between 1 and 10 parts per thousand the more stringent of the two apply.

The salinity of the receiving water is high because it is located within a coastal waterway. The maximum salinity reported for receiving water is 31,000 ppm (at RW3 in the existing Order). Human health criteria for consumption of organisms are applicable to all discharges, while human health criteria for consumption water and organisms are only applicable to discharges that discharge to a receiving water with existing municipal and domestic (MUN) domestic use. Based on the salinity and the designated beneficial use, the CTR criteria for the

protection of aquatic saltwater organisms or human health for consumption of organisms only, whichever is more stringent, apply to discharges to the Dominguez Channel.

3. Determining the Need for WQBELs

In accordance with Section 1.3 of the SIP, the Regional Water Board conducts an RPA for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the Order. The Regional Water Board analyzes effluent and receiving water data and identifies the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent. To determine reasonable potential, the MEC and the B are then compared with the applicable water quality objectives (C) outlined in the CTR, NTR, as well as the Basin Plan. For all pollutants that have a reasonable potential to cause or contribute to an excursion above a state water quality standard, numeric WQBELs are required.

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

a. Trigger 1 – If the MEC ≥ C, a limitation is needed.

b. Trigger 2 – If B > C and pollutant is detected in effluent, a limitation is needed.

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

The Discharger submitted monitoring data from July 2001 to May 2005 for discharges of Waste Stream 1 (low volume wastes) through Discharge Points 001, 002, 003, 004 and 005.
No effluent data are available for the discharge of combined Waste Stream 2 (process wastewater commingled with storm water) and Waste Stream 3 (boiler blowdown) through Discharge Point 004 because the Facility did not discharge combined Waste Stream 2 and Waste Stream 3 through Discharge Point 004 during the entire term of the existing Order. Further, no receiving water data are available. The Discharger submitted only one set of data for copper and zinc for receiving water (RW3 in the existing Order).

An RPA was performed for the discharges of Waste Stream 1 (low volume wastes) through Discharge Points 001, 002, 003, 004, and 005 with the data submitted by the Discharger. Based on the RPA, there is reasonable potential to exceed water quality criteria for copper, mercury, nickel, zinc,

benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE and heptachlor epoxide. In addition, the Regional Water Board determines that silver, methylene chloride, pentachlorophenol, and fluoranthene demonstrate reasonable potential to exceed water quality criteria based on Trigger 3, since they are considered pollutants of concern for this type of discharge and the existing Order includes WQBELs for these pollutants. Therefore, this Order carries over the reasonable potential determination for these pollutants. Refer to Attachment J for a summary of the RPA and associated effluent limitation calculations. Table F-10 summarizes the applicable water quality criteria for priority pollutants reported in detectable concentrations in the effluent of Waste Stream 1 through Discharge Points 001, 002, 003, 004, and 005. These criteria were used in conducting the RPA for this Order. Table F-11 summarizes the results of the RPA.

Table F-10
Applicable Water Quality Criteria
Waste Stream 1 (Low Volume Wastes)

CTR No.	Constituent	Selected Criteria	CTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Acute	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
1	Antimony	4300.00						4300.00
2	Arsenic	36			69	36		
3	Beryllium	No Criteria						Narrative
4	Cadmium	9.36			42.25	9.36		Narrative
5a	Chromium (III)	No Criteria						Narrative
5b	Chromium (VI) or total Cr	50.35			1107.75	50.35		Narrative
6	Copper	3.7	---	---	5.8	3.7	---	---
7	Lead	8.5	---	---	221	8.5	---	Narrative
8	Mercury	0.051	---	---	Reserved	Reserved	---	0.051
9	Nickel	8.3	---	---	75	8.3	---	4600
10	Selenium	71	---	---	290.58	71.14	---	Narrative
11	Silver	2.2	---	---	2.2		---	---
12	Thallium	6.3	---	---			---	---
13	Zinc	86	---	---	95	86	---	---
14	Cyanide	1.00	---	---	1.00	1.00		220000.00
15	Asbestos	No Criteria	---	---				
16	2,3,7,8-TCDD (Dioxin)	0.000000014	---	---	---	---	---	0.000000014
17	Acrolein	780.00	---	---	---	---	---	780.00
18	Acrylonitrile	0.66	---	---	---	---	---	0.66
19	Benzene	71	---	---	---	---	---	71
20	Bromoform	360	---	---	---	---	---	360
21	Carbon Tetrachloride	4	---	---	---	---	---	4
22	Chlorobenzene	21000	---	---	---	---	---	21000
23	Chlordibromomethane	34	---	---	---	---	---	34
24	Chloroethane	No Criteria	---	---	---	---	---	

CTR No.	Constituent	Selected Criteria	CTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Acute	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
25	2-Chloroethylvinyl Ether	No Criteria	---	---	---	---	---	
26	Chloroform	No Criteria	---	---	---	---	---	---
27	Dichlorobromomethane	46	---	---	---	---	---	46
28	1,1-Dichloroethane	No Criteria	---	---	---	---	---	
29	1,2-Dichloroethane	99	---	---	---	---	---	99
30	1,1-Dichloroethylene	3	---	---	---	---	---	3
31	1,2-Dichloropropane	39	---	---	---	---	---	39
32	1,3-Dichloropropylene	1700	---	---	---	---	---	1700
33	Ethylbenzene	29000	---	---	---	---	---	29000
34	Methyl Bromide	4000	---	---	---	---	---	4000
35	Methyl Chloride	No Criteria	---	---	---	---	---	
36	Methylene Chloride[1]	1600	---	---	---	---	---	1600
37	1,1,2,2-Tetrachloroethane	11.00	---	---	---	---	---	11
38	Tetrachloroethylene	8.85	---	---	---	---	---	9
39	Toluene	200000	---	---	---	---	---	200000
40	1,2-Trans-Dichloroethylene	140000.00	---	---	---	---	---	140000
41	1,1,1-Trichloroethane	No Criteria	---	---	---	---	---	
42	1,1,2-Trichloroethane	42.00	---	---	---	---	---	42
43	Trichloroethylene	81	---	---	---	---	---	81
44	Vinyl Chloride	525.00	---	---	---	---	---	525
45	Chlorophenol	400.00	---	---	---	---	---	400
46	2,4-Dichlorophenol	790.00	---	---	---	---	---	790
47	2,4-Dimethylphenol	2300.00	---	---	---	---	---	2300
48	2-Methyl-4,6-Dinitrophenol	765.00	---	---	---	---	---	765
49	2,4-Dinitrophenol	14000.00	---	---	---	---	---	14000
50	2-Nitrophenol	No Criteria	---	---	---	---	---	
51	4-Nitrophenol	No Criteria	---	---	---	---	---	
52	3-Methyl-4-Chlorophenol	No Criteria	---	---	---	---	---	
53	Pentachlorophenol	7.90	---	---	---	---	---	8
54	Phenol	4600000	---	---	---	---	---	4600000
55	2,4,6-Trichlorophenol	6.50	---	---	---	---	---	6.50
53	Pentachlorophenol	7.9	---	---	13	7.9	---	8.2
56	Acenaphthene	2700	---	---	---	---	---	2700
57	Acenephthylene	No Criteria	---	---	---	---	---	
58	Anthracene	110000	---	---	---	---	---	110000
59	Benzidine	0.00	---	---	---	---	---	0.00
60	Benzo(a)Anthracene	0.049	---	---	---	---	---	0.049
61	Benzo(a)Pyrene	0.049	---	---	---	---	---	0.049

CTR No.	Constituent	Selected Criteria	CTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Acute	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
62	Benzo(b)Fluoranthene	0.049	---	---	---	---	---	0.049
63	Benzo(ghi)Perylene	No Criteria	---	---	---	---	---	
64	Benzo(k)Fluoranthene	0.049	---	---	---	---	---	0.049
65	Bis(2-Chloroethoxy)Methane	No Criteria	---	---	---	---	---	
66	Bis(2-Chloroethyl)Ether	1.400	---	---	---	---	---	1.400
67	Bis(2-Chloroisopropyl)Ether	170000.000	---	---	---	---	---	170000.000
68	Bis(2-Ethylhexyl)Phthalate	5.900	---	---	---	---	---	5.900
69	4-Bromophenyl Phenyl Ether	No Criteria	---	---	---	---	---	
70	Butylbenzyl Phthalate	5200.000	---	---	---	---	---	5200.000
71	2-Chloronaphthalene	4300.000	---	---	---	---	---	4300.000
72	4-Chlorophenyl Phenyl Ether	No Criteria	---	---	---	---	---	
73	Chrysene	0.049	---	---	---	---	---	0.049
74	Dibenzo(a,h)Anthracene	0.05	---	---	---	---	---	0.05
75	1,2-Dichlorobenzene	17000.00	---	---	---	---	---	17000.00
76	1,3-Dichlorobenzene	2600.00	---	---	---	---	---	2600.00
77	1,4-Dichlorobenzene	2600.00	---	---	---	---	---	2600.00
78	3,3'-Dichlorobenzidine	0.08	---	---	---	---	---	0.08
79	Diethyl Phthalate	120000.00	---	---	---	---	---	120000.00
80	Dimethyl Phthalate	2900000.00	---	---	---	---	---	2900000.00
81	Di-n-Butyl Phthalate	12000	---	---	---	---	---	12000
82	2,4-Dinitrotoluene	9.10	---	---	---	---	---	9
83	2,6-Dinitrotoluene	No Criteria	---	---	---	---	---	
84	Di-n-Octyl Phthalate	No Criteria	---	---	---	---	---	
85	1,2-Diphenylhydrazine	0.54	---	---	---	---	---	1
86	Fluoranthene	370	---	---	---	---	---	370
87	Fluorene	14000	---	---	---	---	---	14000
88	Hexachlorobenzene	0.00	---	---	---	---	---	0.00
89	Hexachlorobutadiene	50.00	---	---	---	---	---	50.00
90	Hexachlorocyclopentadiene	17000.00	---	---	---	---	---	17000.00
91	Hexachloroethane	8.90	---	---	---	---	---	8.90
92	Indeno(1,2,3-cd) Pyrene	0.049	---	---	---	---	---	0.049
93	Isophorone	600.00	---	---	---	---	---	600.00
94	Naphthalene	No Criteria	---	---	---	---	---	---
95	Nitrobenzene	1900.00	---	---	---	---	---	1900.00
96	N-	8.10	---	---	---	---	---	8.10

CTR No.	Constituent	Selected Criteria	CTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Acute	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	Nitrosodimethylamine							
97	N-Nitrosodi-n-Propylamine	1.40	---	---	---	---	---	1.40
98	N-Nitrosodiphenylamine	16.00	---	---	---	---	---	16.00
99	Phenanthrene	No Criteria	---	---	---	---	---	---
100	Pyrene	11000	---	---	---	---	---	11000
101	1,2,4-Trichlorobenzene	No Criteria	---	---				
102	Aldrin	0.00014	---	---	1.3	---	---	0.00014
103	alpha-BHC	0.01	---	---				0.01
104	beta-BHC	0.05	---	---				0.05
105	gamma-BHC	0.06	---	---	0.16			0.06
106	delta-BHC	No Criteria	---	---	---	---	---	---
107	Chlordane	0.00	---	---	---	---	---	0.00
108	4,4-DDT	0.00	---	---	---	---	---	0.00
109	4,4-DDE	0.00059	---	---	---	---	---	0.00059
110	4,4-DDD	0.00	---	---				0.00084
111	Dieldrin	0.00	---	---	0.71	0.00		0.00014
112	alpha-Endosulfan	0.01	---	---	0.03	0.01		240.00000
113	beta-Endosulfan	0.01	---	---	0.03	0.01		240.00000
114	Endosulfan Sulfate	240.00	---	---				240.00000
115	Endrin	0.00	---	---	0.04	0.00		0.81000
116	Endrin Aldehyde	0.81	---	---				0.81000
117	Heptachlor	0.00	---	---	0.05	0.00		0.00021
118	Heptachlor Epoxide	0.00011	---	---	0.053	0.0036	---	0.00011

[1]Dichloromethane

Table F-11
Summary Reasonable Potential Analysis
Waste Stream 1 (Low Volume Wastes)

