California Central Coast Water Quality Control Board

Central Coast Region

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Linda S. Adams
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

ORDER NO. R3-2007-0002
NPDES NO. CA0000051

WASTE DISCHARGE REQUIREMENTS FOR CONOCOPHILLIPS COMPANY, SANTA MARIA REFINERY

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	**ConocoPhillips Company**
Name of Facility	**Santa Maria Refinery**
Facility Address	**2555 Willow Road**
	Arroyo Grande, CA 93420
	San Luis Obispo County
U.S. Environmental Protection Agency and Central Coast Water Board classify this discharge as a major discharge.	

The discharge by ConocoPhillips Company from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Treated Production Wastewater and Stormwater	35 ° 02' 52" N	120° 38' 12" W	Pacific Ocean

Table 3. Administrative Information

This Order was adopted by the Central Coast Water Board on:	**September 7, 2007**
This Order shall become effective on:	**September 7, 2007**
This Order shall expire on:	**September 7, 2012**
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	**March 7, 2012**

IT IS HEREBY ORDERED, that Order No. R3-2002-0010 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with requirements in this Order.

I, Roger W. Briggs, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board), on September 7, 2007.

Roger W. Briggs, Executive Officer

Table of Contents

I. Facility Information 3
II. Findings 3
III. Discharge Prohibitions 7
IV. Effluent Limitations and Discharge Specifications 7
A. Effluent Limitations – Discharge Point No. 001 7
B. Land Discharge Specifications 13
C. Reclamation Specifications 13
V. Receiving Water Limitations 13
A. Surface Water Limitations 13
B. Groundwater Limitations 14
VI. Provisions 15
A. Standard Provisions 15
B. Monitoring and Reporting Program (MRP) Requirements 15
C. Special Provisions 15
1. Reopener Provisions 15
2. Special Studies, Technical Reports and Additional Monitoring Requirements 15
3. Best Management Practices and Pollution Prevention 16
4. Construction, Operation and Maintenance Specifications 16
5. Special Provisions for Municipal Facilities (POTWs Only) 16
6. Other Special Provisions 16
7. Compliance Schedules 16
VII. Compliance Determination 16

List of Tables

Table 1. Discharger Information 1
Table 2. Discharge Location 1
Table 3. Administrative Information 1
Table 4. Facility Information 3
Table 5. Final Effluent Limitations for Discharge Point No. 001 8
Table 6. Storm Runoff Credits 8
Table 7. Effluent Limitations When Effluent Flow is Equal to or Less Than 0.285 MGD 9
Table 8. Effluent Limitations When Effluent Flow is Greater Than 0.285 MGD 10
Table 9. Monthly Average Effluent Limitations 11

List of Attachments

Attachment A – Definitions A-1
Attachment B – Map B-1
Attachment C – Flow Schematic C-1
Attachment D – Standard Provisions D-1
Attachment E – Monitoring and Reporting Program (MRP) E-1
Attachment F – Fact Sheet F-1
Attachment G – Technology Based-Effluent Limitation Calculations G-1

I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	**ConocoPhillips Company**
Name of Facility	**Santa Maria Refinery**
Facility Address	**2555 Willow Road**
	Arroyo Grande, CA 93420
	San Luis Obispo County
Facility Contact, Title, and Phone	**Kristen Kopp, Supervisor Health, Environment and Regulatory Compliance, (805) 343-3241**
Mailing Address	**2555 Willow Road, Arroyo Grande, CA 93420**
Type of Facility	**Petroleum Refinery (SIC Code 2911)**
Facility Design Flow	**0.575 million gallons per day (MGD)**

II. FINDINGS

The California Water Quality Control Board, Central Coast Region (Central Coast Water Board), finds:

A. **Background.** ConocoPhillips (Discharger) is currently discharging pursuant to Order No. R3-2002-0010, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0000051. The Discharger submitted a Report of Waste Discharge, dated September 29, 2006, and applied for a NPDES permit renewal to discharge up to 0.570 million gallons per day (MGD) of treated wastewater from the Santa Maria Refinery (Facility) in San Luis Obispo County. For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. **Facility Description.** The Discharger owns and operates a petroleum refinery with an annual average rate capacity of 44,440 barrels per day. The Facility maintains two separate collection systems, one for process wastewater and contact stormwater, and the other for non-contact stormwater. Process wastewater and precipitation runoff from the oil storage tank dikes and the operating units is collected in the process water sewer system. This wastewater flows by gravity to a wastewater treatment plant. The wastewater treatment plant includes three oil/water separators, two surge tanks, dissolved air floatation, a trickling filter, an Orbal aeration system, and a secondary clarifier. Wastewater is discharged from Discharge Point No. 001 to the Pacific Ocean, a water of the United States. Precipitation runoff from streets and unimproved areas, not subject to oil spills, is collected in a non-contact stormwater sewer system and flows by gravity to an evaporation pond. This non-contact stormwater is not discharged to the receiving water. Sludge generated during the treatment processes is recycled onsite at the coking facility. Attachment B provides a map of the area around the facility and Attachment C provides a flow schematic 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 (commencing with section 13370). 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 (WDR) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

D. **Background and Rationale for Requirements.** The Central Coast Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through G are also incorporated into this Order.

E. **California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of the CEQA, Public Resources Code sections 21100-21177.

F. **Technology-based Effluent Limitations.** Section 301(b) of the CWA and implementing USEPA permit regulations at 40 CFR 122.44[1] require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Effluent Limitations Guidelines and Standards for the Petroleum Point Source Category, 40 CFR Part 419, Subpart B. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

G. **Water Quality-Based Effluent Limitations.** Clean Water Act section 301(b) and NPDES regulations at 40 CFR 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

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

[1] All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

H. **Water Quality Control Plans.** The Central Coast Water Board adopted a *Water Quality Control Plan for the Central Coast Basin* (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. Section II.A.1 of the Basin Plan states, "The provisions of the State Board's "Water Quality Control Plan for Ocean Waters of California" (Ocean Plan), "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California" (Thermal Plan), and any revisions thereto shall apply in their entirety to affected waters of the basin." The Basin Plan establishes beneficial uses for the Pacific Ocean receiving water, those beneficial uses include: Industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; rare and endangered species; marine habitat; wildlife habitat; and shellfish harvesting. In addition to the provisions included in the Ocean Plan and the Thermal Plan, the Basin Plan establishes water quality objectives for dissolved oxygen, pH, and radioactivity to all ocean waters. Requirements of this Order implement the Basin Plan.

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

I. **California Ocean Plan.** The State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, and 2005. The State Water Board adopted the latest amendment on April 21, 2005, and it became effective on February 14, 2006. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. Requirements of this Order implement the Ocean Plan.

J. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WATER QUALITY STANDARDS) become effective for CWA purposes (codified at 40 CFR §131.21; 65 Fed. Reg. 24641; April 27, 2000). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

K. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on biochemical oxygen demand (BOD_5), total suspended solids (TSS), chemical oxygen demand (COD), oil and grease, phenolic compounds, ammonia (as N), sulfide, total chromium, hexavalent chromium, and pH. Restrictions on BOD_5, TSS, COD, oil and grease, phenolic compounds, ammonia (as N), sulfide, total chromium, hexavalent chromium, and pH are discussed in Section IV.B of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the Ocean Plan, which was approved by USEPA on February 14, 2006. Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

L. **Antidegradation Policy.** NPDES regulations at 40 CFR 131.12 require that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Central Coast Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 131.12 and State Water Board Resolution No. 68-16.

M. **Anti-Backsliding Requirements.** CWA sections 402(o)(2) and 303(d)(4) and NPDES 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 this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

N. **Endangered Species Act.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

O. **Monitoring and Reporting.** NPDES regulations at 40 CFR 122.48 require that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 of the CWC authorizes the Central Coast Water Board to require technical and monitoring reports. The Monitoring and Reporting Program, provided as Attachment E to this Order, establishes monitoring and reporting requirements to implement federal and State requirements.

P. **Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D. The Central Coast 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.

Q. **Provisions and Requirements Implementing State Law.** The provisions and requirements in subsections IV.B and VI.C of this Order are included to implement state law only. These provisions and requirements are not required or authorized under the federal CWA; consequently, violations of these provisions and requirements are not subject to the enforcement remedies that are available for NPDES violations.

R. **Notification of Interested Parties.** The Central Coast 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 of this Order.

S. **Consideration of Public Comment.** The Central Coast 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 of this Order.

III. DISCHARGE PROHIBITIONS

A. Discharge of treated production wastewater and storm runoff to the Pacific Ocean at a location other than Discharge Point No. 001 is prohibited.

B. Discharge of wastewaters not specified in Section II.B of this Order are prohibited.

C. Discharge of untreated wastewater to the ocean is prohibited.

D. Discharge of sanitary wastes to other than a subsurface septic tank/leachfield is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point No. 001

1. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP:

Table 5. Final Effluent Limitations for Discharge Point No. 001

Parameters	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand (BOD_5) (5-day @ 20 Deg. C)	lbs/day	204	367	--	--
Total Suspended Solids (TSS)	lbs/day	163	256	--	--
Chemical Oxygen Demand (COD)	lbs/day	1,430	2,750	--	--
Oil and Grease	lbs/day	59.4	111	--	--
Phenolic Compounds	lbs/day	1.06	2.7	--	--
Ammonia (as N)	lbs/day	220	290	--	--
Sulfide	lbs/day	1.08	2.41	--	--
Total Chromium	lbs/day	1.26	3.60	--	--
Hexavalent Chromium	lbs/day	0.102	0.230	--	--
pH	Standard units	--	--	6.0	9.0

In addition to the effluent limitations contained in Table 6, additional mass loading credits for storm runoff, which is commingled with process wastewater and is treated in the main treatment system and discharged to the Pacific Ocean, may be granted. During wet weather runoff, the following incremental effluent credits shall be added to the effluent limitations specified in Table 6.

Table 6. Storm Runoff Credits.

Parameters	Units	Incremental Effluent Credit	
		Monthly Average	Daily Maximum
BOD_5	lbs/1,000 gallon[1]	0.22	0.40
TSS	lbs/1,000 gallon[1]	0.18	0.28
COD	lbs/1,000 gallon[1]	1.5	3.0
Oil and Grease	lbs/1,000 gallon[1]	0.067	0.13
Phenolic Compounds	lbs/1,000 gallon[1]	0.0014	0.0029
Total Chromium	lbs/1,000 gallon[1]	0.0018	0.0050
Hexavalent Chromium	lbs/1,000 gallon[1]	0.00023	0.00052

[1] Credit calculated based on measured flow of contaminated storm runoff commingled with process wastewater.

2. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP, when effluent flow is equal to or less than 0.285 MGD:

Table 7. Effluent Limitations When Effluent Flow is Equal to or Less Than 0.285 MGD

Parameters	Units	Effluent Limitations[1]		
		Maximum Daily	Instantaneous Maximum	Six-Month Median
Arsenic	mg/L	2.44	6.47	0.42
	lbs/day[2]	5.80	15.38	1.00
Cadmium	mg/L	0.34	0.84	0.08
	lbs/day	0.81	2.00	0.19
Nickel	mg/L	1.68	4.20	0.42
	lbs/day	4.00	9.98	1.00
Selenium	mg/L	5.04	12.60	1.26
	lbs/day	11.98	29.95	2.99
Silver	mg/L	0.22	0.57	0.06
	lbs/day	0.52	1.35	0.14
Total Chlorine Residual	mg/L	0.67	5.04	0.17
	lbs/day	1.59	11.98	0.40
Phenolic Compounds (non-chlorinated)	mg/L	10.08	25.20	2.52
	lbs/day	23.96	59.90	5.99
Chlorinated Phenolics	mg/L	0.34	0.84	0.08
	lbs/day	0.81	2.00	0.19
Endosulfan[2]	µg/L	1.51	2.27	0.76
	lbs/day	3.59	5.40	1.81
Endrin	µg/L	0.34	0.50	0.17
	lbs/day	0.81	1.19	0.40
HCH[3]	µg/L	0.67	1.01	0.34
	lbs/day	1.59	2.40	0.81
Radioactivity	[4]			

[1] Based on a dilution factor of 83:1.
[2] The sum of endosulfan-alpha and endosulfan-beta and endosulfan sulfate.
[3] The sum of alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.
[4] Not to exceed limits specified in CCR Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269.

3. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP, when effluent flow is greater than 0.285 MGD:

Table 8. Effluent Limitations When Effluent Flow is Greater Than 0.285 MGD

Parameters	Units	Effluent Limitations[1]		
		Maximum Daily	Instantaneous Maximum	Six-Month Median
Arsenic	mg/L	2.00	5.32	0.35
	lbs/day	9.59	25.51	1.68
Cadmium	mg/L	0.28	0.69	0.07
	lbs/day	1.34	3.31	0.34
Nickel	mg/L	1.38	3.45	0.35
	lbs/day	6.62	16.54	1.68
Selenium	mg/L	4.14	10.35	1.04
	lbs/day	19.85	49.63	4.99
Silver	mg/L	0.18	0.47	0.05
	lbs/day	0.86	2.25	0.24
Total Chlorine Residual	mg/L	0.55	4.14	0.14
	lbs/day	2.64	19.85	0.67
Phenolic Compounds (non-chlorinated)	mg/L	8.28	20.70	2.07
	lbs/day	39.71	99.27	9.93
Chlorinated Phenolics	mg/L	0.28	0.69	0.07
	lbs/day	1.34	3.31	0.34
Endosulfan[2]	µg/L	1.24	1.86	0.62
	lbs/day	5.95	8.92	2.97
Endrin	µg/L	0.28	0.41	0.14
	lbs/day	1.34	1.97	0.67
HCH[3]	µg/L	0.55	0.83	0.28
	lbs/day	2.64	3.98	1.34
Radioactivity	[4]			

[1] Based on a dilution factor of 68:1.
[2] The sum of endosulfan-alpha and endosulfan-beta and endosulfan sulfate.
[3] The sum of alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.
[4] Not to exceed limits specified in CCR Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269.

4. The Discharger shall maintain compliance with the following applicable flow dependent effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP:

Table 9. Monthly Average Effluent Limitations

Parameters	Units	Monthly Average Effluent Limitations	
		= or < 0.285 MGD	>0.285 MGD
Antimony	mg/L	100.8	82.800
	lbs/day	239.6	397.1
Bis(2-Chloroethoxy) Methane	mg/L	0.3696	0.304
	lbs/day	88.6	1.5
Bis(2-Chloroisopropyl) Ether	mg/L	100.8	82.800
	lbs/day	8,926.5	397.1
Chlorobenzene	mg/L	47.88	39.330
	lbs/day	113.8	188.6
Chromium (III)	g/L	15.96	13.110
	lbs/day	37,935	62,869.0
Di-n-butyl Phthalate	mg/L	294	241.500
	lbs/day	698.8	1,158.1
Dichlorobenzenes[1]	mg/L	428.4	351.900
	lbs/day	1,018.3	1,687.5
Diethyl Phthalate	mg/L	2,772	2,277.00
	lbs/day	6,588.8	10,919.3
Dimethyl Phthalate	g/L	68.88	56.580
	lbs/day	163,720.9	271,329.4
4,6-Dinitro-2-methylphenol	mg/L	18.48	15.180
	lbs/day	43.92	72.8
2,4-Dinitrophenol	mg/L	0.336	0.276
	lbs/day	8.0	13.2
Ethylbenzene	mg/L	344.4	282.900
	lbs/day	818.6	1,356.6
Fluoranthene	mg/L	1.26	1.035
	lbs/day	3.0	5.0
Hexachlorocyclopentadiene	mg/L	4.872	4.002
	lbs/day	11.6	19.2
Nitrobenzene	mg/L	0.4116	0.338
	lbs/day	1.0	1.6
Thallium	mg/L	0.168	0.138
	lbs/day	0.4	0.7
Toluene	g/L	7.14	5.865
	lbs/day	16,971.1	28,125.6
Tributyltin	µg/L	0.1176	0.097
	lbs/day	0.0003	0.0004
1,1,1-Trichloroethane	g/L	45.36	37.260
	lbs/day	107,816.2	178,680.3
Acrylonitrile	µg/L	8.4	6.900
	lbs/day	0.02	0.03
Aldrin	ng/L	1.848	1.518
	lbs/day	4.4×10^{-6}	7.3×10^{-6}
Benzene	µg/L	495.6	407.100
	lbs/day	1.2	1.9
Benzidine	µg/L	0.005796	0.005
	lbs/day	1.4×10^{-5}	2.3×10^{-6}
Beryllium	µg/L	2.772	2.277
	lbs/day	0.007	0.01
Bis(2-Chloroethyl) Ether	µg/L	3.78	3.105
	lbs/day	0.009	0.01

Parameters	Units	Monthly Average Effluent Limitations	
		= or < 0.285 MGD	>0.285 MGD
Bis(2-Ethlyhexyl) Phthalate	µg/L	294	241.500
	lbs/day	0.7	1.2
Carbon Tetrachloride	µg/L	75.6	62.100
	lbs/day	0.2	0.3
Chlordane[2]	ng/L	1.932	1.587
	lbs/day	4.5×10^{-6}	7.6×10^{-6}
Chlorodibromethane	µg/L	722.4	593.400
	lbs/day	1.7	2.8
Chloroform	µg/L	10,920	8,970.000
	lbs/day	26.0	43.0
DDT[3]	ng/L	14.28	11.730
	lbs/day	3.4×10^{-5}	5.6×10^{-5}
1,4-Dichlorobenzene	µg/L	1,512	1,242.000
	lbs/day	3.6	5.9
3,3'-Dichlorobenzidine	µg/L	0.6804	0.559
	lbs/day	0.002	0.003
1,2-Dichloroethane	mg/L	2.352	1.932
	lbs/day	5.6	9.3
1,1-Dichloroethylene	mg/L	0.0756	0.062
	lbs/day	0.2	0.3
Dichlorobromomethane	mg/L	0.5208	0.428
	lbs/day	1.2	2.0
Dichloromethane	mg/L	37.8	31.050
	lbs/day	89.8	148.9
1,3-Dichloropropene	mg/L	0.7476	0.614
	lbs/day	1.8	2.9
Dieldrin	ng/L	3.36	2.760
	lbs/day	7.9×10^{-6}	1.3×10^{-5}
2,4-Dinitrotoluene	µg/L	218.4	179.400
	lbs/day	0.5	0.9
1,2-Diphenylhydrazine	µg/L	13.44	11.040
	lbs/day	0.03	0.05
Halomethanes[4]	mg/L	10.92	8.970
	lbs/day	26.0	43.0
Heptachlor	µg/L	0.0042	0.003
	lbs/day	10.0×10^{-6}	1.6×10^{-5}
Heptachlor Epoxide	µg/L	0.00168	0.001
	lbs/day	4.0×10^{-6}	6.6×10^{-6}
Hexachlorobenzene	ng/L	17.64	14.490
	lbs/day	4.2×10^{-5}	6.9×10^{-5}
Hexachlorobutadiene	µg/L	1,176	966.000
	lbs/day	2.8	4.6
Hexachloroethane	µg/L	210	172.500
	lbs/day	0.5	0.8
Isophorone	g/L	0.06132	0.050
	lbs/day	145.7	241.5
N-nitrosodimethylamine	µg/L	613.2	503.700
	lbs/day	1.5	2.4
N-nitrosodi-N-propylamine	µg/L	31.92	26.220
	lbs/day	0.08	0.1
N-nitrosodiphenylamine	µg/L	210	172.500
	lbs/day	0.5	0.8
PAHs[5]	µg/L	0.7392	0.607

Parameters	Units	Monthly Average Effluent Limitations	
		= or < 0.285 MGD	>0.285 MGD
	lbs/day	0.002	0.003
PCBs[6]	ng/L	1.596	1.311
	lbs/day	3.8×10^{-6}	6.3×10^{-6}
TCDD Equivalents[7]	pg/L	0.3276	0.269
	lbs/day	7.8×10^{-10}	1.3×10^{-9}
1,1,2,2-Tetrachloroethane	mg/L	0.1932	0.159
	lbs/day	0.5	0.8
Tetrachloroethylene	mg/L	0.168	0.138
	lbs/day	0.4	0.7
Toxaphene	ng/L	17.64	14.490
	lbs/day	4.2×10^{-5}	6.9×10^{-5}
Trichloroethylene	µg/L	2,268	1,863.000
	lbs/day	5.4	8.9
1,1,2-Trichloroethane	mg/L	0.7896	0.649
	lbs/day	1.9	3.1
2,4,6-Trichlorophenol	µg/L	24.4	20.01
	lbs/day	0.06	0.1
Vinyl Chloride	µg/L	3,024	2,484.000
	lbs/day	7.2	11.9

[1] The sum of 1,2- and 1,3-dichlorobenzene.
[2] The sum of chlordane-alpha, chlordane-gamma, chlordane-alpha, chordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.
[3] The sum of 4,4'-DDT; 2,4'-DDT; 4,4'-DDE; 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.
[4] The sum of bromoform, bromomethane, and chloromethane.
[5] Polynuclear Aromatic Hydrocarbons - The sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo[a]pyrene; chrysene; dibenzo[a,h]anthracene; fluorene; indeno[1,2,3-cd]pyrene; phenanthrene; and pyrene.
[6] Polychlorinated Biphenyls – The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
[7] The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as summarized in Appendix I of the Ocean Plan.

B. Land Discharge Specifications. Discharges of non-contact stormwater to the evaporation/percolation basins shall not cause constituent concentrations in ground water to exceed limits set forth in Title 22, Chapter 15, Articles 4, 4.5, 5 and 5.5 of the California Code of Regulations or cause a statistically significant increase in constituent concentrations in underlying ground waters, as determined by samples collected from wells up gradient and down gradient of the percolation ponds.

C. Reclamation Specifications. Not applicable to this permit.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations. Receiving water limitations are based on water quality objectives contained in the Basin Plan and Ocean Plan and are a required part of this Order.

1. Floating particulates and grease and oil shall not be visible.

2. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.

3. Natural light shall not be significantly reduced at any point outside the initial dilution zone as a result of the discharge of waste.

4. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.

5. The dissolved oxygen concentration shall not at any time fall below 5.0 mg/L or be depressed more than ten percent from that which occurs naturally as a result of the discharge of oxygen demanding waste material.

6. The pH shall not be depressed below 7.0, raised above 8.5, or changed more than 0.2 units from that which occurs naturally.

7. The dissolved sulfide concentrations of wastes in and near sediments shall not be significantly increased above that present under natural conditions.

8. The concentrations of substances with effluent limitations in this Order shall not increase in marine sediments to levels that would degrade indigenous biota.

9. The concentrations of organic materials shall not be increased in marine sediments to a level which would degrade marine life.

10. Nutrient materials shall not cause objectionable aquatic growth or degradation of indigenous biota.

11. Waste discharges to the ocean must be essentially free of substances that will accumulate to toxic levels in marine waters, sediments, or biota.

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

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

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

15. The temperature of the discharge shall ensure protection of beneficial uses.

B. Groundwater Limitations

Groundwater limitations are not included in this permit. Groundwater monitoring, evaluation and follow-up actions are addressed through a separate monitoring agreement.

VI. PROVISIONS

A. **Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

B. **Monitoring and Reporting Program (MRP) Requirements.** The Discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order. All monitoring shall be conducted according to 40 CFR 136, Guidelines Establishing Test Procedures for Analysis of Pollutants.

C. **Special Provisions**

1. **Reopener Provisions.** This permit may be reopened and modified in accordance with NPDES regulations at 40 CFR 122 and 124, as necessary, to include additional conditions or limitations based on newly available information or to implement any USEPA approved, new, State water quality objective.

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

   a. **Toxicity Reduction Requirements.** If the discharge consistently exceeds a chronic toxicity result of 84 TU_c when effluent flow is equal to or less than 0.285 MGD, or 69 TU_c when effluent flow is greater than 0.285 MGD, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE). The TRE shall include all reasonable steps to identify the source of toxicity. The Discharger shall take all reasonable steps to reduce toxicity to the required level once the source of toxicity is identified.

      1) The Discharger shall develop a TRE workplan in accordance with the TRE procedures established by the USEPA in the following guidance manuals:

         a) *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070).

         b) *Toxicity Identification Evaluation, Phase I* (EPA/600/6-91/005F).

         c) *Methods for Aquatic Toxicity Identification Evaluations, Phase II* (EPA/600/R-92/080).

         d) *Methods for Aquatic Toxicity Identification Evaluations, Phase III* (EPA/600/R-92/081).

      2) The Discharger shall submit the TRE workplan to the Central Coast Water Board within 180 days of the adoption of this Order. The TRE workplan shall be subject to the approval of the Central Coast Water Board and shall be modified as directed by the Central Coast Water Board.

      3) Within 15 days of completion of the TRE, the Discharger shall submit the results of the TRE, including a summary of the findings, data generated, a list of corrective actions necessary to achieve consistent compliance with toxicity objectives contained in the Ocean Plan and prevent recurrence of violations

of those limitation, and a time schedule for implementation of such corrective actions. The corrective actions and time schedule shall be modified at the direction of the Executive Officer.

3. **Best Management Practices and Pollution Prevention.** The Discharger had developed a Best Management Practices (BMP) plan which prevents, or minimizes the potential for, release of toxic substances from ancillary activities to the waters of the United States through plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The Discharger shall implement and update the BMP plan on an ongoing basis to ensure that no contaminated stormwater leaves the facility's property and enters surrounding surface waters.

4. **Construction, Operation and Maintenance Specifications.** Not applicable.

5. **Special Provisions for Municipal Facilities (POTWs Only).** Not applicable.

6. **Other Special Provisions.** Not applicable to this permit.

7. **Compliance Schedules.** Not applicable to this permit.

VII. COMPLIANCE DETERMINATION

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

A. **General.** Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Central Coast and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).

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

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

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

ATTACHMENT A – DEFINITIONS

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

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

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

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

Chronic Toxicity is a parameter which shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

a. Chronic Toxicity (TUc) expressed as Toxic Units Chronic (TUc)

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

b. No Observed Effect Level (NOEL) is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Ocean Plan Appendix II.

Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

DDT shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

Degradation shall be determined by comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.

Detected, but Not Quantified (DNQ) are those sample results less than the reported Minimum Level, but greater than or equal to the laboratory's Method Detection Limit.

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

Downstream Ocean Waters shall mean waters downstream with respect to ocean currents.

Endosulfan shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.

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

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

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

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

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

Instantaneous Maximum Effluent Limitation is 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 is 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).

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

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

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

MDL (Method Detection Limit) is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero, as defined in title 40 CFR 136, Appendix B.

Minimum Level (ML) is the concentrations at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed.

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

Not Detected (ND) are those sample results less than the laboratory's Method Detection Limit.