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc (MEC) µg/L	Maximum Detected Receiving Water Conc. (B) µg/L	RPA Result - Need Limit?	Reason
1	Antimony	4300.00			Ud	No effluent data & no B
2	Arsenic	36			Ud	No effluent data & no B
3	Beryllium	No Criteria	No Criteria		Uc	No Criteria
4	Cadmium	9.36			Ud	No effluent data & no B
5a	Chromium (III)	No Criteria	No Criteria		Uc	No Criteria
5b	Chromium (VI)	50.35			Ud	No effluent data & no B
6	Copper	3.7	38	5.5	Yes	MEC>=C
7	Lead	8.5	5.5	---	No	Ud;MEC<C & no B
8	Mercury	0.051	0.065	---	Yes	MEC>=C
9	Nickel	8.3	17	---	Yes	MEC>=C
10	Selenium	71	---	---	U_d[1]	No effluent data & no B
11	Silver	2.2	0.16	---	No[2]	Ud;MEC<C & no B
12	Thallium	6.3			Ud	No effluent data & no B
13	Zinc	86	1020	45	Yes	MEC>=C
14	Cyanide	1.00			Ud	No effluent data & no B
15	Asbestos	No Criteria	No Criteria		Uc	No Criteria
16	2,3,7,8 TCDD	0.00000014	0.0000095	---	No	[3]
17	Acrolein	780.00			Ud	No effluent data & no B
18	Acrylonitrile	0.66			Ud	No effluent data & no B
19	Benzene	71			Ud	No effluent data & no B
20	Bromoform	360	0.5		No	Ud;MEC<C & no B
21	Carbon Tetrachloride	4	0.5		No	Ud;MEC<C & no B
22	Chlorobenzene	21000	1		No	Ud;MEC<C & no B
23	Chlorodibromomethane	34	1	---	No	Ud;MEC<C & no B
24	Chloroethane	No Criteria	No Criteria		Uc	No Criteria
25	2-Chloroethylvinyl ether	No Criteria	No Criteria		Uc	No Criteria
26	Chloroform	No Criteria	0.88	---	Uc[1]	No Criteria
27	Dichlorobromomethane	46	0.35	---	No	Ud;MEC<C & no B
28	1,1-Dichloroethane	No Criteria	No Criteria		Uc	No Criteria
29	1,2-Dichloroethane	99	0.5		No	Ud;MEC<C & no B
30	1,1-Dichloroethylene	3	1.1	---	No	Ud;MEC<C & no B
31	1,2-Dichloropropane	39	0.5		No	Ud;MEC<C & no B
32	1,3-Dichloropropylene	1700	0.5		No	Ud;MEC<C & no B
33	Ethylbenzene	29000	0.5		No	Ud;MEC<C & no B
34	Methyl Bromide	4000	1		No	Ud;MEC<C & no B
35	Methyl Chloride	No Criteria	No Criteria		Uc	No Criteria

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc (MEC) µg/L	Maximum Detected Receiving Water Conc. (B) µg/L	RPA Result - Need Limit?	Reason
36	Methylene Chloride[4]	1600	22	---	No[2]	Ud;MEC<C & no B
37	1,1,2,2-Tetrachloroethane	11	0.5		No	Ud;MEC<C & no B
38	Tetrachloroethylene	9	0.5		No	Ud;MEC<C & no B
39	Toluene	200000	2.7	---	No	Ud;MEC<C & no B
40	1,2-Trans-Dichloroethylene	140000.00			Ud	No effluent data & no B
41	1,1,1-Trichloroethane	No Criteria	No Criteria		Uc	No Criteria
42	1,1,2-Trichloroethane	42.00	0.5		No	Ud;MEC<C & no B
43	Trichloroethylene	81	0.88	---	No	Ud;MEC<C & no B
44	Vinyl Chloride	525	0.5		No	Ud;MEC<C & no B
45	2-Chlorophenol	400	10		No	Ud;MEC<C & no B
46	2,4-Dichlorophenol	790	1.9		No	Ud;MEC<C & no B
47	2,4-Dimethylphenol	2300	1.9		No	Ud;MEC<C & no B
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	765	20		No	Ud;MEC<C & no B
49	2,4-Dinitrophenol	14000	19		No	Ud;MEC<C & no B
50	2-Nitrophenol	No Criteria	No Criteria		Uc	No Criteria
51	4-Nitrophenol	No Criteria	No Criteria		Uc	No Criteria
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria	No Criteria		Uc	No Criteria
53	Pentachlorophenol	8			No	UD;Effluent ND,MDL>C & No B
54	Phenol	4600000	10		No	Ud;MEC<C & no B
55	2,4,6-Trichlorophenol	7	1.9		No	Ud;MEC<C & no B
53	Pentachlorophenol	7.9	---	---	No[2]	UD;Effluent ND, MDL>C & No B
56	Acenaphthene	2700	0.89	---	No	Ud;MEC<C & no B
57	Acenaphthylene	No Criteria	No Criteria		Uc	No Criteria
58	Anthracene	110000	0.31	---	No	Ud;MEC<C & no B
59	Benzidine	0.00			No	UD;Effluent ND,MDL>C & No B
60	Benzo(a)Anthracene	0.049	0.39	---	Yes	MEC>=C
61	Benzo(a)Pyrene	0.049	0.012	---	No	Ud;MEC<C & no B
62	Benzo(b)Fluoranthene	0.049	0.014	---	No	Ud;MEC<C & no B
63	Benzo(ghi)Perylene	No Criteria	No Criteria		Uc	No Criteria
64	Benzo(k)Fluoranthene	0.049			No	UD;Effluent ND,MDL>C & No B
65	Bis(2-Chloroethoxy)Methane	No Criteria	No Criteria		Uc	No Criteria
66	Bis(2-Chloroethyl)Ether	1.400			No	UD;Effluent ND,MDL>C

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc (MEC) µg/L	Maximum Detected Receiving Water Conc. (B) µg/L	RPA Result - Need Limit?	Reason
						& No B
67	Bis(2-Chloroisopropyl)Ether	170000.000	10		No	Ud;MEC<C & no B
68	Bis(2-Ethylhexyl)Phthalate	5.900			No	UD;Effluent ND,MDL>C & No B
69	4-Bromophenyl Phenyl Ether	No Criteria	No Criteria		Uc	No Criteria
70	Butylbenzyl Phthalate	5200.000	20		No	Ud;MEC<C & no B
71	2-Chloronaphthalene	4300.000	10		No	Ud;MEC<C & no B
72	4-Chlorophenyl Phenyl Ether	No Criteria	No Criteria		Uc	No Criteria
73	Chrysene	0.049	1	---	Yes	MEC>=C
74	Dibenzo(a,h)Anthracene	0.05			No	UD;Effluent ND,MDL>C & No B
75	1,2-Dichlorobenzene	17000.00	1		No	Ud;MEC<C & no B
76	1,3-Dichlorobenzene	2600.00	1		No	Ud;MEC<C & no B
77	1,4-Dichlorobenzene	2600.00	1		No	Ud;MEC<C & no B
78	3,3 Dichlorobenzidine	0.08			Ud	No effluent data & no B
79	Diethyl Phthalate	120000.00	10		No	Ud;MEC<C & no B
80	Dimethyl Phthalate	2900000.00	10		No	Ud;MEC<C & no B
81	Di-n-Butyl Phthalate	12000.00	9.1	---	No	Ud;MEC<C & no B
82	2,4-Dinitrotoluene	9.10			No	UD;Effluent ND,MDL>C & No B
83	2,6-Dinitrotoluene	No Criteria	No Criteria		Uc	No Criteria
84	Di-n-Octyl Phthalate	No Criteria	No Criteria		Uc	No Criteria
85	1,2-Diphenylhydrazine	0.54			No	UD;Effluent ND,MDL>C & No B
86	Fluoranthene	370	0.090	---	No[2]	Ud;MEC<C & no B
87	Fluorene	14000	1.5	---	No	Ud;MEC<C & no B
88	Hexachlorobenzene	0.00			No	UD;Effluent ND,MDL>C & No B
89	Hexachlorobutadiene	50.00	0.5		No	Ud;MEC<C & no B
90	Hexachlorocyclopentadiene	17000.00	20		No	Ud;MEC<C & no B
91	Hexachloroethane	8.90			No	UD;Effluent ND,MDL>C & No B
92	Indeno(1,2,3-cd)Pyrene	0.049	0.0087	---	No	Ud;MEC<C & no B
93	Isophorone	600.00	10		No	Ud;MEC<C & no B
94	Naphthalene	No Criteria	11	---	Uc[1]	No Criteria
95	Nitrobenzene	1900.00	20		No	Ud;MEC<C & no B
96	N-Nitrosodimethylamine	8.10			Ud	No effluent data & no B
97	N-Nitrosodi-n-	1.40			No	UD;Effluent ND,MDL>C

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc (MEC) µg/L	Maximum Detected Receiving Water Conc. (B) µg/L	RPA Result - Need Limit?	Reason
	Propylamine					& No B
98	N-Nitrosodiphenylamine	16.00	10		No	Ud;MEC<C & no B
99	Phenanthrene	No Criteria	3.8	---	Uc[1]	No Criteria
100	Pyrene	11000	0.64	---	No	Ud;MEC<C & no B
101	1,2,4-Trichlorobenzene	No Criteria	No Criteria		Uc	No Criteria
102	Aldrin	0.00014	0.0071	---	Yes	MEC>=C
103	alpha-BHC	0.01	0.005		No	Ud;MEC<C & no B
104	beta-BHC	0.05	0.01		No	Ud;MEC<C & no B
105	gamma-BHC	0.06	0.01		No	Ud;MEC<C & no B
106	delta-BHC	No Criteria	0.035	---	Uc[1]	No Criteria
107	Chlordane	0.00			No	UD;Effluent ND,MDL>C & No B
108	4,4'-DDT	0.00			No	UD;Effluent ND,MDL>C & No B
109	4,4'-DDE	0.00059	0.031	---	Yes	MEC>=C
110	4,4'-DDD	0.00			No	UD;Effluent ND,MDL>C & No B
111	Dieldrin	0.00			No	UD;Effluent ND,MDL>C & No B
112	alpha-Endosulfan	0.01	0.005		No	Ud;MEC<C & no B
113	beta-Endolsulfan	0.01	0.005		No	Ud;MEC<C & no B
114	Endosulfan Sulfate	240.00	0.01		No	Ud;MEC<C & no B
115	Endrin	0.00			No	UD;Effluent ND,MDL>C & No B
116	Endrin Aldehyde	0.81	0.01		No	Ud;MEC<C & no B
117	Heptachlor	0.00			No	UD;Effluent ND,MDL>C & No B
118	Heptachlor Epoxide	0.00011	0.0090	---	Yes	MEC>=C

[1] U_d = Undetermined; Uc= Undetermined due to no criteria

[2] The pollutant has a reasonable potential to exceed water quality criteria because it is considered a pollutant of concern for this type of discharge and the existing Order includes water quality-based effluent limitations for this pollutant.

[3] The Regional Water Board determines data for 2,3,7,8-TCDD are for effluent characterization purposes only, not for evaluating the need for WQBELs.

[4] Dichloromethane

Waste Stream 2 (process wastewater commingled with storm water) and Waste Stream 3 (boiler blowdown) are mixed before discharge through Discharge Point 004. The Facility did not discharge combined Waste Stream 2 and Waste Stream 3 through Discharge Point 004 during the entire term of the existing Order and therefore, no data for the effluent are available for evaluating reasonable potential. However, as mentioned earlier, benzene for Waste

Stream 2, silver and cyanide for Waste Stream 3, and copper, mercury, zinc, carbon tetrachloride, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, methylene chloride, tetrachloroethylene, trichloroethylene, vinyl chloride, pentachlorophenol, 2,4,6-trichlorophenol, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, fluoranthene, hexachlorobenzene, alpha-BHC, beta-BHC, and gamma-BHC for both Waste Stream 2 and Waste Stream 3 are considered pollutants of concern and are regulated in the existing Order (No. 01-078). Based on Trigger 3 (additional information), the Regional Water Board determines these pollutants demonstrate reasonable potential to exceed water quality standards for the discharge through Discharge Point 004. Attachment J provides a summary of the effluent limitation calculations for these pollutants through Discharge Point 004. Table F-12 summarizes the applicable water quality criteria/objective for priority pollutants reported in detectable concentrations in the effluent or pollutants that were determined to show reasonable potential for the discharge of process wastewater commingled with storm water through Discharge Point 004. These criteria were used in conducting the RPA for this Order. Table F-13 summarizes the results of the RPA.