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

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

PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

Pollutant Minimization Program (PMP) means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling,

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

Reported Minimum Level is the Minimum Level (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the Minimum Levels included in this Order. The Minimum Levels included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Central Coast Water Board either from Appendix II of the Ocean Plan in accordance with section III.C.5.a. of the Ocean Plan or established in accordance with section III.C.5.b. of the Ocean Plan. The Minimum Level is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the Minimum Level depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the Minimum Level in the computation of the reported Minimum Level.

Satellite Collection System is the portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

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

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

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

State Water Quality Protection Areas (SWQPAs) are non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolution No.s 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

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

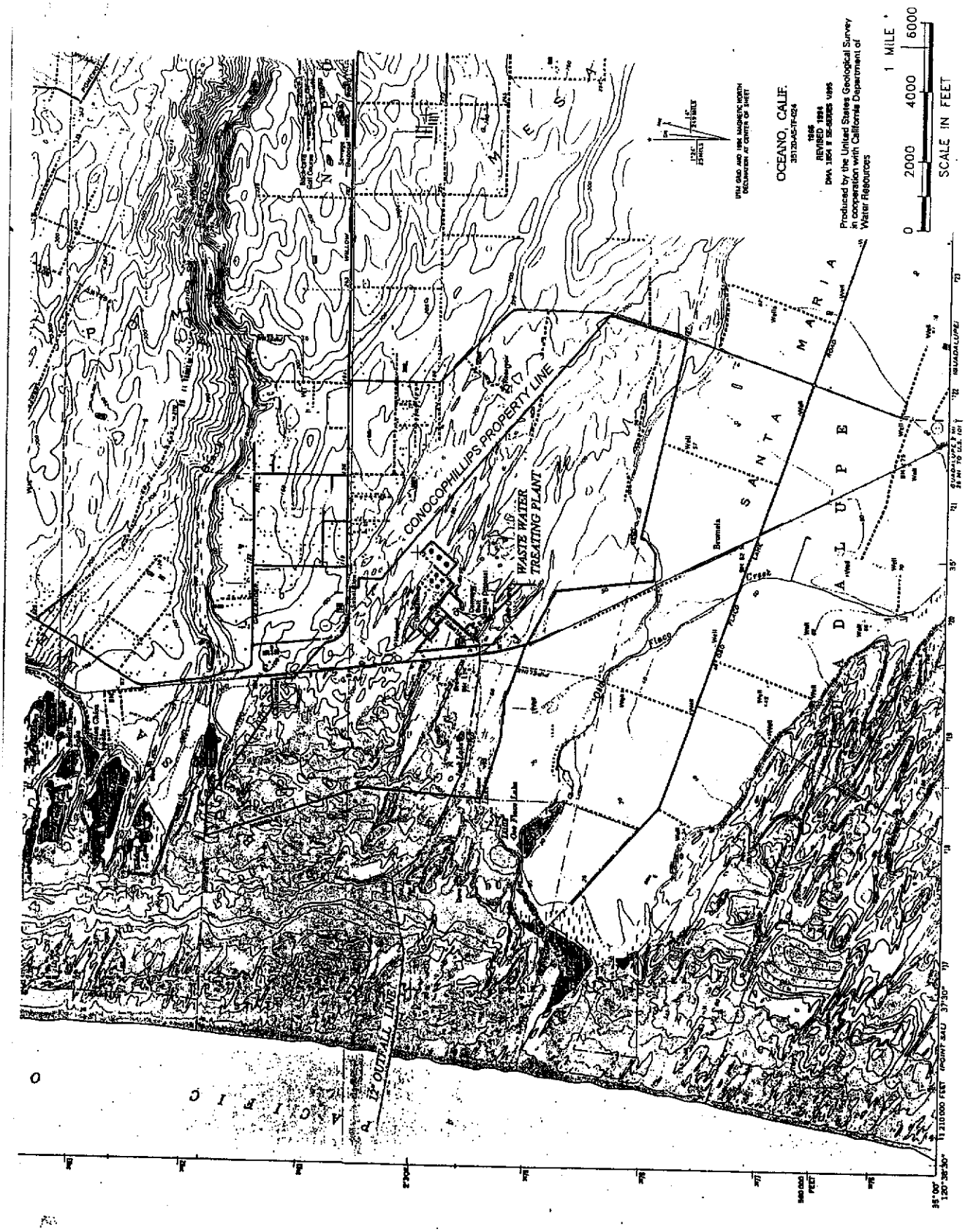
Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

Toxicity Reduction Evaluation (TRE) is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A TOXICITY IDENTIFICATION EVALUATION (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

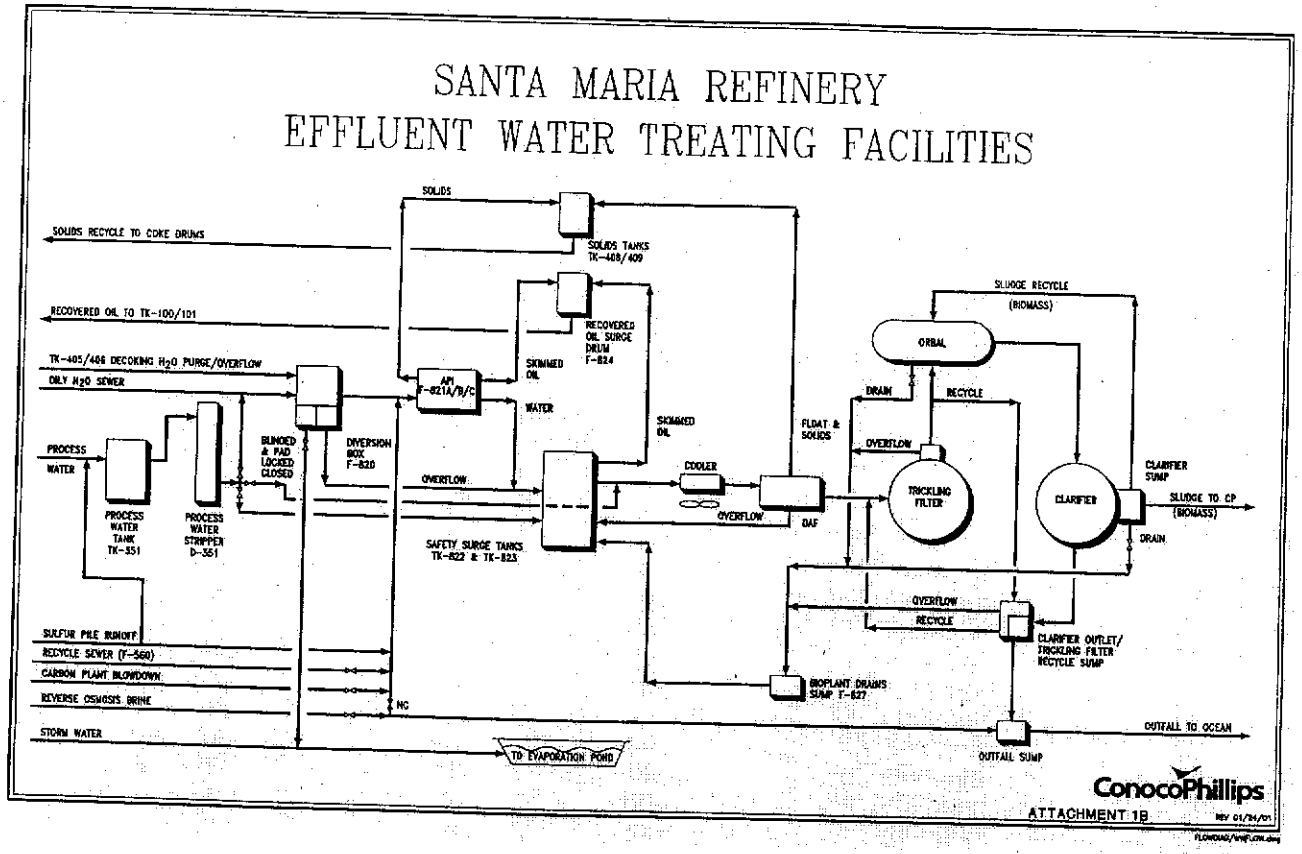
Waste as used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

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

ATTACHMENT B – MAP



ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D –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 and is grounds for enforcement action, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [40 CFR §122.41(a)].

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet 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 Central Coast 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); Wat. Code, §13383]:

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)]; and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location [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, I.G.4, and I.G.5 below [40 CFR §122.41(m)(2)].

3. Prohibition of bypass. Bypass is prohibited, and the Central Coast 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)(i)(A)];

   b. There were no feasible alternatives to the bypass, such as 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)(i)(B)]; and

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

4. The Central Coast Water Board may approve an anticipated bypass, after considering its adverse effects, if the Central Coast 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 (24-hour notice) [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 Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [40 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 Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [40 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)(ii)];

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) [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 Central Coast Water Board. The Central Coast Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code [40 CFR §122.41(l)(3); §122.61].

III. STANDARD PROVISIONS – MONITORING

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

B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order [40 CFR §122.41(j)(4); §122.44(i)(1)(iv)].

IV. STANDARD PROVISIONS – RECORDS

A. **Records Retention.** 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 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 Central Coast 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 Central Coast Water Board, State Water Board, or USEPA within a reasonable time, any information which the Central Coast 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 Central Coast Water Board, State Water Board, or USEPA copies of records required to be kept by this Order [40 CFR §122.41(h); Water Code, §13267].

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Central Coast Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below [40 CFR §122.41(k)].

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

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

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

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

c. The written authorization is submitted to the Central Coast Water Board and State Water Board [40 CFR §122.22(b)(3)].

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Central Coast Water Board and State Water Board 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 Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

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

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order [40 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 Central Coast 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 Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in 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 Central Coast 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)].

3. The Central Coast 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 Central Coast 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 section 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 that are not subject to effluent limitations in this Order [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 Central Coast 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 V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. [40 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 Central Coast Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information [40 CFR §122.41(l)(8)].

VI. STANDARD PROVISIONS – ENFORCEMENT

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

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. **Non-Municipal Facilities.** Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Central Coast 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 Central Coast Water Board in accordance with 40 CFR Section 122.44(f) [40 CFR §122.42(a)(1)(iv)].

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

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

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

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

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

B. **Publicly-Owned Treatment Works (POTWs).** All POTWs shall provide adequate notice to the Central Coast 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)]

3. 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)]

VIII. CENTRAL COAST REGION'S STANDARD PROVISIONS (January 1985)

A. General Permit Conditions

Prohibitions

1. Introduction of "incompatible wastes" to the treatment system is prohibited.

2. Discharge of high-level radiological waste and of radiological, chemical, and biological warfare agents is prohibited.

3. Discharge of "toxic pollutants" in violation of effluent standards and prohibitions established under Section 307(a) of the Clean Water Act is prohibited.

4. Discharge of sludge, sludge digester or thickener supernatant, and sludge drying bed leachate to drainageways, surface waters, or the ocean is prohibited.

5. Introduction of pollutants into the collection, treatment, or disposal system by an "indirect discharger" that:

   a) inhibit or disrupt the treatment process, system operation, or the eventual use or disposal of sludge; or,

   b) flow through the system to the receiving water untreated; and,

   c) cause or "significantly contribute" to a violation of any requirement of this Order, is prohibited.

6. Introduction of "pollutant free" wastewater to the collection, treatment, and disposal system in amounts that threaten compliance with this order is prohibited.

Provisions

7. Collection, treatment, and discharge of waste shall not create a nuisance or pollution, as defined by Section 13050 of the California Water Code.

8. All facilities used for transport or treatment of wastes shall be adequately protected from inundation and washout as the result of a 100-year frequency flood.

9. Operation of collection, treatment, and disposal systems shall be in a manner that precludes public contact with wastewater.

10. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed in a manner approved by the Executive Officer.

11. Publicly owned wastewater treatment plants shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Title 23 of the California Administrative Code.

12. After notice and opportunity for a hearing, this order may be terminated 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 by failure to disclose fully all relevant facts;

    c) a change in any condition or endangerment to human health or environment that requires a temporary or permanent reduction or elimination of the authorized discharge; and,

    d) a substantial change in character, location, or volume of the discharge.

13. Provisions of this permit are severable. If any provision of the permit is found invalid, the remainder of the permit shall not be affected.

14. After notice and opportunity for hearing, this order may be modified or revoked and reissued for cause, including:

    a) Promulgation of a new or revised effluent standard or limitation;

    b) A material change in character, location, or volume of the discharge;

    c) Access to new information that affects the terms of the permit, including applicable schedules;

    d) Correction of technical mistakes or mistaken interpretations of law; and,

    e) Other causes set forth under Sub-part D of 40 CFR Part 122.

15. Safeguards shall be provided to assure maximal compliance with all terms and conditions of this permit. Safeguards shall include preventative and contingency plans and may also include alternative power sources, stand-by generators, retention capacity, operating procedures, or other precautions. Preventative and contingency plans for controlling and minimizing the affect of accidental discharges shall:

    a) identify possible situations that could cause "upset", "overflow" or "bypass", or other noncompliance. (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 describe procedures and steps to minimize or correct any adverse environmental impact resulting from noncompliance with the permit.

16. Physical Facilities shall be designed and constructed according to accepted engineering practice and shall be capable of full compliance with this order when properly operated and maintained. Proper operation and maintenance shall be described in an Operation and Maintenance Manual. Facilities shall be accessible during the wet-weather season.

17. Production and use of reclaimed water is subject to the approval of the Board. Production and use of reclaimed water shall be in conformance with reclamation criteria established in Chapter 3, Title 22, of the California Administrative Code and Chapter 7, Division 7, of the California Water Code. An engineering report pursuant to section 60323, Title 22, of the California Administrative Code is required and a waiver or water reclamation requirements from the Board is required before reclaimed water is supplied for any use, or to any user, not specifically identified and approved either in this Order or another order issued by this Board.

B. General Monitoring Requirements

1. If results of monitoring a pollutant appear to violate effluent limitations based on a weekly, monthly, 30-day, or six-month period, but compliance or non-compliance cannot be validated because sampling is too infrequent, the frequency of sampling shall be increased to validate the test within the next monitoring period. The increased frequency shall be

maintained until the Executive Officer agrees the original monitoring frequency may be resumed.

For example, if copper is monitored annually and results exceed the six-month median numerical effluent limitation in the permit, monitoring of copper must be increased to a frequency of at least once every two months (ref. paragraph F.13.). If suspended solids are monitored weekly and results exceed the weekly average numerical limit in the permit, monitoring of suspended solids must be increased to at least four (4) samples every week (ref. paragraph F.14.).

2. Water quality analyses performed in order to monitor compliance with this permit shall be by a laboratory certified by the State Department of Health Services for the constituent(s) being analyzed. Bioassay(s) performed in order to monitor compliance with this permit shall be in accord with guidelines approved by the State Water Resources Control Board and the State Department of Fish and Game. If the laboratory used or proposed for use by the discharger is not certified by the California Department of Health Services or, where appropriate, the Department of Fish and Game due to restrictions in the State's laboratory certification program, the discharger shall be considered in compliance with this provision provided:

   a) Data results remain consistent with results of samples analyzed by the Central Coast Water Board;

   b) A quality assurance program is used at the laboratory, including a manual containing steps followed in this program that is available for inspections by the staff of the Central Coast Water Board; and,

   c) Certification is pursued in good faith and obtained as soon as possible after the program is reinstated.

3. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Samples shall be taken during periods of peak loading conditions. Influent samples shall be samples collected from the combined flows of all incoming wastes, excluding recycled wastes. Effluent samples shall be samples collected downstream of the last treatment unit and tributary flow and upstream of any mixing with receiving waters.

4. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

C. General Reporting Requirements

1. Reports of marine monitoring surveys conducted to meet receiving water monitoring requirements of the Monitoring and Reporting Program shall include at least the following information:

a) A description of climatic and receiving water characteristics at the time of sampling (weather observations, floating debris, discoloration, wind speed and direction, swell or wave action, time of sampling, tide height, etc.).

b) A description of sampling stations, including differences unique to each station (e.g., station location, grain size, rocks, shell litter, calcareous worm tubes, evident life, etc.).

c) A description of the sampling procedures and preservation sequence used in the survey.

d) A description of the exact method used for laboratory analysis. In general, analysis shall be conducted according to paragraph B.1 above, and Attachment D, Federal Standard Provision III.B. However, variations in procedure are acceptable to accommodate the special requirements of sediment analysis. All such variations must be reported with the test results.

e) A brief discussion of the results of the survey. The discussion shall compare data from the control station with data from the outfall stations. All tabulations and computations shall be explained.

2. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule shall be submitted within 14 days following each scheduled date unless otherwise specified within the permit. If reporting noncompliance, the report shall include a description of the reason, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance. A second report shall be submitted within 14 days of full compliance.

3. The "Discharger" shall file a report of waste discharge or secure a waiver from the Executive Officer at least 180 days before making any material change or proposed change in the character, location, or plume of the discharge.

4. Within 120 days after the discharger discovers, or is notified by the Central Coast Water Board, that monthly average daily flow will or may reach design capacity of waste treatment and/or disposal facilities within four (4) years, the discharger shall file a written report with the Central Coast Water Board. The report shall include:

   a) the best estimate of when the monthly average daily dry weather flow rate will equal or exceed design capacity; and,

   b) a schedule for studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

   In addition to complying with Attachment D, Federal Standard Provision V.B, the required technical report shall be prepared with public participation and reviewed, approved and jointly submitted by all planning and building departments having jurisdiction in the area served by the waste collection, treatment, or disposal facilities.

5. All "Dischargers" shall submit reports to the:

   California Regional Water Quality Control Board
   Central Coast Region
   895 Aerovista Place, Suite 101
   San Luis Obispo, CA 93401-7906

   In addition, "Dischargers" with designated major discharges shall submit a copy of each document to:

   Regional Administrator
   US Environmental Protection Agency, Region 9
   Attention: CWA Standards and Permits Office (WTR-5)
   75 Hawthorne Street
   San Francisco, California 94105

6. Transfer of control or ownership of a waste discharge facility must be preceded by a notice to the Central Coast Water Board at least 30 days in advance of the proposed transfer date. The notice must include a written agreement between the existing "Discharger" and proposed "Discharger" containing specific date for transfer of responsibility, coverage, and liability between them. Whether a permit may be transferred without modification or revocation and reissuance is at the discretion of the Board. If permit modification or revocation and reissuance is necessary, transfer may be delayed 180 days after the Central Coast Water Board's receipt of a complete permit application. Please also see Attachment D, Federal Standard Provision II.C.

7. Except for data determined to be confidential under Section 308 of the Clean Water Act (excludes effluent data and permit applications), all reports prepared in accordance with this permit shall be available for public inspection at the office of the Central Coast Water Board or Regional Administrator of EPA. Please also see Attachment D, Federal Standard Provision IV.C.

8. By January 30th of each year, the discharger shall submit an annual report to the Central Coast Water Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. The discharger shall discuss the compliance record and corrective actions taken, or which may be needed, to bring the discharge into full compliance. The report shall address operator certification and provide a list of current operating personnel and their grade of certification. The report shall inform the Board of the date of the Facility's Operation and Maintenance Manual (including contingency plans as described in Provision A.15.), of the date the manual was last reviewed, and whether the manual is complete and valid for the current facility. The report shall restate, for the record, the laboratories used by the discharger to monitor compliance with effluent limits and provide a summary of performance relative to Section B above, *General Monitoring Requirements*.

   If the facility treats industrial or domestic wastewater and there is no provision for periodic sludge monitoring in the Monitoring and Reporting Program, the report shall include a summary of sludge quantities, analyses of its chemical and moisture content, and its ultimate destination.

If applicable, the report shall also evaluate the effectiveness of the local source control or pretreatment program using the State Water Resources Control Board's "Guidelines for Determining the Effectiveness of Local Pretreatment Programs."

D. General Pretreatment Provisions

1. Discharge of pollutants by "indirect dischargers" in specific industrial sub-categories (appendix C, 40 CFR Part 403), where categorical pretreatment standards have been established, or are to be established, (according to 40 CFR Chapter 1, Subchapter N), shall comply with the appropriate pretreatment standards:

   a) By the date specified therein;

   b) Within three (3) years of the effective date specified therein, but in no case later than July 1, 1984; or,

   c) If a new indirect discharger, upon commencement of discharge.

E. Enforcement

1. Any person failing to file a report of waste discharge or other report as required by this permit shall be subject to a civil penalty not to exceed $5,000 per day.

2. Upon reduction, loss, or failure of the treatment facility, the "Discharger" shall, to the extent necessary to maintain compliance with this permit, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided.

F. Definitions (Not otherwise included in Attachment A to this Order)

1. A "composite sample" is a combination of no fewer than eight (8) individual samples obtained at equal time intervals (usually hourly) over the specified sampling (composite) period. The volume of each individual sample is proportional to the flow rate at the time of sampling. The period shall be specified in the Monitoring and Reporting Program ordered by the Executive Officer.

2. "Daily Maximum" limit means the maximum acceptable concentration or mass emission rate of a pollutant measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling. It is normally compared with results based on "composite samples" except for ammonia, total chlorine, phenolic compounds, and toxicity concentration. For all exceptions, comparisons will be made with results from a "grab sample".

3. "Discharger", as used herein, means, as appropriate: (I) the Discharger, (2) the local sewering entity (when the collection system is not owned and operated by the Discharger), or (3) "indirect discharger" (where "Discharger" appears in the same paragraph as "indirect discharger", it refers to the discharger.)

4. "Duly Authorized Representative" is one where:

   a) the authorization is made in writing by a person described in the signatory paragraph of Attachment D, Federal Standard Provision V.B;

   b) the authorization specifies either an individual or the occupant of a position having either responsibility for the overall operation of the regulated facility, such as the plant manager, or overall responsibility for environmental matters of the company; and,

   c) the written authorization was submitted to the Central Coast Water Board.

5. A "grab sample" is defined as any individual sample collected in less than 15 minutes. "Grab samples" shall be collected during peak loading conditions, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with the daily maximum limits identified in paragraph F.2 and instantaneous maximum limits.

6. "Hazardous substance" means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act.

7. "Incompatible wastes" are:

   a) Wastes which create a fire or explosion hazard in the treatment works;

   b) Wastes which will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5.0 unless the works is specifically designed to accommodate such wastes;

   c) Solid or viscous wastes in amounts which cause obstruction to flow in sewers, or which cause other interference with proper operation of treatment works;

   d) Any waste, including oxygen demanding pollutants (BOD, etc), released in such volume or strength as to cause inhibition or disruption in the treatment works and subsequent treatment process upset and loss of treatment efficiency; and,

   e) Heat in amounts that inhibit or disrupt biological activity in the treatment works or that raise influent temperatures above 40°C (104°F) unless the treatment works is designed to accommodate such heat.

8. "Indirect Discharger" means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.

9. "Log Mean" is the geometric mean. Used for determining compliance of fecal or total coliform populations, it is calculated with the following equation:

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

   in which "n" is the number of days samples were analyzed during the period and any "C" is the concentration of bacteria (MPN/100 ml) found on each day of sampling. "n" should be five or more.

10. "Mass emission rate" is a daily rate defined by the following equations:

    mass emission rate (lbs/day) = 8.34 x Q x C; and,

    mass emission rate (kg/day) = 3.79 x Q x C,

    where "C" (in mg/L) is the measured daily constituent concentration or the average of measured daily constituent concentrations and "Q" (in MGD) is the measured daily flow rate or the average of measured daily flow rates over the period of interest.

11. The "Maximum Allowable Mass Emission Rate," whether for a month, week, day, or six-month period, is a daily rate determined with the formulas in paragraph F.10, above, using the effluent concentration limit specified in the permit for the period and the average of measured daily flows (up to the allowable flow) over the period.

12. "Maximum Allowable Six-Month Median Mass Emission Rate" is a daily rate determined with the formulas in paragraph F.10, above, using the "six-month Median" effluent limit specified in the permit, and the average of measured daily flows (up to the allowable flow) over a 180-day period.

13. "Median" is the value below which half the samples (ranked progressively by increasing value) fall. It may be considered the middle value, or the average of two middle values.

14. "Monthly Average" (or "Weekly Average", as the case may be) is the arithmetic mean of daily concentrations or of daily mass emission rates over the specified 30-day (or 7-day) period

    $$\text{Average} = (X_1 + X_2 + \ldots + X_n) / n$$

    in which "n" is the number of days samples were analyzed during the period and "X" is either the constituent concentration (mg/L) or mass emission rate (kg/day or lbs/day) for each sampled day. "n" should be four or greater.

15. "Municipality" means a city, town, borough, county, district, association, or other public body created by or under state law and having jurisdiction over disposal of sewage, industrial waste, or other waste.

16. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including pumping facilities.

17. "Pollutant-free wastewater" means inflow and infiltration, storm waters, and cooling waters and condensates which are essentially free of pollutants.

18. "Primary Industry Category" means any industry category listed in 40 CFR Part 122, Appendix A.

19. "Removal Efficiency" is the ratio of pollutants removed by the treatment unit to pollutants entering the treatment unit. Removal efficiencies of a treatment plant shall be determined

using "Monthly averages" of pollutant concentrations (C, in mg/L) of influent and effluent samples collected about the same time and the following equation (or its equivalent):

$C_{Effluent}$ Removal Efficiency (%) = 100 x (1 – $C_{effluent}$ / $C_{influent}$)

20. "Severe property damage" means substantial physical damage to property, damage to treatment facilities which causes them to become inoperable, or substantial and permanent loss to natural resources which can reasonably be expected to occur in the absence of a "bypass". It does not mean economic loss caused by delays in production.

21. "Sludge" means the solids, residues, and precipitates separated from, or created in, wastewater by the unit processes of a treatment system.

22. To "significantly contribute" to a permit violation means an "indirect discharger" must:

    a) Discharge a daily pollutant loading in excess of that allowed by contract with the "Discharger" or by Federal, State, or Local law;

    b) Discharge wastewater which substantially differs in nature or constituents from its average discharge;

    c) Discharge pollutants, either alone or in conjunction with discharges from other sources, which results in a permit violation or prevents sewage sludge use or disposal; or

    d) Discharge pollutants, either alone or in conjunction with pollutants from other sources, that increase the magnitude or duration of permit violations.

23. "Toxic Pollutant" means any pollutant listed as toxic under Section 307 (a) (1) of the Clean Water Act or under 40 CFR Part 122, Appendix D. Violation of maximum daily discharge limitations are subject to 24-hour reporting (Attachment D, Federal Standard Provision V.E.).

24. "Zone of Initial Dilution" means the region surrounding or adjacent to the end of an outfall pipe or diffuser ports whose boundaries are defined through calculation of a plume model verified by the State Water Resources Control Board.