Table F-12
Applicable Water Quality Criteria
Waste Stream 2 (Process Wastewater Commingled with Storm Water)
and Waste Stream 3 (Boiler Blowdown)

CTR No.	Constituent	Selected Criteria	CTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
1	Antimony	4300.00						4300.00
2	Arsenic	36			69	36		
3	Beryllium	No Criteria						Narrative
4	Cadmium	9.36			42.25	9.36		Narrative
5a	Chromium (III)	No Criteria						Narrative
5b	Chromium (VI) or total Cr	50.35			1107.75	50.35		Narrative
6	Copper	3.7	---	---	5.8	3.7	---	---
7	Lead	8.52	---	---	220.82	8.52	---	Narrative
8	Mercury	0.051	---	---	Reserved	Reserved	---	0.051
9	Nickel	8.28	---	---	74.75	8.28	---	4600
10	Selenium	71	---	---	290.58	71.14	---	Narrative
11	Silver	2.24	---	---	2.24		---	---
12	Thallium	6.3	---	---			---	6.3
13	Zinc	86	---	---	95	86	---	---
14	Cyanide	1	---	---	1	1	---	220000
15	Asbestos	No Criteria						
16	2,3,7,8-TCDD (Dioxin)	0.00						0.00
17	Acrolein	780.00						780.00

CTR No.	Constituent	Selected Criteria	CTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
18	Acrylonitrile	0.66						0.66
19	Benzene	71						71
20	Bromoform	360						360
19	Benzene	19	---	---	---	---	---	19
21	Carbon Tetrachloride	4	---	---	---	---	---	4
22	Chlorobenzene	21000	---	---	---	---	---	21000
23	Chlordibromomethane	34	---	---	---	---	---	34
24	Chloroethane	No Criteria	---	---	---	---	---	
25	2-Chloroethylvinyl Ether	No Criteria	---	---	---	---	---	
26	Chloroform	No Criteria	---	---	---	---	---	
27	Dichlorobromomethane	46	---	---	---	---	---	46
28	1,1-Dichloroethane	No Criteria	---	---	---	---	---	
29	1,2-Dichloroethane	99	---	---	---	---	---	99
30	1,1-Dichloroethylene	3	---	---	---	---	---	3
31	1,2-Dichloropropane	39	---	---	---	---	---	39
32	1,3-Dichloropropylene	1700	---	---	---	---	---	1700
33	Ethylbenzene	29000	---	---	---	---	---	29000
34	Methyl Bromide	4000	---	---	---	---	---	4000
35	Methyl Chloride	No Criteria	---	---	---	---	---	
36	Methylene Chloride[1]	1600	---	---	---	---	---	1600
37	1,1,2,2-Tetrachloroethane	11.00	---	---	---	---	---	11
38	Tetrachloroethylene	8.9	---	---	---	---	---	9
39	Toluene	200000.00	---	---	---	---	---	200000
40	1,2-Trans-Dichloroethylene	140000.00	---	---	---	---	---	140000
41	1,1,1-Trichloroethane	No Criteria	---	---	---	---	---	
42	1,1,2-Trichloroethane	42.00	---	---	---	---	---	42
43	Trichloroethylene	81	---	---	---	---	---	81
44	Vinyl Chloride	525	---	---	---	---	---	525
45	Chlorophenol	400.0	---	---			---	400
46	2,4-Dichlorophenol	790.0	---	---			---	790
47	2,4-Dimethylphenol	2300.0	---	---			---	2300
48	2-Methyl-4,6-Dinitrophenol	765.0	---	---			---	765
49	2,4-Dinitrophenol	14000.0	---	---			---	14000
50	2-Nitrophenol	No Criteria	---	---			---	
51	4-Nitrophenol	No Criteria	---	---			---	
52	3-Methyl-4-Chlorophenol	No Criteria	---	---			---	
53	Pentachlorophenol	7.9	---	---	13	7.9	---	8

CTR No.	Constituent	Selected Criteria	CTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
54	Phenol	4600000.0	---	---			---	4600000
55	2,4,6-Trichlorophenol	6.5	---	---	---	---	---	6.50
56	Acenaphthene	2700.00	---	---	---	---	---	2700.00
57	Acenephthylene	No Criteria	---	---	---	---	---	
58	Anthracene	110000.00	---	---	---	---	---	########
59	Benzidine	0.00	---	---	---	---	---	0.00
60	Benzo(a)Anthracene	0.05	---	---	---	---	---	0.05
61	Benzo(a)Pyrene	0.05	---	---	---	---	---	0.05
62	Benzo(b)Fluoranthene	0.05	---	---	---	---	---	0.05
63	Benzo(ghi)Perylene	No Criteria	---	---	---	---	---	
64	Benzo(k)Fluoranthene	0.05	---	---	---	---	---	0.05
65	Bis(2-Chloroethoxy)Methane	No Criteria	---	---	---	---	---	
66	Bis(2-Chloroethyl)Ether	1.40	---	---	---	---	---	1.40
67	Bis(2-Chloroisopropyl)Ether	170000.00	---	---	---	---	---	########
68	Bis(2-Ethylhexyl)Phthalate	5.90	---	---	---	---	---	5.90
69	4-Bromophenyl Phenyl Ether	No Criteria	---	---	---	---	---	
70	Butylbenzyl Phthalate	5200.00	---	---	---	---	---	5200.00
71	2-Chloronaphthalene	4300.00	---	---	---	---	---	4300.00
72	4-Chlorophenyl Phenyl Ether	No Criteria	---	---	---	---	---	
73	Chrysene	0.05	---	---	---	---	---	0.05
74	Dibenzo(a,h)Anthracene	0.05	---	---	---	---	---	0.05
75	1,2-Dichlorobenzene	17000	---	---	---	---	---	17000
76	1,3-Dichlorobenzene	2600	---	---	---	---	---	2600
77	1,4-Dichlorobenzene	2600	---	---	---	---	---	2600
78	3,3'-Dichlorobenzidine	0	---	---	---	---	---	0
79	Diethyl Phthalate	120000	---	---	---	---	---	120000
80	Dimethyl Phthalate	2900000	---	---	---	---	---	2900000
81	Di-n-Butyl Phthalate	12000	---	---	---	---	---	12000
82	2,4-Dinitrotoluene	9	---	---	---	---	---	9
83	2,6-Dinitrotoluene	No Criteria	---	---	---	---	---	
84	Di-n-Octyl Phthalate	No Criteria	---	---	---	---	---	
85	1,2-Diphenylhydrazine	1	---	---	---	---	---	1
86	Fluoranthene	370	---	---	---	---	---	370
87	Fluorene	14000.00	---	---	---	---	---	14000.00
88	Hexachlorobenzene	0.00077	---	---	---	---	---	0.00077
89	Hexachlorobutadiene	50.00	---	---	---	---	---	50.00

CTR No.	Constituent	Selected Criteria	CTR Water Quality Criteria					
			Freshwater		Saltwater		Human Health for Consumption of:	
			Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
90	Hexachlorocyclopentadiene	17000.00	---	---	---	---	---	17000.00
91	Hexachloroethane	8.90	---	---	---	---	---	8.90
92	Indeno(1,2,3-cd) Pyrene	0.05	---	---	---	---	---	0.05
93	Isophorone	600.00	---	---	---	---	---	600.00
94	Naphthalene	No Criteria	---	---	---	---	---	
95	Nitrobenzene	1900.00	---	---	---	---	---	1900.00
96	N-Nitrosodimethylamine	8.10	---	---	---	---	---	8.10
97	N-Nitrosodi-n-Propylamine	1.40	---	---	---	---	---	1.40
98	N-Nitrosodiphenylamine	16.00	---	---	---	---	---	16.00
99	Phenanthrene	No Criteria	---	---	---	---	---	
100	Pyrene	11000.00	---	---	---	---	---	11000.00
101	1,2,4-Trichlorobenzene	No Criteria	---	---	---	---	---	
102	Aldrin	0.00	---	---	---	---	---	0.00
103	alpha-BHC[2]	0.013	---	---	---	---	---	0.013
104	beta-BHC[3]	0.046	---	---	---	---	---	0.046
105	gamma-BHC[4]	0.063	---	---	0.16		---	0.063

[1] Dichloromethane
[2] alpha-Hexachlorocyclohexane
[3] beta-Hexachlorocyclohexane
[4] gamma-Hexachlorocyclohexane

Table F-13
Summary of Reasonable Potential Analysis
Waste Stream 2 (Process Wastewater Commingled with Storm Water)
and Waste Stream 3 (Boiler Blowdown)

CTR No.	Constituent	Applicable Water Quality Criteria (C)	RPA Result-Need Limitation?	Reason[1]
		µg/L	µg/L	µg/L
1	Antimony	4300.00		4300.00
2	Arsenic	36	69	
3	Beryllium	No Criteria		Narrative
4	Cadmium	9.36	42.25	Narrative
5a	Chromium (III)	No Criteria		Narrative
5b	Chromium (VI) or total Cr	50.35	1107.75	Narrative
6	Copper	3.7	Yes	BPJ, Trigger 3

CTR No.	Constituent	Applicable Water Quality Criteria (C)	RPA Result- Need Limitation?	Reason[1]
		µg/L	µg/L	µg/L
7	Lead	8.52		
8	Mercury	0.051	Yes	BPJ, Trigger 3
9	Nickel	8.28		
10	Selenium	71		
11	Silver	2.24	Yes	BPJ, Trigger 3
12	Thallium	6.3		
13	Zinc	86	Yes	BPJ, Trigger 3
14	Cyanide	1	Yes	BPJ, Trigger 3
15	Asbestos	No Criteria		
16	2,3,7,8-TCDD (Dioxin)	0.00		
17	Acrolein	780.00		
18	Acrylonitrile	0.66		
19	Benzene	71		
20	Bromoform	360		
19	Benzene	19	Yes	BPJ, Trigger 3
21	Carbon Tetrachloride	4	Yes	BPJ, Trigger 3
22	Chlorobenzene	21000		
23	Chlordibromomethane	34		
24	Chloroethane	No Criteria		
25	2-Chloroethylvinyl Ether	No Criteria		
26	Chloroform	No Criteria		
27	Dichlorobromomethane	46		
28	1,1-Dichloroethane	No Criteria	No	No Criteria
29	1,2-Dichloroethane	99	Yes	BPJ, Trigger 3
30	1,1-Dichloroethylene	3	Yes	BPJ, Trigger 3
31	1,2-Dichloropropane	39		
32	1,3-Dichloropropylene	1700		
33	Ethylbenzene	29000		
34	Methyl Bromide	4000		
35	Methyl Chloride	No Criteria		
36	Methylene Chloride[2]	1600	Yes	BPJ, Trigger 3
37	1,1,2,2-Tetrachloroethane	11.00		
38	Tetrachloroethylene	8.9	Yes	BPJ, Trigger 3
39	Toluene	200000.00		
40	1,2-Trans-Dichloroethylene	140000.00		
41	1,1,1-Trichloroethane	No Criteria		
42	1,1,2-Trichloroethane	42.00		
43	Trichloroethylene	81	Yes	BPJ, Trigger 3
44	Vinyl Chloride	525	Yes	BPJ, Trigger 3
45	Chlorophenol	400.0		

CTR No.	Constituent	Applicable Water Quality Criteria (C)	RPA Result-Need Limitation?	Reason[1]
		µg/L	µg/L	µg/L
46	2,4-Dichlorophenol	790.0		
47	2,4-Dimethylphenol	2300.0		
48	2-Methyl-4,6-Dinitrophenol	765.0		
49	2,4-Dinitrophenol	14000.0		
50	2-Nitrophenol	No Criteria		
51	4-Nitrophenol	No Criteria		
52	3-Methyl-4-Chlorophenol	No Criteria		
53	Pentachlorophenol	7.9	Yes	BPJ, Trigger 3
54	Phenol	4600000.0		
55	2,4,6-Trichlorophenol	6.5	Yes	BPJ, Trigger 3
56	Acenaphthene	2700.00		
57	Acenephthylene	No Criteria		
58	Anthracene	110000.00		
59	Benzidine	0.00		
60	Benzo(a)Anthracene	0.05		
61	Benzo(a)Pyrene	0.05		
62	Benzo(b)Fluoranthene	0.05		
63	Benzo(ghi)Perylene	No Criteria		
64	Benzo(k)Fluoranthene	0.05		
65	Bis(2-Chloroethoxy)Methane	No Criteria		
66	Bis(2-Chloroethyl)Ether	1.40		
67	Bis(2-Chloroisopropyl)Ether	170000.00		
68	Bis(2-Ethylhexyl)Phthalate	5.90		
69	4-Bromophenyl Phenyl Ether	No Criteria		
70	Butylbenzyl Phthalate	5200.00		
71	2-Chloronaphthalene	4300.00		
72	4-Chlorophenyl Phenyl Ether	No Criteria		
73	Chrysene	0.05		
74	Dibenzo(a,h)Anthracene	0.05		
75	1,2-Dichlorobenzene	17000	Yes	BPJ, Trigger 3
76	1,3-Dichlorobenzene	2600	Yes	BPJ, Trigger 3
77	1,4-Dichlorobenzene	2600	Yes	BPJ, Trigger 3
78	3,3'-Dichlorobenzidine	0		
79	Diethyl Phthalate	120000		
80	Dimethyl Phthalate	2900000		

CTR No.	Constituent	Applicable Water Quality Criteria (C)	RPA Result-Need Limitation?	Reason[1]
		µg/L	µg/L	µg/L
81	Di-n-Butyl Phthalate	12000		
82	2,4-Dinitrotoluene	9		
83	2,6-Dinitrotoluene	No Criteria		
84	Di-n-Octyl Phthalate	No Criteria		
85	1,2-Diphenylhydrazine	1		
86	Fluoranthene	370	Yes	BPJ, Trigger 3
87	Fluorene	14000.00		
88	Hexachlorobenzene	0.00077	Yes	BPJ, Trigger 3
89	Hexachlorobutadiene	50.00		
90	Hexachlorocyclopentadiene	17000.00		
91	Hexachloroethane	8.90		
92	Indeno(1,2,3-cd) Pyrene	0.05		
93	Isophorone	600.00		
94	Naphthalene	No Criteria		
95	Nitrobenzene	1900.00		
96	N-Nitrosodimethylamine	8.10		
97	N-Nitrosodi-n-Propylamine	1.40		
98	N-Nitrosodiphenylamine	16.00		
99	Phenanthrene	No Criteria		
100	Pyrene	11000.00		
101	1,2,4-Trichlorobenzene	No Criteria		
102	Aldrin	0.00		
103	alpha-BHC[3]	0.013	Yes	BPJ, Trigger 3
104	beta-BHC[4]	0.046	Yes	BPJ, Trigger 3
105	gamma-BHC[5]	0.063	Yes	BPJ, Trigger 3