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Table of Contents

Attachment E – Monitoring and Reporting Program (MRP) E-2
I. General Monitoring Provisions E-2
II. Monitoring Locations E-3
III. Influent Monitoring Requirements E-3
A. Monitoring Location INF-001 ..... E-3
IV. Effluent Monitoring Requirements E-3
A. Monitoring Location EFF-001 ..... E-3
V. Whole Effluent Toxicity Testing Requirements E-3
VII. Receiving Water & Sediment Monitoring Requirements E-6
A. Bottom Sediment Monitoring E-6
B. Receiving Water Characteristic Monitoring E-6
C. Benthic Biota Monitoring E-8
VIII. Other Monitoring Requirements E-8
A. Outfall Inspection Monitoring E-6
B. Raw Material Feed Monitoring E-9
IX. Reporting Requirements E-9
A. General Monitoring and Reporting Requirements E-10
B. Self Monitoring Reports (SMRs) E-10
C. Discharge Monitoring Reports (DMRs) E-10
D. Other Reports E-12
..... E-13

List of Tables

Table E-1. Monitoring Station Locations E-3
Table E-2. Influent Monitoring E-3
Table E-3. Effluent Monitoring E-4
Table E-4. Approved Tests for Chronic Toxicity E-6
Table E-5. Sediment Monitoring E-7
Table E-6. Receiving Water Characteristic Monitoring E-8
Table E-7. Monitoring Periods and Reporting Schedule E-10

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Coast Water Quality Control Board (Central Coast 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. All reports submitted to the Central Coast Board shall be in hard copy format and digital format using Microsoft Word, Microsoft Excel, or Adobe PDF format, as directed by the Executive Officer. At his discretion, the Executive Officer may direct the Discharger to submit reports in digital format only. At any time during the term of this permit, the State or Central Coast Water Board may require the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWATER QUALITY STANDARDS) Program Web site (http://www.waterboards.ca.gov/ciwater quality standards/index.html). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWATER QUALITY STANDARDS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

B. Laboratories analyzing monitoring samples shall be certified by the Department of Health Services, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

C. Quarterly monitoring reports shall include influent and effluent monitoring data, shall list all violations on a cover transmittal page, and shall discuss the compliance record and corrective actions taken or which may be needed to bring the discharge into full compliance, and shall be submitted by the first day of the second month following the calendar quarter.

D. Annual reports shall be submitted by February 1st of each year. The report shall contain both tabular and graphical summaries of all historical monitoring data collected and obtained during the previous year. The report shall list the laboratories used by the Discharger to monitor compliance with effluent limits and provide a summary of performance relative to section B, General Monitoring Requirements.

E. Unless otherwise specified in this MRP, the Discharger shall follow the Standard Monitoring Procedures described in Appendix III of the Ocean Plan.

F. For all sampling to determine compliance with this Order, the Discharger shall use analytical methods capable of detecting chemicals at the minimum level, as defined in the Ocean Plan. Minimum levels for given analytical methods are provided in Appendix II to the Ocean Plan. The Discharger must report with each sample result the reported minimum level and the laboratory's current method detection limit.

G. The Discharger shall comply with this MRP, including any modifications to it approved by the Executive Officer. The Executive Officer may not diminish the requirements of

the MRP but may require more frequent monitoring or reporting. Based on information submitted to the Central Coast Water Board based on the requirements of this MRP, the Executive Officer may add additional constituents and/or increase monitoring frequencies required by this MRP.

II. MONITORING LOCATIONS.

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

Table E-1. Monitoring Station Locations

Discharge Point No.	Monitoring Location Name	Monitoring Location Description
--	RAW-001	Location that allows for the accurate flow measurement of raw material (liquid hydrocarbons) fed to topping units
--	INF-001	Location that allows for the accurate flow measurement of contact stormwater prior to commingling with process wastewater for treatment
001	EFF-001	Location where representative samples of treated effluent can be obtained prior to discharge to the Pacific Ocean through Discharge Point No. 001
--	REC-001	400 meters upcoast and at the same depth as midpoint of the outfall diffuser
--	REC-002	200 meters upcoast and at the same depth as midpoint of the outfall diffuser
--	REC-003	10 meters upcoast and at the same depth as midpoint of the outfall diffuser
--	REC-004	200 meters downcoast and at the same depth as midpoint of the outfall diffuser
--	REC-005	1,000 meters downcoast and at the same depth as midpoint of the outfall diffuser (this location serves as a reference)

III. INFLUENT MONITORING REQUIREMENTS

A. **Monitoring Location INF-001.** The Discharger shall monitor contact storm runoff at INF-001 as follows:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Metered	Daily[1]

[1] During periods of storm runoff only.

IV. EFFLUENT MONITORING REQUIREMENTS

A. **Monitoring Location EFF-001.** The Discharger shall monitor the total combined effluent at EFF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

Table E-3. Effluent Monitoring

Parameter	Units[1]	Sample Type[2]	Minimum Sampling Frequency
Maximum Daily Flow	MGD	Metered	1/Day
Average Daily Flow	MGD	Metered	1/Day
pH	standard units	Grab	1/Week
Temperature	°F	Grab	1/Week
Settleable Solids	ml/l	Grab	1/Week
Total Suspended Solids	mg/L	Grab	2/Month
Biochemical Oxygen Demand (BOD_5) (5-day @ 20 Deg. C)	mg/L	Grab	1/Quarter
Oil and Grease	mg/L	Grab	1/Week
Ammonia (as N)	mg/L	Grab	1/Month
Total Sulfides	mg/L	Grab	1/Month
Chemical Oxygen Demand (COD)	mg/L	Grab	1/Month
Arsenic	mg/L	Grab[3]	2/Year[6]
Cadmium	mg/L	Grab[3]	2/Year[6]
Chromium VI	mg/L	Grab[3]	2/Year[6]
Copper	mg/L	Grab[3]	2/Year[6]
Lead	mg/L	Grab[3]	2/Year[6]
Mercury	µg/l	Grab[3]	2/Year[6]
Nickel	mg/L	Grab[3]	2/Year[6]
Selenium	mg/L	Grab[3]	2/Year[6]
Silver	mg/L	Grab[3]	2/Year[6]
Zinc	mg/L	Grab[3]	2/Year[6]
Cyanide	mg/L	Grab[3]	2/Year[6]
Total Chlorine Residual	mg/L	Grab[3]	2/Year[6]
Chronic Toxicity[4]	TU_c	Grab[3]	2/Year[6]
Phenolic Compounds (non-chlorinated)	mg/L	Grab[3]	2/Year[6]
Chlorinated Phenolics	mg/L	Grab[3]	2/Year[6]
Endosulfan[5]	µg/l	Grab[3]	2/Year[6]
Endrin	µg/l	Grab[3]	2/Year[6]
HCH[7]	µg/l	Grab[3]	2/Year[6]
Radioactivity	pCi/l	Grab[3]	2/Year[6]
Acrolein	mg/L	Grab[3]	2/Year[6]
Antimony	g/l	Grab[3]	2/Year[6]
Bis(2-chloroethoxy) Methane	mg/L	Grab[3]	2/Year[6]
Bis(2-chloroisopropyl) ether	g/l	Grab[3]	2/Year[6]
Chlorobenzene	mg/L	Grab[3]	2/Year[6]
Chromium (III)	g/l	Grab[3]	2/Year[6]
Di-n-butyl Phthalate	g/l	Grab[3]	2/Year[6]
Dichlorobenzenes[8]	g/l	Grab[3]	2/Year[6]
Diethyl Phthalate	g/l	Grab[3]	2/Year[6]
Dimethyl Phthalate	g/l	Grab[3]	2/Year[6]
4,6-dinitro-2-methylphenol	mg/L	Grab[3]	2/Year[6]
2,4-dinitrophenol	mg/L	Grab[3]	2/Year[6]
Ethylbenzene	g/l	Grab[3]	2/Year[6]
Fluoranthene	mg/L	Grab[3]	2/Year[6]
Hexachlorocyclopentadiene	mg/L	Grab[3]	2/Year[6]
Nitrobenzene	mg/L	Grab[3]	2/Year[6]
Thallium	mg/L	Grab[3]	2/Year[6]
Toluene	g/l	Grab[3]	2/Year[6]
Tributyltin	µg/l	Grab[3]	2/Year[6]
1,1,1-trichloroethane	g/l	Grab[3]	2/Year[6]
1,1,2-trichloroethane	g/l	Grab[3]	2/Year[6]
Acrylonitrile	µg/l	Grab[3]	2/Year[6]

Parameter	Units[1]	Sample Type[2]	Minimum Sampling Frequency
Aldrin	ng/l	Grab[3]	2/Year[6]
Benzene	mg/L	Grab[3]	2/Year[6]
Benzidine	ng/l	Grab[3]	2/Year[6]
Beryllium	µg/l	Grab[3]	2/Year[6]
Bis(2-chloroethyl) Ether	µg/l	Grab[3]	2/Year[6]
Bis(2-ethlyhexyl) Phthalate	mg/L	Grab[3]	2/Year[6]
Carbon Tetrachloride	mg/L	Grab[3]	2/Year[6]
Chlorodane[9]	ng/l	Grab[3]	2/Year[6]
Chlorodibromethane	µg/l	Grab[3]	2/Year[6]
Chloroform	mg/L	Grab[3]	2/Year[6]
DDT[10]	ng/l	Grab[3]	2/Year[6]
1,4-dichlorobenzene	mg/L	Grab[3]	2/Year[6]
3,3'-dichlorobenzidine	µg/l	Grab[3]	2/Year[6]
1,2-dichloroethane	mg/L	Grab[3]	2/Year[6]
1,1-dichloroethylene	mg/L	Grab[3]	2/Year[6]
Dichlorobromomethane	µg/l	Grab[3]	2/Year[6]
Dichloromethane	mg/L	Grab[3]	2/Year[6]
1,3-dichloropropene	mg/L	Grab[3]	2/Year[6]
Dieldrin	ng/l	Grab[3]	2/Year[6]
2,4-dinitrotoluene	mg/L	Grab[3]	2/Year[6]
1,2-diphenylhydrazine	µg/l	Grab[3]	2/Year[6]
Halomethanes[11]	mg/L	Grab[3]	2/Year[6]
Heptachlor	µg/l	Grab[3]	2/Year[6]
Heptachlor Epoxide	µg/l	Grab[3]	2/Year[6]
Hexachlorobenzene	ng/l	Grab[3]	2/Year[6]
Hexachlorobutadiene	mg/L	Grab[3]	2/Year[6]
Hexachloroethane	mg/L	Grab[3]	2/Year[6]
Isophorone	g/l	Grab[3]	2/Year[6]
N-nitrosodimethylamine	mg/L	Grab[3]	2/Year[6]
N-nitrosodi-N-propylamine	mg/L	Grab[3]	2/Year[6]
N-nitrosodiphenylamine	mg/L	Grab[3]	2/Year[6]
PAHs[12]	µg/l	Grab[3]	2/Year[6]
PCBs[13]	ng/l	Grab[3]	2/Year[6]
TCDD equivalents[14]	pg/l	Grab[3]	2/Year[6]
1,1,2,2-tetrachloroethane	g/l	Grab[3]	2/Year[6]
Tetrachloroethylene	mg/L	Grab[3]	2/Year[6]
Toxaphene	ng/l	Grab[3]	2/Year[6]
Trichloroethylene	mg/L	Grab[3]	2/Year[6]
2,4,6-trichlorophenol	µg/l	Grab[3]	2/Year[6]
Vinyl Chloride	mg/L	Grab[3]	2/Year[6]

[1] Mass emissions shall be calculated and reported for all parameters with mass-based effluent limitations using the formula: lbs/day = 8.34 (daily average flow)(concentration as mg/L)
[2] Samples shall be analyzed in accordance with 40 CFR Part 136.
[3] Samples shall be analyzed using the minimum levels specified in Appendix II of the Ocean Plan, and using the standard monitoring procedures specified in Appendix III of the Ocean Plan.
[4] As defined in Attachment A to the Order. See Section V of this MRP for additional monitoring requirements.
[5] The sum of endosulfan-alpha and endosulfan-beta and endosulfan sulfate.
[6] Sampling shall be performed in April and October. As allowed under Provision III.G.2 of the Ocean Plan, if any of these constituents do not significantly occur in the effluent, the Executive Officer may allow the constituents to be excluded form the Effluent Monitoring Program. This allowance is conditioned on the Discharger submitting an annual certification (28th of February) that the constituents being excluded from effluent monitoring are not present in the effluent. Minimum sampling and analyzing frequency shall be semi-annually for those constituents which are shown by laboratory analysis to be present in the discharge.
[7] The sum of alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.
[8] The sum of 1,2- and 1,3-dichlorobenzene.

[9] The sum of chlordane-alpha, chlordane-gamma, chlordane-alpha, chordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.
[10] The sum of 4,4'-DDT; 2,4'-DDT; 4,4'-DDE; 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.
[11] The sum of bromoform, bromomethane, and chloromethane.
[12] Polynuclear Aromatic Hydrocarbons - The sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo[a]pyrene; chrysene; dibenzo[a,h]anthracene; fluorene; indeno[1,2,3-cd]pyrene; phenanthrene; and pyrene.
[13] Polychlorinated Biphenyls – The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
[14] The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as summarized in Appendix I of the Ocean Plan.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

The following tests shall be used to measure chronic toxicity (TU_c). Other tests may be added to the list when approved by the State Water Board.

Table E-4. Approved Tests for Chronic Toxicity

Species	Test	Tier [1]	Reference [2]
giant kelp, *Macrocystis pyrifera*	Percent Germination; Germ Tube Length	1	a, c
red abalone, *Haliotis rufescens*	Abnormal Shell Development	1	a, c
oyster, *Crassostrea gigas*; mussels, *Mytilus spp.*	Abnormal Shell Development; Percent Survival	1	a, c
urchin, *Strongylocentrotus purpuratus*; sand dollar, *Dendraster excentricus*	Percent Normal Development	1	a, c
urchin, *Strongylocentrotus purpuratus*; sand dollar, *Dendraster excentricus*	Percent Fertilization	1	a, c
shrimp, *Homesimysis costata*	Percent Survival; Growth	1	a, c
shrimp, *Mysidopsis bahia*	Percent Survival; Fecundity	2	b, d
topsmelt, *Atherinops affinis*	Larval Growth Rate; Percent Survival	1	a, c
Silversides, *Menidia beryllina*	Larval Growth Rate; Percent Survival	2	b, d

[1] First tier methods are preferred for compliance monitoring. If first tier organisms are not available, the Discharger can use a second tier test method following approval by the Central Coast Water Board.
[2] Protocol References:

a. Chapman, G.A., D.L. Denton, and J.M. Lazorchak. 1995. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms.* USEPA Report No. EPA/600/R-95/136.
b. Klemm, D.J., G.E. Morrison, T.J. Norberg-King, W.J. Peltier, and M.A. Heber. 1994. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Marine and Estuarine Organisms.* USEPA Report No. EPA-600-4-91-003.
c. SWRCB 1996. *Procedures Manual for Conducting Toxicity Tests Developed by the Marine Bioassay Project.* 96-1WQ.
d. Weber, C.I., W.B. Horning, I.I., D.J. Klemm, T.W. Nieheisel, P.A. Lewis, E.L. Robinson, J. Menkedick and F. Kessler 9eds). 1998. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms.* EPA/600/4-87/028. National Information Service, Springfield, VA.

VII. RECEIVING WATER & SEDIMENT MONITORING REQUIREMENTS

A. Bottom Sediment Monitoring.

1. Ocean bottom sediment in the vicinity of the outfall diffuser for Discharge Point No. 001 shall be monitored at monitoring stations REC-001 through REC-005 as follows:

Table E-5. Sediment Monitoring

Parameter	Unit	Minimum Sampling Frequency
Sediment Sulfides (reactive and refractory)	mg/kg	Once during 2011
Particle Size Distribution (% retained on #200 sieve)	--	Once during 2011
BOD_5	mg/kg	Once during 2011
COD	mg/kg	Once during 2011
Cadmium	mg/kg	Once during 2011
Total Chromium	mg/kg	Once during 2011
Copper	mg/kg	Once during 2011
Lead	mg/kg	Once during 2011
Mercury	mg/kg	Once during 2011
Nickel	mg/kg	Once during 2011
Silver	mg/kg	Once during 2011
Vanadium	mg/kg	Once during 2011
Zinc	mg/kg	Once during 2011
Total Kjeldahl Nitrogen	mg/kg	Once during 2011
Ammonia (as N)	mg/kg	Once during 2011
Nitrate	mg/kg	Once during 2011
Total organic carbon	mg/kg	Once during 2011
Aromatic hydrocarbons	mg/kg	Once during 2011
Oil and grease	mg/kg	Once during 2011

2. The following procedures shall be carried out for sampling and analyzing ocean bottom sediments:

   a. The contractor shall locate and mark the mid-point of the outfall diffuser before beginning station locations and sampling. Reliance on charts, as built plans, etc., is not sufficient.

   b. A reference station has been selected in an area which should provide similar sediments at the same depth as monitoring locations REC-001 through REC-004. Any change in station location changes shall be reported with the laboratory results.

   c. Duplicate samples shall be taken at each fixed station and shall be analyzed and reported separately. Samples may be taken either by divers using non-contaminating samplers or by a surface operated grab sampler, which will obtain a undisturbed sediment sample. If the surface operated grab sampler is utilized, a subsample, uncontaminated by the sampler, should be taken from the grab.

   d. The top 5 centimeters (cm) of material from the grab samples shall be used for analyses. Enough cores shall be taken at each station to provide sufficient sediment material for the required duplicate analyses.

   e. Samples shall be stored immediately between 2 and 4°C onboard the ship and shall remain at that temperature until ready to be analyzed. The sulfide sample must be additionally preserved with 2 milliliters (ml) of zinc acetate. The complete preservation sequence and holding times for each analysis shall be described in the final report.

f. In order to obtain an estimate of metal concentrations more representative of the biologically available fraction of metals, sediment metal concentrations shall be determined by a weak acid leachable extract (WAL). In this method, sediment samples are oven-dried (60°C for 24 hours), weighed and subjected to WAL extraction in 1 N HCl (GFS, redistilled) at ambient temperature for 24 hours (5 gram dry weight per 50 ml HCl). The leachate is centrifuged at 2,500 RPM for 15 minutes and the supernatant quantitatively diluted to final volume (100 ml). Results are then normalized to 100 um fraction and below. Sediment metal concentrations are expressed as µg metal normalized to gram salt-free dry weight.

g. The results of the monitoring shall be summarized and submitted February 1, 2010. The results shall include a statistical analysis of the results compared to the monitoring results for Order No. R3-2002-0010 (previous Order). The statistical analysis shall indicate if any statistically significant changes have been identified in the sediment. Further, the report shall determine if the samples from monitoring locations REC-001 through REC-004 differ significantly statistically from that of the reference station (REC-005). The report shall include a complete discussion of the survey results and possible influence of the outfall on the ocean bottom sediment.

B. Receiving Water Characteristic Monitoring

1. Receiving Water Characteristic Monitoring shall be conducted once in the life of the permit, during the year 2011 at monitoring locations REC-001 through REC-005:

Table E-6. Receiving Water Characteristic Monitoring

Determination	Units	Type of Sample
Salinity	Practical salinity units	Grab [1]
Temperature	°C	Grab [1]
Depth	Feet	Grab [1]

[1] At 1-meter intervals, surface to bottom.

2. The results of the receiving water characteristic monitoring shall be submitted to the Central Coast Water Board in conjunction with the Discharger's application to renew the permit by March 7, 2012.

C. Benthic Biota Monitoring

1. Benthic biota shall be monitored at monitoring locations REC-001 through REC-005 as follows:

a. At least five benthic samples will be taken at each sediment monitoring station (REC-001 through REC-005). The samples shall be taken by mechanical grab or qualified diver biologists utilizing three-pound coffee cans or equivalent containers with both ends cut out. The cans are to be pushed into the sediment full length, the top capped, surrounding sediment dug away, and the bottom capped. Monitoring shall be conducted during 2011.

b. The sample shall be processed by washing it through a 1 mm sieve.

c. The sample should then be preserved in 10 percent buffered formalin or 75 percent alcohol. The material may be stained with Rose Bengal.

d. Coelenterates, polychaetes, mascrocrustaceans, mollusks, ectoprocts, echinoderms, and algae shall be identified to species or at least to genus. All others shall be identified to the lowest taxon possible. All specimens shall be counted to provide information on abundance. Species abundance lists shall be presented with data reduced to standard area (square meter) and standard volume (liter).

e. For data from each sampling period, the following basic statistical analyses shall, as a minimum, be performed and reported:

   1) The mean, median, range, standard deviation, and 95 percent confidence limits of the species abundance data reduced to standard area and volume.

   2) Information theory species diversity index value for each replicate sample at each station and for the station as a whole (i.e., pooling data from all replicates for the station during one survey). In addition, the station mean, range, and standard deviation shall be calculated from the replicate index values.

f. The names and qualifications of persons identifying this material shall be indicated in all data reports. Further, type collections shall be established and verified by recognized experts for the various groups. All material shall be saved and stored for future reference. Material can be discharged after 4 years.

g. The final report on community analyses shall be submitted by March 7, 2012 and include a complete discussion of survey results and possible influence of the outfall on the marine communities in the study area. The discussion should be based on statistical evidence developed in item 5, above, and on similarity analysis and cluster analysis of natural community variation including the effects of different oceanic seasons and water temperatures, which could influence the validity of study results.

VIII. OTHER MONITORING REQUIREMENTS

A. **Outfall Inspection Monitoring.** The entire outfall structure shall be inspected annually for its structural integrity and findings summarized in the annual report.

B. **Raw Material Feed Monitoring.** The volume of liquid hydrocarbons fed to the topping units shall be measured daily via a meter.

IX. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Central Coast Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWATER QUALITY STANDARDS) Program Web site (http://www.waterboards.ca.gov/ciwater quality standards/index.html). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWATER QUALITY STANDARDS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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

Table E-7. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	September 7, 2007	All	First day of second calendar month following month of sampling
1/Hour	September 7, 2007	Hourly	First day of second calendar month following month of sampling
1/Day	September 7, 2007	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	First day of second calendar month following month of sampling
1/Week	September 9, 2007	Sunday through Saturday	First day of second calendar month following month of sampling
1/Month	October 1, 2007	1st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
1/Quarter	October 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
2/Year	January 1, 2008	January 1 through June 30 July 1 through December 31	First day of second calendar month following month of sampling
1/Year	January 1, 2008	January 1 through December 31	February 1
1 / 5 years	July 1 through September 30, 2010	July 1 through September 30, 2010	February 1, 2010

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

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

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

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

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

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

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

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

   a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance

with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWATER QUALITY STANDARDS. When electronic submittal of data is required and CIWATER QUALITY STANDARDS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

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

c. SMRs must be submitted to the Central Coast Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

   Central Coast Water Quality Control Board
   895 Aerovista Place, Suite 101
   San Luis Obispo, CA 93401

d. An Annual Self Monitoring Report shall be due on February 1 following each calendar year and shall include all information described in Central Coast Region's Standard Provision C.16, including (but not limited to):

   - All data required by this MRP for the corresponding monitoring period, including appropriate calculations to verify compliance with effluent limitations.

   - A discussion of any incident of non-compliance and corrective actions taken.

C. Discharge Monitoring Reports (DMRs)

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

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

Standard Mail	FedEx/UPS/ Other Private Carriers
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15th Floor Sacramento, CA 95814

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 will not be accepted unless they follow the exact same format of EPA Form 3320-1.

D. Other Reports

1. The Discharger shall report the results of any TRE required by Special Provisions – VI.C.2.a of this Order within 15 days after the completion of the TRE.

ATTACHMENT F – FACT SHEET

Table of Contents

Attachment F – Fact Sheet F-3
I. Permit Information F-3
II. Facility Description F-4
A. Description of Wastewater and Biosolids Treatment or Controls F-5
B. Discharge Points and Receiving Waters F-5
C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data F-5
D. Compliance Summary F-9
E. Planned Changes. Not applicable at this time. F-9
III. Applicable Plans, Policies, and Regulations F-9
A. Legal Authorities. F-10
B. California Environmental Quality Act (CEQA). F-10
C. State and Federal Regulations, Policies, and Plans F-10
D. Impaired Water Bodies on CWA 303(d) List F-11
IV. Rationale For Effluent Limitations and Discharge Specifications F-11
A. Discharge Prohibitions F-12
B. Technology-Based Effluent Limitations F-12
1. Scope and Authority F-12
2. Applicable Technology-Based Effluent Limitations F-13
C. Water Quality-Based Effluent Limitations (WQBELs) F-15
1. Scope and Authority F-15
2. Applicable Beneficial Uses and Water Quality Criteria and Objectives F-15
3. Determining the Need for WQBELs F-16
4. WQBEL Calculations F-18
5. Whole Effluent Toxicity (WET) F-24
D. Final Effluent Limitations F-25
E. Interim Effluent Limitations F-31
F. Land Discharge Specifications F-31
G. Reclamation Specifications F-31
V. Rationale for Receiving Water Limitations F-31
A. Surface Water F-31
B. Groundwater F-31
VI. Rationale for Monitoring and Reporting Requirements F-32
A. Influent Monitoring F-32
B. Effluent Monitoring F-32
C. Whole Effluent Toxicity Testing Requirements F-32
D. Receiving Water Monitoring F-32
E. Other Monitoring Requirements F-33
VII. Rationale for Provisions F-33
A. Standard Provisions F-33
B. Special Provisions F-33
1. Reopener Provisions F-34
2. Special Studies and Additional Monitoring Requirements F-34
3. Best Management Practices and Pollution Prevention F-35
4. Construction, Operation, and Maintenance Specifications F-35
5. Special Provisions for Municipal Facilities (POTWs Only) F-35

6. Other Special Provisions. Not applicable. F-35
7. Compliance Schedules F-35
VIII. Public Participation F-35
A. Notification of Interested Parties F-35
B. Written Comments F-35
C. Public Hearing F-36
D. Waste Discharge Requirements Petitions F-36
E. Information and Copying F-36
F. Register of Interested Persons F-36
G. Additional Information F-36

List of Tables

Table F-1. Facility Information F-3
Table F-2. Facility Wastewaters F-4
Table F-3. Historic Effluent Limitations and Monitoring Data F-5
Table F-4. Ocean Plan Beneficial Uses F-11
Table F-5. Reported Production Level F-13
Table F-6. Summary of Technology-based Effluent Limitations F-14
Table F-7. Storm Runoff Credits. F-14
Table F-8. Pollutants Having Background Concentrations F-18
Table F-9. Ocean Plan Water Quality Objectives for Arsenic F-19
Table F-10. Summary of WQBELs for the Protection of Marine Life When Effluent Flow is Equal to or Less Than 0.285 MGD F-20
Table F-11. Summary of WQBELs for the Protection of Marine Life When Effluent Flow is Equal to or Less Than 0.575 MGD F-21
Table F-12. Summary of WQBELs of Human Health F-21
Table F-13. Summary of Technology-based Effluent Limitations F-26
Table F-14. Storm Runoff Credits. F-26
Table F-15. Summary of Effluent Limitations When Effluent Flow is Equal to or Less Than 0.285 MGD F-27
Table F-16. Summary of Effluent Limitations When Effluent Flow is Greater Than 0.285 MGD F-28
Table F-17. Summary of Monthly Average Effluent Limitations F-28

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.