[1] BPJ = Best Professional Judgment; Trigger 3 = Other related information (e.g., discharge type)
[2] Dichloromethane
[3] alpha-Hexachlorocyclohexane
[4] beta-Hexachlorocyclohexane
[5] gamma-Hexachlorocyclohexane

4. WQBEL Calculations

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

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

ii. Use of a steady-state model to derive MDELs and AMELs.

iii. Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Regional Water Board.

a. WQBELs for copper, mercury, nickel, silver, zinc, methylene chloride, pentachloromethane, fluoranthene, benzo(a)anthracene, chrysene, aldrin, 4,4'- DDE and heptachlor epoxide for the discharge of Waste Stream 1 (low volume wastes) through Discharge Point 001, 002, 003, 004 and 005; and WQBELs for copper, mercury, silver, zinc, cyanide, benzene, carbon tetrachloride, 1,2-dichloroethane,1,1-dichloroethylene, methylene chloride, tetrachloroethylene, trichloroethylene, vinyl chloride, pentachlorophenol, 2,4,6-trichlorophenol, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, fluoranthene, hexachlorobenzene, alpha-BHC, beta-BHC, gamma-BHC for the discharge of Waste Stream 2 (process wastewater commingled with storm water) and Waste Stream 3 (boiler blowdown) are established following the procedure based on the steady-state model, available in Section 1.4 of the SIP.

b. In this Order, no dilution credit is assigned. In accordance with the reopener provision in Limitations and Discharge Requirements, Special Provision VI.C.1.e, this Order may be reopened upon the submission by the Discharger of adequate information to establish appropriate dilution credits or a mixing zone, as determined by the Regional Water Board.

c. WQBELs Calculation Example

For each pollutant exhibiting reasonable potential, a set of AMEL and MDEL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health. The AMEL and MDEL limitations for aquatic life and human health are compared, and the most restrictive AMEL and MDEL are selected as the WQBEL. The following demonstrates how the AMEL and MDELs were established in this Order. The tables in Attachment J summarize the development and calculation of all WQBELs for this Order using the process described below.

The following demonstrates how WQBELs were established for nickel for discharge of Waste Stream 1 through Discharge Points 001, 002, 003, 004, and 005 in this Order. The process for developing these limitations is in accordance with Section 1.4 of the SIP. Table F-14 summarizes WQBELs for discharge of Waste Stream 1 through Discharge Points 001, 002, 003, 004, and 005 and Table F-15 summarizes WQBELs for discharge of Waste Stream 2 and Waste Stream 3 through Discharge Point 004 for this Order using the process described below.

Calculation of aquatic life AMEL and MDEL for nickel:
Step 1: For each constituent requiring an effluent limit, identify the applicable water quality criteria or objective. For each criteria determine

the effluent concentration allowance (ECA) using the following steady state equation:

ECA = C + D(C-B) when C > B, and
ECA = C when C # B,

Where C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. In this Order a pH of 6.8 was used for pH-dependant criteria.
D = The dilution credit, and
B = The ambient background concentration

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

ECA = C

For nickel, the applicable water quality criteria are (reference Table F-10):

ECA_{acute}= 74.75 µg/L
$ECA_{chronic}$= 8.28 µg/L

Step 2: For each ECA based on aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

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

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

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6.

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

No. of Samples	CV	ECA Multiplier$_{acute\ 99}$	ECA Multiplier$_{chronic\ 99}$
21	0.6	0.32	0.53

LTA_{acute} = 74.75 µg/L x 0.32 = 23.88 µg/L
$LTA_{chronic}$ = 8.28 µg/L x 0.53 = 4.35 µg/L

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

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

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

LTA = 4.35 µg/L

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

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

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

AMEL multipliers are based on a 95th percentile occurrence probability, and the MDEL multipliers are based on the 99th percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

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

No. of Samples Per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$
4	0.6	3.13	1.56

$AMEL_{aquatic\ life}$ = 4.35 x 1.56 = 6.77 µg/L

$MDEL_{aquatic\ life}$ = 4.35 x 3.13 = 14 µg/L

Calculation of human health AMEL and MDEL:

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

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

For nickel:
$AMEL_{human\ health}$ = 4,600 µg/L

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of the $Multiplier_{MDEL}$ to the $Multiplier_{AMEL}$. Table 2 of the SIP

provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

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

For nickel, the following data was used to develop the $MDEL_{human\ health}$:

No. of Samples Per Month	CV	$Multiplier_{MDEL\ 99}$	$Multiplier_{AMEL\ 95}$	Ratio
4	0.60	3.11	1.55	2.01

$MDEL_{human\ health}$ = 4,600 µg/L x 2.01 = 9,253 µg/L

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health as the water-quality based effluent limit for the Order.

For nickel:

$AMEL_{aquatic\ life}$	$MDEL_{aquatic\ life}$	$AMEL_{human\ health}$	$MDEL_{human\ health}$
6.8 µg/L	14 µg/L	4,600 µg/L	9,253 µg/L

In the case of nickel, there are both aquatic life and human health criteria. The lowest (most restrictive) effluent limits for nickel are based on aquatic life and were incorporated into this Order.

Table F-14
Summary of Water Quality-based Effluent Limitations
Low Volume Wastes
Discharge Points 001, 002, 003, 004 and 005

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Copper, Total Recoverable	µg/L	2.8	5.8
Mercury, Total Recoverable	µg/L	0.051	0.1
Nickel, Total Recoverable	µg/L	6.8	14
Silver, Total Recoverable	µg/L	1.1	2.2
Zinc, Total Recoverable	µg/L	37	95
Methylene Chloride[1]	µg/L	1600	3210
Pentachlorophenol	µg/L	6.5	13
Benzo(a)Anthracene	µg/L	0.049	0.098
Chrysene	µg/L	0.049	0.098
Fluoranthene	µg/L	370	742
Aldrin	µg/L	0.00014	0.00028
4,4'-DDE	µg/L	0.00059	0.00118
Heptachlor Epoxide	µg/L	0.00011	0.00022

[1] Dichloromethane

Table F-15
Summary of Water Quality-based Effluent Limitations
Process Wastewater Commingled with Storm Water and Boiler Blowdown
Discharge Point 004

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Copper, Total Recoverable	µg/L	2.9	5.8
Mercury, Total Recoverable	µg/L	0.051	0.10
Silver, Total Recoverable	µg/L	1.1	2.2
Zinc, Total Recoverable	µg/L	47	95
Cyanide	µg/L	0.5	1.0
Benzene	µg/L	71	142
Carbon Tetrachloride	µg/L	4.4	8.8
1,2-Dichloroethane	µg/L	99	199
1,1-Dichloroethylene	µg/L	3.2	6.4
Methylene Chloride[1]	µg/L	1,600	3,210
Tetrachloroethylene	µg/L	8.9	18
Trichloroethylene	µg/L	81	62
Vinyl Chloride	µg/L	525	1053
Pentachlorophenol	µg/L	6.5	13
2,4,6-Trichlorophenol	µg/L	6.5	13
1,2-Dichlorobenzene	µg/L	17,000	34,105
1,3-Dichlorobenzene	µg/L	2,600	5,216
1,4-Dichlorobenzene	µg/L	2,600	5,216
Fluoranthene	µg/L	370	742
Hexachlorobenzene	µg/L	0.00077	0.0015
alpha-BHC[2]	µg/L	0.013	0.026
beta-BHC[3]	µg/L	0.046	0.092
gamma-BHC[4]	µg/L	0.063	0.13

[1] Dichloromethane
[2] alpha-Hexachlorocyclohexane
[3] beta-Hexachlorocyclohexane
[4] gamma-Hexachlorocyclohexane

5. WQBEL Based on Existing Permit Limitations

The existing Order contains WQBELs for pH, temperature, turbidity, settleable solids, sulfides, residual chlorine, detergent (MBAS), copper, mercury, nickel, silver, methylene chloride, pentachlorophenol, fluoranthene, and xylene for the discharge of Waste Stream 1 (low volume wastes) through Discharge Point 001, 002, 003, 004, and 005. Table F-16 shows the existing concentration limits for discharge of Waste Stream 1 through Discharge Points 001, 002, 003, 004, and 005. In addition, the existing Order contains WQBELs for Waste Stream 2 (process wastewater and storm water) and Waste Stream 3 (boiler blowdown) separately. Waste Stream 2 and Waste Stream 3 are currently combined and discharged through Discharge Point 004. The existing permit contains WQBELs for benzene for Waste Stream 2, residual chlorine, detergents (MBAS), silver,

and cyanide for Waste Stream 3, and settleable solids, copper, mercury, zinc, carbon tetrachloride, 1,1-dichloroethane, 1,2-dischloroethane, 1,1-dichloroethylene, methylene chloride, tetrachloroethylene, trichloroethylene, vinyl chloride, pentachlorophenol, 2,4,6-trichlorophenol, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, fluoranthene, hexachlorobenzene, alpha-BHC, beta-BHC, gamma-BHC, halomethanes, and xylene for both Waste Stream 2 and Waste Stream 3. Table F-17 and Table F-18 show the existing concentration limits for discharge of Waste Stream 2 and Waste Stream 3, respectively.

As discussed earlier, the Regional Water Board determines these pollutants are pollutants of concern for this type of discharge and therefore, the existing Order (No. 01-078) includes effluent limitations for these pollutants. 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. As discussed in Section IV, Rationale for Effluent Limitations and Discharge Specifications, the Regional Water Board determines the continued need for effluent limitations for these pollutants is appropriate. Therefore, effluent concentration limitations for all of the above pollutants in this Order are carried over from the existing Order (Order No. 01-078) based on BPJ. However, to be consistent with similar Orders recently issued by the Regional Water Board, the daily maximum effluent limitations for turbidity in this Order have been revised to 75 NTU. 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.

Table F-16
Summary of Existing Water Quality-based Effluent Limitations
Low Volume Wastes
Discharge Points 001, 002, 003, 004 and 005

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Conventional Pollutants			
pH	standard units	---	>6 & <9
Priority Pollutants			
Copper, Total Recoverable	µg/L	2.39	4.8
Mercury, Total Recoverable	µg/L	0.05	0.1
Nickel, Total Recoverable	µg/L	6.71	13.47
Silver, Total Recoverable	µg/L	0.95	1.9
Methylene Chloride[1]	µg/L	1,600	---
Pentachlorophenol	µg/L	8.2	---
Fluoranthene	µg/L	42	---
Non-Conventional Pollutants			
Detergent (MBAS)	mg/L	---	0.5
Residual Chlorine	mg/L	---	0.1
Sulfides	mg/L	---	1.0

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Settleable Solids	ml/L	0.1	0.3
Temperature	°F	---	100
Turbidity	NTU	50	150
Xylene	µg/L	---	10

[1] Dichloromethane

Table F-17
Summary of Existing Water Quality-based Effluent Limitations
Process Wastewater Commingled with Storm Water
Discharge Point 004

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Priority Pollutants			
Copper, Total Recoverable	µg/L	2.4	4.8
Mercury, Total Recoverable	µg/L	0.05	0.10
Zinc, Total Recoverable	µg/L	45	90
Benzene	µg/L	1.0	21
Carbon Tetrachloride	µg/L	---	0.5
1,1-Dichloroethane	µg/L	---	5
1,2-Dichloroethane	µg/L	---	0.5
1,1-Dichloroethylene	µg/L	---	6
Methylene Chloride[1]	µg/L	1600	---
Tetrachloroethylene	µg/L	---	5
Trichloroethylene	µg/L	---	5
Vinyl Chloride	µg/L	---	0.5
Pentachlorophenol	µg/L	8.2	---
2,4,6-Trichlorophenol	µg/L	1.0	---
1,2-Dichlorobenzene	µg/L	18,000	---
1,3-Dichlorobenzene	µg/L	2,600	---
1,4-Dichlorobenzene	µg/L	64	---
Fluoranthene	µg/L	42	---
Hexachlorobenzene	µg/L	0.00069	---
alpha-BHC[2]	µg/L	0.013	---
beta-BHC[3]	µg/L	0.046	---
gamma-BHC[4]	µg/L	0.062	---
Non-Conventional Pollutants			
Settleable Solids	Ml/L	0.1	0.3
Xylene	µg/L	---	10

[1] Dichloromethane
[2] alpha-Hexachlorocyclohexane
[3] beta-Hexachlorocyclohexane
[4] gamma-Hexachlorocyclohexane

Table F-18
Summary of Existing Water Quality-based Effluent Limitations
Boiler Blowdown
Discharge Point 004

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Priority Pollutants			
Copper, Total Recoverable	µg/L	2.39	4.8
Mercury, Total Recoverable	µg/L	0.05	0.10
Silver, Total Recoverable	µg/L	0.95	1.9
Zinc, Total Recoverable	µg/L	45	90
Cyanide	µg/L	0.5	1.0
Carbon Tetrachloride	µg/L	---	0.5
1,1-Dichloroethane	µg/L	---	5
1,2-Dichloroethane	µg/L	---	0.5
Methylene Chloride[1]	µg/L	1,600	---
Tetrachloroethylene	µg/L	---	5
Trichloroethylene	µg/L	---	5
Vinyl Chloride	µg/L	---	0.5
Pentachlorophenol	µg/L	8.2	---
2,4,6-Trichlorophenol	µg/L	1.0	---
1,2-Dichlorobenzene	µg/L	18,000	
1,3-Dichlorobenzene	µg/L	2,600	
1,4-Dichlorobenzene	µg/L	64	
Fluoranthene	µg/L	42	
Hexachlorobenzene	µg/L	0.00069	
alpha-BHC[2]	µg/L	0.013	
beta-BHC[3]	µg/L	0.046	
gamma-BHC[4]	µg/L	0.062	
Non-Conventional Pollutants			
Chlorine, Residual	Mg/L	---	0.10
Detergent (MBAS)	Mg/L	---	0.50
Halomethanes	µg/L	480	---
Settleable Solids	ml/L	0.1	0.3
Temperature	°F	---	100
Xylene	µg/L	---	10

1 Dichloromethane
2 alpha-Hexachlorocyclohexane
3 beta-Hexachlorocyclohexane
4 gamma-Hexachlorocyclohexane

6. WQBEL Based on Basin Plan and Thermal Plan

The Basin Plan states that the pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharge. Based on the requirements of the Basin Plan an instantaneous minimum limitation of

6.5 and an instantaneous maximum limitation of 8.5 for pH are included in this Order.

The Basin Plan lists temperature requirements for the receiving waters and references the Thermal Plan. Based on the requirements of the Thermal Plan and a white paper developed by Regional Water Board staff entitled Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region, a maximum effluent temperature limitation of 86 °F is included in this Order. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. The new temperature effluent limitation 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.

7. Final WQBELs

For each pollutant the selected concentration WQBEL is the most stringent of the WQBELs discussed in Section IV.C.4, Section IV.C.5, and Section IV.C.6. Further, concentration-based effluent limitations are established as the most stringent value of either the existing effluent limitations (contained in Order No. 01-078) or the WQBELs developed based on CTR criteria and SIP requirements. Summaries of the final WQBELs for discharge of Waste Stream 1 (low volume wastes) through Discharge Points 001, 002, 003, 004 and 005 are shown in Table F-19. The mass-based limitations for discharge of Waste Stream 1 are based on a flow of 0.045 MGD. Table F-20 summarizes the final WQBELs for discharge of process wastewater commingled with storm water and boiler blowdown through Discharge Point 004. The mass-based limitations for the discharge of Waste Stream 2 (process wastewater commingled with storm water) and Waste Stream 3 (boiler blowdown) are based on a flow 4.4 MGD.

Table F-19
Summary of Final Water Quality-based Effluent Limitations
Low Volume Wastes
Discharge Points 001, 002, 003, 004 and 005

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
pH	standard units	---	---	6.5	8.5
Priority Pollutants					
Copper, Total Recoverable	µg/L	2.4	4.8	---	---
	lbs/day[1]	0.0009	0.0018	---	---
Mercury, Total Recoverable	µg/L	0.05	0.1	---	---
	lbs/day[1]	0.000019	0.000038	---	---
Nickel, Total Recoverable	µg/L	6.7	13	---	---
	lbs/day[1]	0.0025	0.0051	---	---
Silver, Total Recoverable	µg/L	0.95	1.9	---	---
	lbs/day[1]	0.00036	0.00071	---	---
Zinc, Total Recoverable	µg/L	37	95	---	---
	lbs/day[1]	0.014	0.036	---	---
Methylene Chloride[2]	µg/L	1,600	3,210	---	---
	lbs/day[1]	0.60	1.2	---	---
Pentachlorophenol	µg/L	6.5	13	---	---
	lbs/day[1]	0.0024	0.0049	---	---
Benzo(a)Anthracene	µg/L	0.049	0.098	---	---
	lbs/day[1]	0.000018	0.000037	---	---
Chrysene	µg/L	0.049	0.098	---	---
	lbs/day[1]	0.000018	0.000037	---	---
Fluoranthene	µg/L	42	742	---	---
	lbs/day[1]	0.016	0.28	---	---
Aldrin	µg/L	0.00014	0.00028	---	---
	lbs/day[1]	0.000000053	0.00000011	---	---
4,4'-DDE	µg/L	0.00059	0.00118	---	---
	lbs/day[1]	0.00000022	0.00000044	---	---
Heptachlor Epoxide	µg/L	0.00011	0.00022	---	---
	lbs/day[1]	0.000000041	0.000000083	---	---
Non-Conventional Pollutants					
Detergent (MBAS)	mg/L	---	0.5	---	---
	lbs/day[1]	---	0.19	---	---
Residual Chlorine	mg/L	---	0.1	---	---
	lbs/day[1]	---	0.038	---	---
Sulfides	mg/L	---	1.0	---	---
	lbs/day[1]	---	0.38	---	---
Settleable Solids	ml/L	0.1	---	---	---
Temperature	°F	---	86	---	---

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Turbidity	NTU	50	75	---	---
Xylene	µg/L	---	10	---	---
	lbs/day[1]	---	0.0038	---	---

[1] Based on a flow of 0.045 MGD

[2] Dichloromethane

Table F-20
Summary of Final Water Quality-based Effluent Limitations
Process Wastewater Commingled with Storm Water and Boiler Blowdown
Discharge Point 004

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
pH	standard units	---	---	6.5	8.5
Priority Pollutants					
Copper, Total Recoverable	µg/L	2.4	4.8	---	---
	lbs/day[1]	0.086	0.17	---	---
Mercury, Total Recoverable	µg/L	0.05	0.10	---	---
	lbs/day[1]	0.0018	0.0036	---	---
Silver, Total Recoverable	µg/L	0.95	1.9	---	---
	lbs/day[1]	0.034	0.068	---	---
Zinc, Total Recoverable	µg/L	45	90	---	---
	lbs/day[1]	1.6	3.2	---	---
Cyanide	µg/L	0.5	1.0	---	---
	lbs/day[1]	0.018	0.036	---	---
Benzene	µg/L	1.0	21	---	---
	lbs/day[1]	0.036	0.76	---	---
Carbon Tetrachloride	µg/L	---	0.5	---	---
	lbs/day[1]	---	0.018	---	---
1,1-Dichloroethane	µg/L	---	5	---	---
	lbs/day[1]	---	0.18	---	---
1,2-Dichloroethane	µg/L	---	0.5	---	---
	lbs/day[1]	---	0.018	---	---
1,1-Dichloroethylene	µg/L	3.2	6	---	---
	lbs/day[1]	0.12	0.22	---	---
Methylene Chloride[2]	µg/L	1600	3210	---	---
	lbs/day[1]	58	116	---	---
Tetrachloroethylene	µg/L	---	5	---	---
	lbs/day[1]	---	0.18	---	---
Trichloroethylene	µg/L	---	5	---	---
	lbs/day[1]	---	0.18	---	---

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Vinyl Chloride	µg/L	---	0.5	---	---
	lbs/day[1]	---	0.018	---	---
Pentachlorophenol	µg/L	6.5	13	---	---
	lbs/day[1]	0.23	0.47	---	---
2,4,6-Trichlorophenol	µg/L	1.0	---	---	---
	lbs/day[1]	0.036	---	---	---
1,2-Dichlorobenzene	µg/L	17,000	34,105	---	---
	lbs/day[1]	612	1229	---	---
1,3-Dichlorobenzene	µg/L	2,600	5216	---	---
	lbs/day[1]	94	188	---	---
1,4-Dichlorobenzene	µg/L	64	5216	---	---
	lbs/day[1]	2.3	188	---	---
Fluoranthene	µg/L	42	742	---	---
	lbs/day[1]	1.5	27	---	---
Hexachlorobenzene	µg/L	0.00069	0.0015	---	---
	lbs/day[1]	0.000025	0.000054	---	---
alpha-BHC[3]	µg/L	0.013	0.026	---	---
	lbs/day[1]	0.00047	0.00094	---	---
beta-BHC[4]	µg/L	0.046	0.092	---	---
	lbs/day[1]	0.0017	0.0033	---	---
gamma-BHC[5]	µg/L	0.062	0.13	---	---
	lbs/day[1]	0.0022	0.0047	---	---
Non-Conventional Pollutants					
Chlorine, Residual	mg/L	---	0.10	---	---
	lbs/day[1]	---	3.6	---	---
Detergent (MBAS)	mg/L	---	0.50	---	---
	lbs/day[1]	---	18	---	---
Halomethanes	µg/L	480	---	---	---
	lbs/day[1]	17	---	---	---
Settleable Solids	ml/L	0.1	0.3	---	---
Temperature	°F	---	86	---	---
Xylene	µg/L	---	10	---	---
	lbs/day[1]	---	0.36	---	---

[1] Based on a flow of 4.4 MGD
[2] Dichloromethane
[3] alpha-Hexachlorocyclohexane
[4] beta-Hexachlorocyclohexane
[5] gamma-Hexachlorocyclohexane

8 Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion or 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 existing Order includes both acute and chronic toxicity limitations.

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. This Order includes acute toxicity limitations and monitoring requirements in accordance with the Basin Plan, in which the acute toxicity objective for discharges dictates 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. If the acute toxicity effluent limitations are exceeded, the Discharger is required to immediately implement accelerated monitoring frequency in accordance with Section V of the MRP, Attachment E.

No process wastewater was discharged in the permit cycle. Only low volume streams (with a maximum permitted flow of 45,000gpd) was discharged intermittently on an average of two to three discharges per year. Duration of each discharge was less than 24 hours. Therefore, no chronic toxicity monitoring is specified.

D. Final Effluent Limitations

The final effluent limitations for discharge of Waste Stream 1 (low volume wastes) through Discharge Points 001, 002, 003, 004, and 005 and discharge of Waste Stream 2 (process wastewater commingled with storm water) and Waste Stream 3 (boiler blowdown) through Discharge Point 004 are summarized in Table F-21 and F-22, respectively. For each pollutant, the selected final effluent concentration limitation is the more stringent of the technology-based effluent limitation, available in Tables F-8 and F-9, and the WQBELs, available in Tables F-19 and F-20. Toxicity requirements are based on the discussion in Section IV.C.7.

For discharge of Waste Stream 1, the final effluent limitations for BOD, oil and grease, TSS, copper, mercury, nickel, silver, methylene chloride (AMEL), fluoranthene (AMEL), detergents (MBAS), residual chlorine, sulfides, settleable solids, turbidity, and xylene in this Order are the same as those in the existing Order. However, as discussed earlier, to be consistent with similar Orders recently issued by the Regional Water Board, the MDELs for TSS and turbidity in this Order have been revised to 75 mg/L and 75 NTU, respectively. In addition, this Order also includes new WQBELs for zinc, methylene chloride (MDEL), pentachlorophenol, benzo(a)anthracene, chrysene, fluoranthene (MDEL), aldrin, 4,4'-DDE and heptachlor epoxide that are developed based on CTR criteria and SIP requirements. The effluent limitations for pH and temperature in this Order are revised based on the Basin Plan and the Thermal Plan.

As mentioned earlier, the current method of disposal of Waste Stream 2 and Waste Stream 3 is different from those in the existing Order. Under the existing Order No. 01-078, Waste Stream 2 used to discharge through Discharge Point 002 while Waste Stream 3 used to discharge through Discharge Point 003 to the Dominguez Channel. Currently, Waste Stream 2 is mixed with Waste Stream 3 and the combined wastewater and storm

water is discharged through Discharge Point 004. As a result, new sets of effluent limitations are developed for the discharge of combined wastewater and storm water through Discharge Point 004. As discussed in more detail in Sections IV.B and IV.C, the effluent limitations are based on effluent limitations in the existing Order, 40 CFR § 419.30, BPJ, Basin Plan, CTR, Thermal Plan and the information submitted by the Discharger. Unlike the existing Order, only one set of effluent limitations are established for the Discharge Point 004. Mass-based effluent limitations are established for BOD, TSS, COD, oil and grease, ammonia, sulfides, phenolic compounds, total chromium, and chromium VI. The limitations of the above pollutants are revised based on the new information submitted by the Discharger. The final concentration based effluent limitations for copper, mercury, zinc, carbon tetrachloride, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene (MDEL), methylene chloride (AMEL), tetrachloroethylene, trichloroethylene, vinyl chloride, 2,4,6-trichlorophenol, 1,3-dichlorobenzene (AMEL), 1,4-dichlorobenzene (AMEL), fluoranthene (AMEL), hexachlorobenzene (AMEL), alpha-BHC (AMEL), beta-BHC (AMEL) gamma-BHC (AMEL), detergents (MBAS), halomethanes, settleable solids, and xylene in this Order are the same as those in the existing Order. The concentration based effluent limitation for silver and cyanide in this Order are the same as those in the existing Order for boiler blowdown. Similarly, the concentration based effluent limitation for benzene in this Order are the same as those in the existing Order for process wastewater and storm water. In addition, new effluent limitations are established for 1,1-dichloroethylene (AMEL), methylene chloride (MDEL), pentachlorophenol, 1,2-dichlorobenzene, 1,3-dichlorobenzene (MDEL), 1,4-dichlorobenzene (MDEL), fluoranthene (MDEL), hexachlorobenzene (MDEL), alpha-BHC (MDEL), beta-BHC (MDEL) gamma-BHC (MDEL). The effluent limitations for pH and temperature in this Order are revised based on the Basin Plan and the Thermal Plan.