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	**3402006002**
Discharger	**ConocoPhillips Company**
Name of Facility	**Santa Maria Facility**
Facility Address	**2555 Willow Road**
	Arroyo Grande, CA 93420
	San Luis Obispo County
Facility Contact, Title and Phone	**Kristen Kopp, Supervisor Health, Environment and Regulatory Compliance, (805) 343-3241**
Authorized Person to Sign and Submit Reports	**Kristen, Kopp, Supervisor Health, Environment and Regulatory Compliance, (805) 343-3241**
Mailing Address	**2555 Willow Road, Arroyo Grande, CA 93420**
Billing Address	**2555 Willow Road, Arroyo Grande, CA 93420**
Type of Facility	**Petroleum Refining (SIC Code #'s 2911 and 2999)**
Major or Minor Facility	**Major**
Threat to Water Quality	**II**
Complexity	**A**
Pretreatment Program	**NA**
Reclamation Requirements	**NA**
Facility Permitted Flow	**0.729 million gallons per day (MGD)**
Facility Design Flow	**0.729 MGD**
Watershed	**Arroyo Grande**
Receiving Water	**Pacific Ocean**
Receiving Water Type	**Ocean waters**

A. ConocoPhillips Company (hereinafter Discharger) is the owner and operator of the Santa Maria Facility (hereinafter Facility), a petroleum refining facility. For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The Facility discharges wastewater to the Pacific Ocean, a water of the United States, and is currently regulated by Order R3-2002-0010, which was adopted on May 2, 2002,

and expired on April 19, 2007. The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order.

C. The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDR) and National Pollutant Discharge Elimination System (NPDES) permit on September 29, 2006. Central Coast Water Board staff visited the site on November 8, 2006, to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

The Facility is a petroleum refinery with an annual average rate capacity of 44,440 barrels per day. The Facility produces five different products: gas, oil, naphtha, petroleum coke, sulfur, and fuel gas. The facility location is depicted on Attachment B of the Order. Adjacent to the refinery, a Carbon Plant operates a petroleum coke calcining plant. Products from this plant include green coke, calcined coke, and pelletized sulfur. Discharges from the Carbon Plant are regulated by agreement separate from this permit.

The Facility operates 24 hours per day, 365 days a year, with the exception of maintenance shutdowns. In the report of waste discharge submitted by the Discharger on September 29, 2006, the Discharger reported the following wastewaters are typically treated and discharged from the Facility during dry weather:

Table F-2. Facility Wastewaters

Source	Typical volume, gallons per minute (gallons per day)
Source water treatment (filter backwash, zeolite softener regeneration, and reverse osmosis reject brine)	100 (144,000)
Lab and shop drains	1 (1,440)
Boiler blowdown	8 (11,520)
Steam condensate	47 (67,680)
Storm surface collection drains	115 (165,600)
Storm surface collection sump	<1 (<1,440)
Washdown water for all units	90 (129,600)
Carbon plant sources	<1 (<1,440)
Sulfur pile runoff	4 (5,760)
Cooling tower bleed off	50 (72,000)
Remediation water for off-site underground storage tanks	<1 (<1,440)
Coke cooling and cutting purge water	13 (18,720)
Crude storage tank drainage	<0.1 (<144)
Sulfur complex sulfinol/modified stretford solution	<1 (<1,440)
Process water from vacuum distillation, crude distillation, & coker distillation	128 (184,320)

Actual measured dry weather process water flows into the treatment system are approximately 279 gpm (0.40 MGD). Typical dry weather discharge flows from the treatment system to the outfall sump are 266 gpm (0.38 MGD). Typical wet weather discharge flows from the treatment system to the outfall are reported to be approximately

406 gpm (0.58 MGD). Oil is recovered from the wastewater and contact stormwater during treatment.

A. Description of Wastewater and Biosolids Treatment or Controls

The Facility maintains two separate collection systems for contact and non-contact stormwater. Process water and precipitation runoff from the oil storage tank dikes and the operating units are collected in the process water sewer system and flow by gravity to an effluent treatment plant. The effluent treatment plant includes three API oil/water separators, two surge tanks, dissolved air flotation, a trickling filter, an Orbal aeration system, and a secondary clarifier. Average of discharge flows for the years 2002, 2003, 2004, and 2005 is 0.381 MGD.

Precipitation runoff from streets and unimproved areas, not subject to oil spills, is collected in a non-contact stormwater sewer system and flows by gravity to an evaporation pond. This non-contact stormwater is not discharged to the receiving water. Sludge generated during the treatment processes is recycled at the coking facility.

B. Discharge Points and Receiving Waters

1. The Facility is located in Sections 8 and 17, T12N, R35W, SB B&M, Oceano Quadrangle as shown in Attachment B to this Order.

2. Treated industrial wastewater is discharged at Discharge Point No. 001 to the Pacific Ocean, a water of the United States, through a 1,700 foot outfall/diffuser system in approximately 27 feet of water. The outfall terminates at a latitude 35° 02' 37" N and longitude 120° 38' 21" W. The minimum initial dilution (seawater:effluent) of the outfall is 83:1 at a flowrate of 0.285 MGD, and 68:1 at a flow rate of 0.575 MGD.

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

Effluent limitations contained in the existing Order for discharges from Discharge Point No. 001 to the Pacific Ocean (Monitoring Location EFF-001) and representative monitoring data from the term of the previous Order are as follows:

Table F-3. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitations				Range of reported values 1/02 to 12/05
		30-Day Average	6-Month Median	Daily Maximum	Instantaneous Maximum	
Biochemical Oxygen Demand (BOD_5) (5-day @ 20 Deg. C)	lbs/day	204	--	367	--	22.0 – 31.3
Total Suspended Solids (TSS)	lbs/day	163	--	256	--	19 - 209
Chemical Oxygen Demand (COD)	lbs/day	1430	--	2750	--	259 - 1639
Oil and Grease	lbs/day	59.4	--	111	--	3.98[1] – 38.2
Phenolic Compounds	lbs/day	1.06	--	4.40	--	0.029 – 0.27
Ammonia (as N)	lbs/day	220	--	290	--	0.41 – 9.3

Parameter	Units	Effluent Limitations				Range of reported values 1/02 to 12/05
		30-Day Average	6-Month Median	Daily Maximum	Instantaneous Maximum	
Sulfide	lbs/day	1.08	--	2.41	--	<0.1 - <0.668
Total Chromium	lbs/day	1.26	--	3.60	--	0.0001 – 0.0002[1]
Hexavalent Chromium	lbs/day	0.102	--	0.230	--	<0.0016 – <0.0331
pH	units	--	--	--	6.0-9.0[2]	6.42 – 8.6
Arsenic[3]	mg/L	--	0.42	2.44	6.47	ND – 0.0196
Arsenic[4]	mg/L	--	0.35	2.00	5.32	ND – 0.0196
Cadmium[3]	mg/L	--	0.08	0.34	0.84	ND
Cadmium[4]	mg/L	--	0.07	0.28	0.69	ND
Chromium (VI)[3]	mg/L	--	0.17	0.67	1.68	
Chromium (VI)[4]	mg/L	--	0.14	0.55	1.38	
Copper[3]	mg/L	--	0.09	0.84	2.35	0.002[1] - 0.022
Copper[4]	mg/L	--	0.07	0.69	1.93	0.002[1] - 0.022
Lead[3]	mg/L	--	0.17	0.67	1.68	ND – 0.0016
Lead[4]	mg/L	--	0.14	0.55	1.38	ND – 0.0016
Mercury[3]	µg/L	--	3.32	13.40	33.56	ND – 0.22
Mercury[4]	µg/L	--	2.73	11.01	27.57	ND – 0.22
Nickel[3]	mg/L	--	0.42	1.68	4.20	ND – 0.0085[1]
Nickel[4]	mg/L	--	0.35	1.38	3.45	ND – 0.0085[1]
Selenium[3]	mg/L	--	1.26	5.04	12.60	0.056[1] – 0.35
Selenium[4]	mg/L	--	1.04	4.14	10.35	0.056[1] – 0.35
Silver[3]	mg/L	--	0.06	0.22	0.57	ND
Silver[4]	mg/L	--	0.05	0.18	0.47	ND
Zinc[3]	mg/L	--	1.02	6.06	16.14	ND – 0.074
Zinc[4]	mg/L	--	0.84	4.98	13.26	ND – 0.074
Cyanide[3]	mg/L	--	0.08	0.34	0.84	ND – 0.028
Cyanide[4]	mg/L	--	0.07	0.28	0.69	ND – 0.028
Total Chlorine Residual[3]	mg/L	--	0.17	0.67	5.04	ND – 0.1
Total Chlorine Residual[4]	mg/L	--	0.14	0.55	4.14	ND – 0.1
Ammonia (as N)[3]	mg/L	--	50.40	201.60	504.00	0.27 – 2.5
Ammonia (as N)[4]	mg/L	--	41.40	165.60	414.00	0.27 – 2.5
Chronic Toxicity[3]	TU_c	--	NA	84.00	NA	55.56
Chronic Toxicity[4]	TU_c	--	NA	69.00	NA	55.56
Phenolic Compounds (non-chlorinated)[3]	mg/L	--	2.52	10.08	25.20	ND
Phenolic Compounds (non-chlorinated)[4]	mg/L	--	2.07	8.28	20.70	ND
Chlorinated Phenolics[3]	mg/L	--	0.08	0.34	0.84	ND
Chlorinated Phenolics[4]	mg/L	--	0.07	0.28	0.69	ND
Endosulfan[3]	µg/L	--	0.76	1.51	2.27	[5]
Endosulfan[5]	µg/L	--	0.62	1.24	1.86	[5]
Endrin[3]	µg/L	--	0.17	0.34	0.50	[5]
Endrin[4]	µg/L	--	0.14	0.28	0.41	[5]
HCH[3]	µg/L	--	0.34	0.67	1.01	[5]
HCH[4]	µg/L	--	0.28	0.55	0.83	[5]
Acrolein[3]	mg/L	18.48	--	--	--	ND
Acrolein[4]	mg/L	15.18	--	--	--	ND
Antiomony[3]	mg/L	100.8	--	--	--	ND – 0.036[1]
Antimony[4]	mg/L	82.80	--	--	--	ND – 0.036[1]
Bis(2-chloroethoxy) Methane[3]	mg/L	0.3696	--	--	--	ND

Parameter	Units	Effluent Limitations				Range of reported values 1/02 to 12/05
		30-Day Average	6-Month Median	Daily Maximum	Instantaneous Maximum	
Bis(2-chloroethoxy) Methane[4]	mg/L	0.304	--	--	--	ND
Bis(2-chloroisopropyl) Ether[3]	mg/L	100.8	--	--	--	ND
Bis(2-chloroisopropyl) Ether[4]	mg/L	82.800	--	--	--	ND
Chlorobenzene[3]	mg/L	47.88	--	--	--	ND
Chlorobenzene[4]	mg/L	39.330	--	--	--	ND
Chromium (III)[3]	g/L	15.96	--	--	--	ND
Chromium (III)[4]	g/L	13.110	--	--	--	ND
Di-n-butyl Phthalate[3]	mg/L	294	--	--	--	ND
Di-n-butyl Phthalate[4]	mg/L	241.500	--	--	--	ND
Dichlorobenzenes[3]	mg/L	428.4	--	--	--	ND
Dichlorobenzenes[4]	mg/L	351.900	--	--	--	ND
Diethyl Phthalate[3]	mg/L	2,772	--	--	--	ND
Diethyl Phthalate[4]	mg/L	2,277.000	--	--	--	ND
Dimethyl Phthalate[3]	g/L	68.88	--	--	--	ND
Dimethyl Phthalate[4]	g//L	56.580	--	--	--	ND
4,6-Dinitro-2-methylphenol[3]	mg/L	18.48	--	--	--	ND
4,6-Dinitro-2-methylphenol[4]	mg/L	15.180	--	--	--	ND
2,4-Dinitrophenol[3]	mg/L	0.336	--	--	--	ND
2,4-Dinitrophenol[4]	mg/L	0.276	--	--	--	ND
Ethylbenzene[3]	mg/L	344.4	--	--	--	ND
Ethylbenzene[4]	mg/L	282.900	--	--	--	ND
Fluoranthene[3]	mg/L	1.26	--	--	--	ND
Fluoranthene[4]	mg/L	1.035	--	--	--	ND
Hexachlorocyclopent-adiene[3]	mg/L	4.872	--	--	--	ND
Hexachlorocyclopent-adiene[4]	mg/L	4.002	--	--	--	ND
Nitrobenzene[3]	mg/L	0.4116	--	--	--	ND
Nitrobenzene[4]	mg/L	0.338	--	--	--	ND
Thallium[3]	mg/L	0.168	--	--	--	ND – 0.0001[1]
Thallium[4]	mg/L	0.138	--	--	--	ND – 0.0001[1]
Toluene[3]	g/L	7.14	--	--	--	ND
Toluene[4]	g/L	5.865	--	--	--	ND
Tributyltin[3]	µg/L	0.1176	--	--	--	ND
Tributyltin[4]	µg/L	0.097	--	--	--	ND
1,1,1-Trichloroethane[3]	g/L	45.36	--	--	--	ND
1,1,1-Trichloroethane[4]	g/L	37.26	--	--	--	ND
Acrylonitrile[3]	µg/L	8.4	--	--	--	ND
Acrylonitrile[4]	µg/L	6.900	--	--	--	ND
Aldrin[3]	ng/L	1.848	--	--	--	ND
Aldrin[4]	ng/L	1.518	--	--	--	[5]
Benzene[3]	µg/L	495.6	--	--	--	[5]
Benzene[4]	µg/L	407.100	--	--	--	ND
Benzidine[3]	µg/L	0.005796	--	--	--	ND
Benzidine[4]	µg/L	0.005	--	--	--	ND
Beryllium[3]	µg/L	2.772	--	--	--	ND