Table F-21

Summary of Final Effluent Limitations
Low Volume Wastes
Discharge Points 001, 002, 003, 004 and 005

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
Biochemical Oxygen Demand 5-day @ 20°C (BOD)	mg/L	20	30	---	---	E
	lbs/day[2]	7.5	11	---	---	
Oil and Grease	mg/L	10	15	---	---	E
	lbs/day[2]	3.8	5.6	---	---	
pH	standard units	---	---	6.5	8.5	BP
Total Suspended Solids (TSS)	mg/L	50	75	---	---	E, BPJ
	lbs/day[2]	19	28	---	---	
Priority Pollutants						
Copper, Total Recoverable	µg/L	2.4	4.8	---	---	E
	lbs/day[2]	0.0009	0.0018	---	---	
Mercury, Total Recoverable	µg/L	0.05	0.1	---	---	E
	lbs/day[2]	0.000019	0.000038	---	---	
Nickel, Total Recoverable	µg/L	6.7	13	---	---	E
	lbs/day[2]	0.0025	0.0051	---	---	
Silver, Total Recoverable	µg/L	0.95	1.9	---	---	E
	lbs/day[2]	0.00036	0.00071	---	---	
Zinc, Total Recoverable	µg/L	37	95	---	---	CTR, SIP
	lbs/day[2]	0.014	0.036	---	---	
Methylene Chloride[3]	µg/L	1,600	3,210	---	---	CTR, SIP
	lbs/day[2]	0.60	1.2	---	---	
Pentachlorophenol	µg/L	6.5	13	---	---	CTR, SIP
	lbs/day[2]	0.0024	0.0049	---	---	
Benzo(a)Anthracene	µg/L	0.049	0.098	---	---	CTR, SIP
	lbs/day[2]	0.000018	0.000037	---	---	
Chrysene	µg/L	0.049	0.098	---	---	CTR, SIP
	lbs/day[2]	0.000018	0.000037	---	---	

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Fluoranthene	µg/L	42	742	---	---	E, CTR, SIP
	lbs/day[2]	0.016	0.28	---	---	
Aldrin	µg/L	0.00014	0.00028	---	---	CTR, SIP
	lbs/day[2]	5.3×10^{-8}	11×10^{-8}	---	---	
4,4'-DDE	µg/L	0.00059	0.00118	---	---	CTR, SIP
	lbs/day[2]	2.2×10^{-7}	4.4×10^{-7}	---	---	
Heptachlor Epoxide	µg/L	0.00011	0.00022	---	---	CTR, SIP
	lbs/day[2]	4.1×10^{-8}	8.3×10^{-8}	---	---	
Non-Conventional Pollutants						
Detergent (MBAS)	µg/L	---	0.5	---	---	E
	lbs/day[2]	---	0.19	---	---	
Residual Chlorine	µg/L	---	0.1	---	---	E
	lbs/day[2]	---	0.038	---	---	
Sulfides	µg/L	---	1.0	---	---	E
	lbs/day[2]	---	0.38	---	---	
Settleable Solids	ml/L	0.1	0.3	---	---	E
Temperature	°F	---	86	---	---	BP, TP
Turbidity	NTU	50	75	---	---	E, BPJ
Xylene	µg/L	---	10	---	---	E
	lbs/day[2]	---	0.0038	---	---	

[1] BP = Basin Plan, BPJ = Best Professional Judgment, E= limitations in existing Order; CTR = California Toxics Rule, SIP = State Implementation Plan, TP = Thermal Plan
[2] Based on a flow of 0.045 MGD
[3] Dichloromethane

Table F-22
Summary of Final Effluent Limitations
Process Wastewater Commingled with Storm Water and Boiler Blowdown
Discharge Point 004

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
Biochemical Oxygen Demand 5-day @ 20°C (BOD)	mg/L	20	30			BPJ
	lbs/day	733	1099	---	---	
Oil and Grease	mg/L	10	15			BPJ
	lbs/day	366	550	---	---	
pH	standard units	---	---	6.5	8.5	BP
Total Suspended Solids (TSS)	mg/L	50	75			BPJ
	lbs/day	1,833	2,745	---	---	
Priority Pollutants						
Chromium (VI)	µg/L	46	106			BPT/BAT
	lbs/day	1.7	3.9	---	---	
Copper, Total Recoverable	µg/L	2.4	4.8	---	---	E
	lbs/day[2]	0.086	0.17	---	---	
Mercury, Total Recoverable	µg/L	0.05	0.10	---	---	E
	lbs/day[2]	0.0018	0.0036	---	---	
Silver, Total Recoverable	µg/L	0.95	1.9	---	---	E, BPJ
	lbs/day[2]	0.034	0.068	---	---	
Zinc, Total Recoverable	µg/L	45	90	---	---	E
	lbs/day[2]	1.6	3.2	---	---	
Cyanide	µg/L	0.5	1.0	---	---	E, CTR, SIP
	lbs/day[2]	0.018	0.036	---	---	
Benzene	µg/L	1.0	21	---	---	E, BPJ
	lbs/day[2]	0.036	0.76	---	---	
Carbon Tetrachloride	µg/L	---	0.5	---	---	E
	lbs/day[2]	---	0.018	---	---	
1,1-Dichloroethane	µg/L	---	5	---	---	E
	lbs/day[2]	---	0.18	---	---	

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
1,2-Dichloroethane	µg/L	---	0.5	---	---	E
	lbs/day[2]	---	0.018	---	---	
1,1-Dichloroethylene	µg/L	3.2	6	---	---	E, CTR, SIP
	lbs/day[2]	0.12	0.22	---	---	
Methylene Chloride[3]	µg/L	1600	3210	---	---	E, CTR, SIP
	lbs/day[2]	58	116	---	---	
Tetrachloroethylene	µg/L	---	5	---	---	E
	lbs/day[2]	---	0.18	---	---	
Trichloroethylene	µg/L	---	5	---	---	E
	lbs/day[2]	---	0.18	---	---	
Vinyl Chloride	µg/L	---	0.5	---	---	E
	lbs/day[2]	---	0.018	---	---	
Pentachlorophenol	µg/L	6.5	13	---	---	CTR, SIP
	lbs/day[2]	0.23	0.47	---	---	
2,4,6-Trichlorophenol	µg/L	1.0	---	---	---	E
	lbs/day[2]	0.036	---	---	---	
1,2-Dichlorobenzene	µg/L	17,000	34,105	---	---	CTR, SIP
	lbs/day[2]	612	1,229	---	---	
1,3-Dichlorobenzene	µg/L	2,600	5,216	---	---	E, CTR, SIP
	lbs/day[2]	94	188	---	---	
1,4-Dichlorobenzene	µg/L	64	5,216	---	---	E, CTR, SIP
	lbs/day[2]	2.3	188	---	---	
Fluoranthene	µg/L	42	742	---	---	E, CTR, SIP
	lbs/day[2]	1.5	27	---	---	
Hexachlorobenzene	µg/L	0.00069	0.0015	---	---	E, CTR, SIP
	lbs/day[2]	0.000025	0.000054	---	---	
alpha-BHC[4]	µg/L	0.013	0.026	---	---	E, CTR, SIP
	lbs/day[2]	0.00047	0.00094	---	---	
beta-BHC[5]	µg/L	0.046	0.092	---	---	E, CTR, SIP
	lbs/day[2]	0.0017	0.0033	---	---	
gamma-BHC[6]	µg/L	0.062	0.13	---	---	E, CTR, SIP

Parameter	Units	Effluent Limitations				Basis[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
	lbs/day[2]	0.0022	0.0047	---	---	
Non-Conventional Pollutants						
Ammonia as N	mg/L	0.035[7]	0.233[7]			BP
	lbs/day	1.3	8.6	---	---	
Chemical Oxygen Demand (COD)	mg/L	80	120			BPJ
	lbs/day	2,932	4,398	---	---	
Chlorine, Total Residual	mg/L	---	0.10	---	---	E
	lbs/day[2]	---	3.6	---	---	
Chromium, Total	µg/L	548	1066			BAT
	lbs/day	18	51	---	---	
Detergents (MBAS)	mg/L	---	0.50	---	---	E
	lbs/day[2]	---	18	---	---	
Halomethanes	µg/L	480	---	---	---	E
	lbs/day[2]	17	---	---	---	
Phenols (4AAP)	µg/L					BPT/BAT
	lbs/day	15	44	---	---	
Settleable Solids	ml/L	0.1	0.3	---	---	E
Sulfides	mg/L					BPT/BAT
	lbs/day	14	33	---	---	
Temperature	°F	---	86	---	---	BP, TP
Xylene	µg/L	---	10	---	---	E
	lbs/day[2]	---	0.36	---	---	

[1] BP = Basin Plan, E= limitations in Existing Order; BPJ = Best Professional Judgment, CTR = California Toxics Rule, SIP = State Implementation Plan, TP = Thermal Plan;
BPT, BAT and BCT = BPT, BAT and BCT effluent limitations in 40 CFR §§ 419.32, 419.33, and 419.34

[2] Based on a flow of 4.32 MGD

[3] Dichloromethane

[4] alpha-Hexachlorocyclohexane

[5] beta-Hexachlorocyclohexane

[6] gamma-Hexachlorocyclohexane

[7] Based on Basin Plan Amendment – Salt Water Ammonia Objectives for Inland Surface Waters (Regional Board Resolution No. 2004-022). The four day average concentration of un-ionized ammonia shall not exceed 0.035 mg/l and one hour average

concentration shall not exceed 0.233 mg/L. The un-ionized ammonia concentration must be converted to total ammonia using the implementation procedure in the Regional Board Resolution

E. Interim Effluent Limitations

A review of available effluent monitoring data submitted by the Discharger indicates that the Discharger will be unable to consistently comply with the final effluent limitations established in this Order for zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE and heptachlor epoxide for discharges of low volume wastes through Discharge Points 001, 002, 003, 004 and 005. As a result, this Order contains interim limitations for these parameters and a compliance schedule that allows the Discharger up to June 30, 2009, to comply with the revised effluent limitations. Within 1 year after the effective date of the Order, the Discharger must prepare and submit a compliance plan that describes the steps that will be taken to ensure compliance with applicable limitations.

40 CFR §131.38(e) provides conditions under which interim effluent limitations and compliance schedules may be issued. The SIP allows inclusion of interim limitations with a specific compliance schedule included in an NPDES permit for priority pollutants if the limitations for the priority pollutant are CTR-based. Because the CTR-based effluent limitations for zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE and heptachlor epoxide for the discharge of low volume wastes through Discharge Points 001, 002, 003, 004 and 005 are infeasible for the Discharger to achieve at this time, interim limitations for these pollutants are contained in this Order.

Pursuant to the SIP (Section 2.2.1, Interim Requirements under a Compliance Schedule), when compliance schedules established in an Order exceed 1 year, then numeric interim limitations must be included based on current treatment facility performance or existing Order limitations, whichever is more stringent, to maintain existing water quality. The Regional Water Board has determined that the MEC of the pollutants shall serve as a basis for the interim limitation for the pollutants for the discharge of low volume wastes through Discharge Points 001, 002, 003, 004 and 005. The Regional Water Board may take appropriate enforcement actions if interim limitations and requirements are not met.

The interim effluent limitations are valid for the period beginning April 1, 2007, and ending on June 30, 2009. From the effective date of this Order until June 30, 2009, the discharge of low volume wastes through Discharge Points 001, 002, 003, 004 and 005 in excess of the following concentration is prohibited:

Table F-23
Interim Effluent Limitations
Waste Stream 1 (Low Volume Wastes)

Parameter	Units	Maximum Daily
Zinc, Total Recoverable	µg/L	90
Benzo(a)Anthracene	µg/L	0.39
Chrysene	µg/L	1.0
Aldrin	µg/L	0.0071
4,4'-DDE	µg/L	0.031
Heptachlor Epoxide	µg/L	0.009

The SIP requires that the Regional Water 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 the final effluent limitations. These interim limitations shall be effective until June 30, 2009, after which, the Discharger shall demonstrate compliance with the final effluent limitations.

No interim limitations are established for discharges of process wastewater mixed with stormwater and boiler blowdown.

F. Land Discharge Specifications – Not Applicable

G. Reclamation Specifications – Not Applicable

V. Rationale for Receiving Water Limitations

A. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. 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 Basin Plan.

B. Groundwater

The receiving water limitations for groundwater in this Order are based upon the water quality objectives contained in the Basin Plan.

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 California Water Code authorize the Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program, 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 Monitoring and Reporting Program for this facility.

A. Influent Monitoring – Not Applicable

B. Effluent Monitoring

Monitoring for those pollutants expected to be present in the discharge of Waste Stream 1 (low volume wastes) through Monitoring Locations M-001, M-002, M-003, M-004 and M-005 at Discharge Points 001, 002, 003, 004, and 005, respectively, and in the discharge of process wastewater commingled with storm water and boiler blowdown through Monitoring Location M-004 at Discharge Point 004 will be required as shown in the MRP (Attachment E) of this Order. To determine compliance with the effluent limitations for the discharge of low volume wastes through Monitoring Locations M-001, M-002, M-003, M-004 and M-005 at Discharge Points 001, 002, 003, 004, and 005, respectively, the

monitoring plan requires monitoring for BOD, oil and grease, pH, TSS, copper, mercury, nickel, silver, methylene chloride, pentachlorophenol, benzo(a)anthracene, chrysene, fluoranthene, aldrin, 4,4'-DDE, heptachlor epoxide, detergents (MBAS), flow, residual chlorine, settleable solids, sulfides, temperature, toxicity, turbidity, and xylene. Similarly, to determine compliance with the effluent limitations for the discharge of process wastewater commingled with storm water and boiler blowdown through Monitoring Location M-004 at Discharge Point 004 the monitoring plan requires monitoring for BOD, TSS, oil and grease, pH, chromium (VI), copper, mercury, silver, zinc, cyanide, benzene, carbon tetrachloride, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, methylene chloride, tetrachloroethylene, trichloroethylene, vinyl chloride, pentachlorophenol, 2,4,6-trichlorophenol, 1,2-dichlorobenzene, 1,3-dischlorobenzene, 1,4-dichlorobenzene, fluoranthene, hexachlorobenzene, alpha-BHC, beta-BHC, gamma-BHC, ammonia, COD, chlorine (residual), chromium (total), detergents (MBAS), halomethanes, phenols, settleable solids, sulfides temperature, and xylene.

The Discharger is required to monitor the effluent for the CTR priority pollutants, to determine reasonable potential. Accordingly, annual monitoring is required to characterize the discharge for future analysis. The requirement to monitor other pollutants listed in Section IV.A of the MRP, Attachment E, in this Order is carried forward from existing Order No. 01-078.

The monitoring frequencies of the pollutants in the existing Order for low volume wastes are revised in this Order. Because the discharge of low volume wastes through Discharge Points 001, 002, 003, 004 and 005 and the discharge of process wastewater commingled with storm water and boiler blowdown through Discharge Point 004 will occur intermittently, this Order requires that the monitoring for the pollutants are performed once per discharge event.

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. Acute toxicity testing requirements are included in the MRP (Attachment E) to determine compliance with the requirements established in Limitations and Discharge Requirements, Effluent Limitations, Sections IV.A of this Order.

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 of this Order. Monitoring for temperature, pH, ammonia, nitrate and dissolved oxygen in the receiving water is included in this Order to determine that the discharge does not cause the concentrations of these pollutants to violate the receiving water quality objectives. The Facility is also 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.

The Discharger is required to monitor the upstream receiving water for the CTR priority pollutants, and to determine reasonable potential. The Regional Water Board is requiring that the Discharger conduct upstream receiving water monitoring of the CTR priority pollutants at Monitoring Locations R-001A, R-002A, R-003A, R-004A and R-005A. The Discharger must also analyze temperature, pH, and hardness of the upstream receiving water (Dominguez Channel) at the same time the samples are collected for priority pollutants analysis.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements

VII. Rationale for Provisions

A. Standard 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 to the Order.

B. Special Provisions

1. Reopener Provisions

These provisions are based on 40 CFR Part 123 and the existing Order. The Regional Water Board may reopen the Order to modify conditions and requirements in the Order. 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. Toxicity Identification Evaluations or Toxicity Reduction Evaluations. This provision is based on the SIP, Section 4, Toxicity Control Provisions, which establishes minimum toxicity control requirements for implementing the narrative toxicity objective for aquatic life protection established in the basin plans of the State of California.

b. Receiving Water Biomonitoring Workplan. This provision is carried over from the existing Order to monitor the effect of the discharge on aquatic organisms.

3. Best Management Practices and Pollution Prevention

The objective of this Order is to protect the beneficial uses of receiving waters. To meet this objective, the Order requires the Discharger to develop and implement an updated SWPPP and address storm water runoff to the storm drain which discharges to the Dominguez Channel. This is consistent with the SWPPP requirements in the

NPDES General Permit for Storm Water Discharges Associated with Industrial Activity (State Water Board Order No. 97-03-DWQ, NPDES Permit No. CAS000001). A SWPPP outlines site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into surface waters. Storm water discharges occur at the Facility and best management practices are identified as one method to reduce contamination of storm water.

The Discharger uses, stores, handles and disposes of materials, chemicals, and wastes at the facility, and conducts operational and maintenance activities to its facility and equipment that are potential or existing sources of pollutants in wastewater discharged from the facility to the receiving water. In addition, this Order prohibits the Discharger from causing or threatening to cause a pollution or nuisance and degrading groundwater. Therefore, this Order requires the Discharger to develop and implement an updated BMPP that includes site-specific plans, procedures, and practices to minimize the amount of pollutants entering wastewater discharges from materials being stored and activities being conducted throughout the entire facility. To ensure the Discharger considers and implements appropriate and effective BMPs, the discharger is required to consider implementing BMPs contained in the U.S. EPA Guidance Manual for Developing Best Management Practices (BMPs) (EPA 833-B-93-004) or equivalent alternatives when developing its BMPP.

The Order also requires the Discharger to develop and implement a Spill Contingency Plan to control discharge of pollutants. This provision is included in this Order to minimize and control the amount of pollutants discharged in case of a spill. This will ensure compliance with the Order and protect the beneficial uses of the receiving water.

According to the SIP, pollution prevention measures may be particularly appropriate for priority pollutants where there is evidence that beneficial uses are being impacted. Because the RPA for the discharge of low volume wastes indicated benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE, and heptachlor epoxide could exceed the applicable criteria, the Discharger is required to develop and implement a PMP for the pollutants. Described in detail in Section 2.4.5.1 of the SIP, pollution minimization includes: monitoring for potential sources of the pollutants, periodic monitoring, control strategy, control measure implementation, and an annual status report sent to the Regional Water Board.

4. Compliance Schedules

This provision is based on the SIP, Section 2.1, Compliance Schedules. This Order establishes new final effluent limitations for zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE, and heptachlor epoxide for the discharge of low volume wastes through Discharge Points 001, 002, 003, 004, and 005. A review of available effluent monitoring data submitted by the Discharger indicates that the Discharger will be unable to comply with the final effluent limitations established in this Order for zinc, benzo(a)anthracene, chrysene, aldrin, 4,4'-DDE, and heptachlor epoxide. As a result, interim limitations and compliance schedules have been prescribed for these pollutants. The compliance schedule in this Order provides the Discharger until June 30, 2009, to bring the Facility into compliance with the newly established final limitations.

5. Construction, Operation, and Maintenance Specifications

   This provision is based on the requirements of 40 CFR §122.41(e). Proper operation and maintenance of facilities and systems is required to limit the discharge of pollutants through mismanagement and operation.

6. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

7. Other Special Provisions – Not Applicable

VIII. Public Participation

The Regional Water Board is considering the issuance of WDRs that will serve as a NPDES permit for BP Carson Refinery. As a step in the WDR adoption process, the Regional Water Board staff has developed these 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 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.

Written comments regarding this tentative Order must be submitted to the Regional Board staff no later than 5:00 p.m. on February 22, 2007, in order to be evaluated by Board staff and included in the Board's agenda folder. The Regional Board Chair may exclude from the record written materials received after this date. (See Cal. Code Regs., tit. 23, §648.4).

C. Public Hearing

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

Date:	March 1, 2007
Time:	9:00 A.M.
Location:	Metropolitan Water District of Southern California 700 North Alameda Street, 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 Order. 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 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
Office of the Chief Counsel
ATTN: Elizabeth Miller Jennings, Senior Staff Counsel
1001 I Street, 22nd Floor
Sacramento, CA 95814

E. Information and Copying

The Report of Waste Discharge, related documents, effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the 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.

ATTACHMENT G – STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS

SECTION A: STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. Implementation Schedule

   A storm water pollution prevention plan (SWPPP) shall be developed and implemented for each facility covered by this General Permit in accordance with the following schedule.

   a. Facility operators beginning industrial activities before October 1, 1992 shall develop and implement the SWPPP no later than October 1, 1992. Facility operators beginning industrial activities after October 1, 1992 shall develop and implement the SWPPP when industrial activities begin.

   b. Existing facility operators that submitted a Notice of Intent (NOI), pursuant to State Water Resources Control Board (State Water Board) Order No. 91-013-DWQ (as amended by Order No. 92-12) or San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Order No. 92-11 (as amended by Order No. 92-116), shall continue to implement their existing SWPPP and shall implement any necessary revisions to their SWPPP in a timely manner, but in no case later than August 1, 1997.

2. Objectives

   The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, over-head coverage.) To achieve these objectives, facility operators should consider the five phase process for SWPPP development and implementation as shown in Table A.

   The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.

   A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

3. Planning and Organization

a. Pollution Prevention Team

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in Section B of this General Permit. The SWPPP shall clearly identify the General Permit related responsibilities, duties, and activities of each team member. For small facilities, storm water pollution prevention teams may consist of one individual where appropriate.

b. Review Other Requirements and Existing Facility Plans

The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this General Permit. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this General Permit. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

4. Site Map

The SWPPP shall include a site map. The site map shall be provided on an 8-½ x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

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

PLANNING AND ORGANIZATION
Form Pollution Prevention Team Review other plans

ASSESSMENT PHASE
Develop a site map Identify potential pollutant sources Inventory of materials and chemicals List significant spills and leaks Identify non-storm water discharges Assess pollutant Risks

BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE

Non-structural BMPs
Structural BMPs
Select activity and site-specific BMPs

IMPLEMENTATION PHASE

Train employees
Implement BMPs
Conduct recordkeeping and reporting

EVALUATION / MONITORING

Conduct annual site evaluation
Review monitoring information
Evaluate BMPs
Review and revise SWPPP

The following information shall be included on the site map:

a. The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, and ponds) and municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.

b. The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.

c. An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.

d. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in Section A.6.a.iv. below have occurred.

e. Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

5. List of Significant Materials

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, describe the locations where the material is being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

6. Description of Potential Pollutant Sources

a. The SWPPP shall include a narrative description of the facility's industrial activities, as identified in Section A.4.e above, associated potential pollutant sources, and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. At a minimum, the following items related to a facility's industrial activities shall be considered:

i. Industrial Processes

Describe each industrial process, the type, characteristics, and quantity of significant materials used in or resulting from the process, and a description of the manufacturing, cleaning, rinsing, recycling, disposal, or other activities related to the process. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

ii. Material Handling and Storage Areas

Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

iii. Dust and Particulate Generating Activities

Describe all industrial activities that generate dust or particulates that may be deposited within the facility's boundaries and identify their discharge locations; the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.

iv. Significant Spills and Leaks

Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR, Part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (U.S. EPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 Code of Federal Regulations [CFR], Parts 110, 117, and 302).

The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. Such list shall be updated as appropriate during the term of this General Permit.

v. Non-Storm Water Discharges

Facility operators shall investigate the facility to identify all non-storm water discharges and their sources. As part of this investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

All non-storm water discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

Non-storm water discharges that contain significant quantities of pollutants or that do not meet the conditions provided in Special Conditions D. are prohibited by this General Permit (Examples of prohibited non-storm water discharges are contact and non-contact cooling water, boiler blowdown, rinse water, wash water, etc.). Non-storm water discharges that meet the conditions provided in Special Condition D. are authorized by this General Permit. The SWPPP must include BMPs to prevent or reduce contact of non-storm water discharges with significant materials or equipment.

vi. Soil Erosion

Describe the facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.

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

7. Assessment of Potential Pollutant Sources

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

      i. Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and

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

   b. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

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

8. Storm Water Best Management Practices

   The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (Sections A.6. and 7. above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

TABLE B
EXAMPLE

ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES
SUMMARY

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery. Spills caused by topping off fuel tanks. Hosing or washing down fuel oil fuel area. Leaking storage tanks. Rainfall running off fuel oil, and rainfall running onto and off fueling area.	fuel oil	Use spill and overflow protection. Minimize run-on of storm water into the fueling area. Cover fueling area. Use dry cleanup methods rather than hosing down area. Implement proper spill prevention control program. Implement adequate preventative maintenance program to preventive tank and line leaks. Inspect fueling areas regularly to detect problems before they occur. Train employees on proper fueling, cleanup, and spill response techniques.

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

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

a. Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-structural BMPs options before considering additional structural BMPs (see Section A.8.b. below). Below is a list of non-structural BMPs that should be considered:

i. Good Housekeeping

Good housekeeping generally consist of practical procedures to maintain a clean and orderly facility.

ii. Preventive Maintenance

Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.

iii. Spill Response

This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.

iv. Material Handling and Storage

This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.

v. Employee Training

This includes training of personnel who are responsible for (1) implementing activities identified in the SWPPP, (2) conducting inspections, sampling, and visual observations, and (3) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.

vi. Waste Handling/Recycling

This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.

vii. Recordkeeping and Internal Reporting

This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.

viii. Erosion Control and Site Stabilization

This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.

ix. Inspections

This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.

x. Quality Assurance

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

b. Structural BMPs

Where non-structural BMPs as identified in Section A.8.a. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of structural BMPs that should be considered:

i. Overhead Coverage

This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.

ii. Retention Ponds

This includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow storm water to discharge from the facility.

iii. Control Devices

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

iv. Secondary Containment Structures

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

v. Treatment

This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc. that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

9. Annual Comprehensive Site Compliance Evaluation

The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1-June 30). Evaluations shall be conducted within 8-16 months

of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following:

a. A review of all visual observation records, inspection records, and sampling and analysis results.

b. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.

c. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.

d. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule, as required in Section A.10.e, for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and (vi) a certification that the facility operator is in compliance with this General Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this General Permit. The evaluation report shall be submitted as part of the annual report, retained for at least five years, and signed and certified in accordance with Standard Provisions 9. and 10. of Section C. of this General Permit.

10. SWPPP General Requirements

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

b. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this Section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.

c. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.

d. Other than as provided in Provisions B.11, B.12, and E.2 of the General Permit, the SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this General Permit.

e. When any part of the SWPPP is infeasible to implement by the deadlines specified in Provision E.2 or Sections A.1, A.9, A.10.c, and A.10.d of this General Permit due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.

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

ATTACHMENT H – STATE WATER BOARD MINIMUM LEVELS

SWB Minimum Levels in ppb (µg/L)

The Minimum Levels (MLs) in this appendix are for use in reporting and compliance determination purposes in accordance with section 2.4 of the State Implementation Policy. These MLs were derived from data for priority pollutants provided by State certified analytical laboratories in 1997 and 1998. These MLs shall be used until new values are adopted by the SWRCB and become effective. The following tables (Tables 2a - 2d) present MLs for four major chemical groupings: volatile substances, semi-volatile substances, inorganics, and pesticides and PCBs.

Table 2a - VOLATILE SUBSTANCES*	GC	GCMS
1,1 Dichloroethane	0.5	1
1,1 Dichloroethylene	0.5	2
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
1,2 Dichlorobenzene (volatile)	0.5	2
1,2 Dichloroethane	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichlorobenzene (volatile)	0.5	2
1,3 Dichloropropene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Methyl Bromide	1.0	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromo-methane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Chloromethane	0.5	2
Dichlorobromo-methane	0.5	2
Dichloromethane	0.5	2
Ethylbenzene	0.5	2
Tetrachloroethylene	0.5	2
Toluene	0.5	2
Trans-1,2 Dichloroethylene	0.5	1
Trichloroethene	0.5	2
Vinyl Chloride	0.5	2

*The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Benzo (a) Anthracene	10	5		
1,2 Dichlorobenzene (semivolatile)	2	2		
1,2 Diphenylhydrazine		1		
1,2,4 Trichlorobenzene	1	5		
1,3 Dichlorobenzene (semivolatile)	2	1		
1,4 Dichlorobenzene (semivolatile)	2	1		
2 Chlorophenol	2	5		
2,4 Dichlorophenol	1	5		
2,4 Dimethylphenol	1	2		
2,4 Dinitrophenol	5	5		
2,4 Dinitrotoluene	10	5		
2,4,6 Trichlorophenol	10	10		
2,6 Dinitrotoluene		5		
2- Nitrophenol		10		
2-Chloroethyl vinyl ether	1	1		
2-Chloronaphthalene		10		
3,3' Dichlorobenzidine		5		
Benzo (b) Fluoranthene		10	10	
3-Methyl-Chlorophenol	5	1		
4,6 Dinitro-2-methylphenol	10	5		
4- Nitrophenol	5	10		
4-Bromophenyl phenyl ether	10	5		
4-Chlorophenyl phenyl ether		5		
Acenaphthene	1	1	0.5	
Acenaphthylene		10	0.2	
Anthracene		10	2	
Benzidine		5		
Benzo(a) pyrene		10	2	
Benzo(g,h,i)perylene		5	0.1	
Benzo(k)fluoranthene		10	2	
bis 2-(1-Chloroethoxyl) methane		5		
bis(2-chloroethyl) ether	10	1		
bis(2-Chloroisopropyl) ether	10	2		
bis(2-Ethylhexyl) phthalate	10	5		
Butyl benzyl phthalate	10	10		
Chrysene		10	5	
di-n-Butyl phthalate		10		
di-n-Octyl phthalate		10		
Dibenzo(a,h)-anthracene		10	0.1	
Diethyl phthalate	10	2		
Dimethyl phthalate	10	2		
Fluoranthene	10	1	0.05	
Fluorene		10	0.1	
Hexachloro-cyclopentadiene	5	5		
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
N-Nitroso diphenyl amine	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
Pentachlorophenol	1	5		
Phenanthrene		5	0.05	
Phenol **	1	1		50
Pyrene		10	0.05	

* With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1,000; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1,000.
** Phenol by colorimetric technique has a factor of 1.

Table 2c – INORGANICS*	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1,000
Arsenic		2	10	2	2	1		20	1,000
Beryllium	20	0.5	2	0.5	1				1,000
Cadmium	10	0.5	10	0.25	0.5				1,000
Chromium (total)	50	2	10	0.5	1				1,000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1,000
Cyanide								5	
Lead	20	5	5	0.5	2				10,000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1,000
Selenium		5	10	2	5	1			1,000
Silver	10	1	10	0.25	2				1,000
Thallium	10	2	10	1	5				1,000
Zinc	20		20	1	10				1,000

* The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2d – PESTICIDES – PCBs*	GC
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
a-Endosulfan	0.02
alpha-BHC	0.01
Aldrin	0.005
b-Endosulfan	0.01
Beta-BHC	0.005
Chlordane	0.1

Table 2d – PESTICIDES – PCBs*	GC
Delta-BHC	0.005
Dieldrin	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Gamma-BHC (Lindane)	0.02
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

* The normal method-specific factor for these substances is 100; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.

Techniques:
GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma
ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR - Colorimetric

ATTACHMENT I – PRIORITY POLLUTANTS LIST

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
1	Antimony	7440360	EPA 6020/200.8
2	Arsenic	7440382	EPA 1632
3	Beryllium	7440417	EPA 6020/200.8
4	Cadmium	7440439	EPA 1638/200.8
5a	Chromium (III)	16065831	EPA 6020/200.8
5a	Chromium (VI)	18540299	EPA 7199/1636
6	Copper	7440508	EPA 6020/200.8
7	Lead	7439921	EPA 1638
8	Mercury	7439976	EPA 1669/1631
9	Nickel	7440020	EPA 6020/200.8
10	Selenium	7782492	EPA 6020/200.8
11	Silver	7440224	EPA 6020/200.8
12	Thallium	7440280	EPA 6020/200.8
13	Zinc	7440666	EPA 6020/200.8
14	Cyanide	57125	EPA 9012A
15	Asbestos	1332214	EPA/600/R-93/116(PCM)
16	2,3,7,8-TCDD	1746016	EPA 8290 (HRGC) MS
17	Acrolein	107028	EPA 8260B
18	Acrylonitrile	107131	EPA 8260B
19	Benzene	71432	EPA 8260B
20	Bromoform	75252	EPA 8260B
21	Carbon Tetrachloride	56235	EPA 8260B
22	Chlorobenzene	108907	EPA 8260B
23	Chlorodibromomethane	124481	EPA 8260B
24	Chloroethane	75003	EPA 8260B
25	2-Chloroethylvinyl Ether	110758	EPA 8260B
26	Chloroform	67663	EPA 8260B
27	Dichlorobromomethane	75274	EPA 8260B
28	1,1-Dichloroethane	75343	EPA 8260B
29	1,2-Dichloroethane	107062	EPA 8260B
30	1,1-Dichloroethylene	75354	EPA 8260B
31	1,2-Dichloropropane	78875	EPA 8260B
32	1,3-Dichloropropylene	542756	EPA 8260B
33	Ethylbenzene	100414	EPA 8260B

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
34	Methyl Bromide	74839	EPA 8260B
35	Methyl Chloride	74873	EPA 8260B
36	Methylene Chloride	75092	EPA 8260B
37	1,1,2,2-Tetrachloroethane	79345	EPA 8260B
38	Tetrachloroethylene	127184	EPA 8260B
39	Toluene	108883	EPA 8260B
40	1,2-Trans-Dichloroethylene	156605	EPA 8260B
41	1,1,1-Trichloroethane	71556	EPA 8260B
42	1,12-Trichloroethane	79005	EPA 8260B
43	Trichloroethylene	79016	EPA 8260B
44	Vinyl Chloride	75014	EPA 8260B
45	2-Chlorophenol	95578	EPA 8270C
46	2,4-Dichlorophenol	120832	EPA 8270C
47	2,4-Dimethylphenol	105679	EPA 8270C
48	2-Methyl-4,6-Dinitrophenol	534521	EPA 8270C
49	2,4-Dinitrophenol	51285	EPA 8270C
50	2-Nitrophenol	88755	EPA 8270C
51	4-Nitrophenol	100027	EPA 8270C
52	3-Methyl-4-Chlorophenol	59507	EPA 8270C
53	Pentachlorophenol	87865	EPA 8270C
54	Phenol	108952	EPA 8270C
55	2,4,6-Trichlorophenol	88062	EPA 8270C
56	Acenaphthene	83329	EPA 8270C
57	Acenaphthylene	208968	EPA 8270C
58	Anthracene	120127	EPA 8270C
59	Benzidine	92875	EPA 8270C
60	Benzo(a)Anthracene	56553	EPA 8270C
61	Benzo(a)Pyrene	50328	EPA 8270C
62	Benzo(b)Fluoranthene	205992	EPA 8270C
63	Benzo(ghi)Perylene	191242	EPA 8270C
64	Benzo(k)Fluoranthene	207089	EPA 8270C
65	Bis(2-Chloroethoxy)Methane	111911	EPA 8270C
66	Bis(2-Chloroethyl)Ether	111444	EPA 8270C
67	Bis(2-Chloroisopropyl)Ether	108601	EPA 8270C
68	Bis(2-Ethylhexyl)Phthalate	117817	EPA 8270C
69	4-Bromophenyl Phenyl Ether	101553	EPA 8270C
70	Butylbenzyl Phthalate	85687	EPA 8270C
71	2-Chloronaphthalene	91587	EPA 8270C
72	4-Chlorophenyl Phenyl	7005723	EPA 8270C

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
	Ether		
73	Chrysene	218019	EPA 8270C
74	Dibenzo(a,h)Anthracene	53703	EPA 8270C
75	1,2-Dichlorobenzene	95501	EPA 8260B
76	1,3-Dichlorobenzene	541731	EPA 8260B
77	1,4-Dichlorobenzene	106467	EPA 8260B
78	3,3'-Dichlorobenzidine	91941	EPA 8270C
79	Diethyl Phthalate	84662	EPA 8270C
80	Dimethyl Phthalate	131113	EPA 8270C
81	Di-n-Butyl Phthalate	84742	EPA 8270C
82	2,4-Dinitrotoluene	121142	EPA 8270C
83	2,6-Dinitrotoluene	606202	EPA 8270C
84	Di-n-Octyl Phthalate	117840	EPA 8270C
85	1,2-Diphenylhydrazine	122667	EPA 8270C
86	Fluoranthene	206440	EPA 8270C
87	Fluorene	86737	EPA 8270C
88	Hexachlorobenzene	118741	EPA 8260B
89	Hexachlorobutadiene	87863	EPA 8260B
90	Hexachlorocyclopentadiene	77474	EPA 8270C
91	Hexachloroethane	67721	EPA 8260B
92	Indeno(1,2,3-cd)Pyrene	193395	EPA 8270C
93	Isophorone	78591	EPA 8270C
94	Naphthalene	91203	EPA 8260B
95	Nitrobenzene	98953	EPA 8270C
96	N-Nitrosodimethylamine	62759	EPA 8270C
97	N-Nitrosodi-n-Propylamine	621647	EPA 8270C
98	N-Nitrosodiphenylamine	86306	EPA 8270C
99	Phenanthrene	85018	EPA 8270C
100	Pyrene	129000	EPA 8270C
101	1,2,4-Trichlorobenzene	120821	EPA 8260B
102	Aldrin	309002	EPA 8081A
103	alpha-BHC	319846	EPA 8081A
104	beta-BHC	319857	EPA 8081A
105	gamma-BHC	58899	EPA 8081A
106	delta-BHC	319868	EPA 8081A
107	Chlordane	57749	EPA 8081A
108	4,4'-DDT	50293	EPA 8081A
109	4,4'-DDE	72559	EPA 8081A
110	4,4'-DDD	72548	EPA 8081A
111	Dieldrin	60571	EPA 8081A

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
112	alpha-Endosulfan	959988	EPA 8081A
113	beta-Endosulfan	33213659	EPA 8081A
114	Endosulfan Sulfate	1031078	EPA 8081A
115	Endrin	72208	EPA 8081A
116	Endrin Aldehyde	7421934	EPA 8081A
117	Heptachlor	76448	EPA 8081A
118	Heptachlor Epoxide	1024573	EPA 8081A
119	PCB-1016	12674112	EPA 8082
120	PCB-1221	11104282	EPA 8082
121	PCB-1232	11141165	EPA 8082
122	PCB-1242	53469219	EPA 8082
123	PCB-1248	12672296	EPA 8082
124	PCB-1254	11097691	EPA 8082
125	PCB-1260	11096825	EPA 8082
126	Toxaphene	8001352	EPA 8081A