Parameter	Units	Effluent Limitations				Range of reported values 1/02 to 12/05
		30-Day Average	6-Month Median	Daily Maximum	Instantaneous Maximum	
Beryllium[4]	µg/L	2.277	--	--	--	ND
Bis(2-chloroethyl) Ether[3]	µg/L	3.78	--	--	--	ND
Bis(2-chloroethyl) Ether[4]	µg/L	3.105	--	--	--	ND
Bis(2-ethylhexyl) Phthalate[3]	µg/L	294	--	--	--	ND
Bis(2-ethylhexyl) Phthalate[4]	µg/L	241.500	--	--	--	ND
Carbon Tetrachloride[3]	µg/L	75.6	--	--	--	ND
Carbon Tetrachloride[4]	µg/L	62.100	--	--	--	ND
Chlordane[3]	ng/L	1.932	--	--	--	ND
Chlordane[4]	ng/L	1.587	--	--	--	[5]
Chlorodibromo-methane[3]	µg/L	722.4	--	--	--	[5]
Chlorodibromo-methane[4]	µg/L	593.400	--	--	--	ND
Chloroform[3]	µg/L	10,920	--	--	--	ND
Chloroform[4]	µg/L	8,970.000	--	--	--	ND
DDT[3]	ng/L	14.28	--	--	--	ND
DDT[4]	ng/L	11.730	--	--	--	[5]
1,4-Dichlorobenzene[3]	µg/L	1512	--	--	--	[5]
1,4-Dichlorobenzene[4]	µg/L	1,242.000	--	--	--	ND
3,3-Dichlorobenzidine[3]	µg/L	0.6804	--	--	--	ND
3,3-Dichlorobenzidine[4]	µg/L	0.559	--	--	--	ND
1,2-Dichloroethane[3]	mg/L	2.352	--	--	--	ND
1,2-Dichloroethane[4]	mg/L	1.932	--	--	--	ND
1,1-Dichloroethylene[3]	mg/L	0.0756	--	--	--	ND
1,1-Dichloroethylene[4]	mg/L	0.062	--	--	--	ND
Dichlorobromo-methane[3]	mg/L	0.5208	--	--	--	ND
Dichlorobromo-methane[4]	mg/L	0.428	--	--	--	ND
Dichloromethane[3]	mg/L	37.8	--	--	--	ND
Dichloromethane[4]	mg/L	31.050	--	--	--	ND – 0.00032[1]
1,3-Dichloropropene[3]	mg/L	0.7476	--	--	--	ND – 0.00032[1]
1,3-Dichloropropene[4]	mg/L	0.614	--	--	--	ND
Dieldrin[3]	ng/L	3.36	--	--	--	ND
Dieldrin[4]	ng/L	2.760	--	--	--	[5]
2,4-Dinitrotoluene[3]	µg/L	218.4	--	--	--	[5]
2,4-Dinitrotoluene[4]	µg/L	179.400	--	--	--	ND
1,2-Diphenylhydrazine[3]	µg/L	13.44	--	--	--	ND
1,2-Diphenylhydrazine[4]	µg/L	11.040	--	--	--	ND
Halomethanes[3]	mg/L	10.92	--	--	--	ND
Halomethanes[4]	mg/L	8.970	--	--	--	ND
Heptachlor[3]	µg/L	0.0042	--	--	--	ND
Heptachlor[4]	µg/L	0.003	--	--	--	[5]
Heptachlor Epoxide[3]	µg/L	0.00168	--	--	--	[5]
Heptachlor Epoxide[4]	µg/L	0.001	--	--	--	[5]
Hexachlorobenzene[3]	ng/L	17.64	--	--	--	[5]
Hexachlorobenzene[4]	ng/L	14.490	--	--	--	ND
Hexachlorobutadiene[3]	µg/L	1176	--	--	--	ND
Hexachlorobutadiene[4]	µg/L	966.000	--	--	--	ND
Hexachloroethane[3]	µg/L	210	--	--	--	ND
Hexachloroethane[4]	µg/L	172.500	--	--	--	ND
Isophorone[3]	g/L	0.06132	--	--	--	ND

Parameter	Units	Effluent Limitations				Range of reported values 1/02 to 12/05
		30-Day Average	6-Month Median	Daily Maximum	Instantaneous Maximum	
Isophorone[4]	g/L	0.050	--	--	--	ND
N-nitrosodimethylamine[3]	µg/L	613.2	--	--	--	ND
N-nitrosodimethylamine[4]	µg/L	503.700	--	--	--	ND
N-nitrosodi-N-propylamine[3]	µg/L	31.92	--	--	--	ND
N-nitrosodi-N-propylamine[4]	µg/L	26.220	--	--	--	ND
N-nitrosodiphenylamine[3]	µg/L	210	--	--	--	ND
N-nitrosodiphenylamine[4]	µg/L	172.500	--	--	--	ND
PAHs[3]	µg/L	0.7392	--	--	--	ND
PAHs[4]	µg/L	0.607	--	--	--	ND
PCBs[3]	ng/L	1.596	--	--	--	[5]
PCBs[4]	ng/L	1.311	--	--	--	[5]
TCDD Equivalents[3]	pg/L	0.3276	--	--	--	0.00715 – 0.877
TCDD Equivalents[4]	pg/L	0.269	--	--	--	0.00715 – 0.877
1,1,2,2-Tetrachloroethane[3]	mg/L	0.1932	--	--	--	ND
1,1,2,2-Tetrachloroethane[4]	mg/L	0.159	--	--	--	ND
Tetrachloroethylene[3]	mg/L	0.168	--	--	--	ND
Tetrachloroethylene[4]	mg/L	0.138	--	--	--	ND
Toxaphene[3]	ng/L	17.64	--	--	--	[5]
Toxaphene[4]	ng/L	14.490	--	--	--	[5]
Trichloroethylene[3]	µg/L	2268	--	--	--	ND – 0.17[1]
Trichloroethylene[4]	µg/L	1,863.00	--	--	--	ND – 0.17[1]
1,1,2-Trichloroethane[3]	mg/L	0.7896	--	--	--	ND
1,1,2-Trichloroethane[4]	mg/L	0.649	--	--	--	ND
Vinyl chloride[3]	µg/L	3,024	--	--	--	ND
Vinyl chloride[4]	µg/L	2,484.000	--	--	--	ND

[1] Detectable, but Not Quantified (DNQ)
[2] The Discharge shall not have a pH less than 6.0 nor greater than 9.0.
[3] Effluent limits effective when the effluent flow is equal to or less than 0.285 MGD (based on a dilution factor of 83:1).
[4] Effluent limits effective when the effluent flow is equal to or greater than 0.285 MGD (based ona dilution factor of 68:1)
[5] If any of these constituents do not significantly occur in the effluent, the Executive Officer may allow the constituents to be excluded from the Effluent Monitoring Program. This allowance is conditioned on the Discharger submitting an annual certification (30th day of January) that the constituents being excluded from effluent monitoring are not present in the effluent.

D. **Compliance Summary.** On April 3, 2002, the Discharger reported an effluent flow of 0.281 MGD. Table 4 of Order No. R3-2002-0010 establishes an effluent limitation of 0.3276 pg/L for TCDD equivalents when the effluent flow is equal to or less than 0.285 MGD. The Discharger reported a TCDD equivalents value of 0.877 pg/L for the sampling event on April 3, 2002. This was an exceedance of the effluent limitation contained in Order No. R3-2002-0010 for TCDD equivalents. The Discharger subsequently performed an evaluation of potential sources causing or contributing to the violation, corrected such causes and restored compliance.

E. **Planned Changes.** Not applicable at this time.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. **Legal Authorities.** This Order is issued pursuant to section 402 of the federal 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 (commencing with section 13370). 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 (WDR) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

B. **California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100- through 21177.

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

1. **Water Quality Control Plans.** The Central Coast Water Board adopted *Water Quality Control Plan for the Central Coast* (the Basin Plan) in 1994 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. Section II.A.1 of the Basin Plan states, "The provisions of the State Board's "Water Quality Control Plan for Ocean Waters of California" (Ocean Plan), "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California" (Thermal Plan), and any revisions thereto shall apply in their entirety to affected waters of the basin." The Basin Plan does not establish additional beneficial uses for the Pacific Ocean, separate from those contained in the Ocean Plan. Thus, beneficial uses for the Pacific Ocean are contained in the Ocean Plan and are summarized in Section III.C.3 below. In addition to the provisions included in the Ocean Plan and the Thermal Plan, the Basin Plan establishes water quality objectives for dissolved oxygen, pH, and radioactivity to all ocean waters. Requirements of this Order implement the Basin Plan.

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

3. **California Ocean Plan.** The State Water Board adopted *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, and 2005. The State Water Board adopted the latest amendment on April 21, 2005, and it became effective on February 14, 2006. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized below:

Table F-4. Ocean Plan Beneficial Uses

Discharge Point No.	Receiving Water	Beneficial Uses
001	Pacific Ocean	Industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance (ASBS); rare and endangered species; marine habitat; fish spawning and shellfish harvesting

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

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

5. **Antidegradation Policy.** Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Central Coast Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

6. **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 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.

D. **Impaired Water Bodies on CWA 303(d) List.** The Discharge is into the Pacific Ocean off the coast of Pismo State Beach. The Pacific Ocean off the coast of Pismo State Beach is not listed on the 303(d) list as impaired.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in

the Code of Federal Regulations: section 122.44(a) requires that permits include applicable technology-based limitations and standards, and section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. **Discharge Prohibitions.** Discharge Prohibitions contained in Section III of Order No. R3-2007-0002 are based on the Discharge Prohibitions contained in the previous Order (No. R3-2002-0010).

B. **Technology-Based Effluent Limitations**

1. **Scope and Authority.** Section 301(b) of the CWA and implementing USEPA permit regulations at 40 CFR 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on effluent limitations guidelines and standards (ELGs) for the Petroleum Point Source Category in Part 419, Subpart B (Cracking Subcategory). The CWA requires that technology-based effluent limitations be established based on several levels of controls:

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

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

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

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

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

2. **Applicable Technology-Based Effluent Limitations.** Based on the type of operation, ConocoPhillips, Santa Maria Facility must comply with the ELGs published in Part 419, Subpart B; Petroleum Point Source Category, Cracking Subcategory. Section 419.20 states that the provisions of Subpart B (Cracking Subcategory) are applicable to all discharges from any facility that produces petroleum products by the use of topping and cracking, whether or not the facility includes any process in addition to topping and cracking. The Facility began operations in 1955 and must meet effluent limitations based on BPT, BAT, and BCT criteria. New source performance standards are not applicable to this discharge because major facility processes or wastewater handling modifications have not been conducted since the adoption of the BAT and BCT criteria in August 1985. BPT, BAT, and BCT criteria have been applied in the development of the technology-based effluent limitations.

The refinery primarily uses high nitrogen California crudes in its refinery processes and the constituents in the raw waste load of the Facility are unique. The Facility has shown that it is unable to consistently meet federal ammonia nitrogen limitations established in the applicable ELGs despite having a wastewater treatment system that is BPT and BAT. This inability to meet ammonia nitrogen limitations is due to the high organic nitrogen load in the raw wastewater. As a result, the refinery requested a fundamentally different factors (FDF) variance from the BAT limitations for ammonia. The FDF was submitted to USEPA and the Central Coast Water Board and approved on June 9, 1978, and again in 1989 following the establishment of BAT and BCT criteria in 1985. The BAT and BCT criteria in the ELGs have not changed since their establishment in August 1985. Therefore, as of the 1989 variance request to the USEPA, and the Central Coast Water Board's subsequent reissuance of waste discharge requirements in 1991, 1996, and 2002 that included the FDF, the FDF continues to be appropriate and valid and is carried over to this Order.

The applicable ELGs for the Facility are production-based. In the report of waste discharge submitted on September 29, 2006, the Discharger reported the following quantities as actual measurements of the level of production

Table F-5. Reported Production Level

Quantity Per Day (as 1,000 barrels per day)	Operation
44.4	Atmospheric Distillation
32.0	Vacuum Distillation
23.2	Delayed Coking

The calculations for the technology based-effluent limitations for biochemical oxygen demand (5-day @ 20 °C) (BOD_5), total suspended solids (TSS), chemical oxygen demand (COD), oil and grease, phenolic compounds, ammonia (as N), sulfide, total chromium, and hexivalent chromium are contained in Attachment G. The technology based-effluent limitations for ammonia (as N) are based on the derived Fundamentally Different Factors (FDF) limitations approved by the U.S. EPA and the Central Coast Water Board in 1978 and again in 1989. In addition to the calculated

technology based-effluent limitations contained in Attachment G, BPT and BCT criteria require that the effluent pH remain between 6.0 and 9.0 standard units.

Table F-6. Summary of Technology-based Effluent Limitations

Parameters	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
BOD_5	lbs/day	204	367	--	--
TSS	lbs/day	163	256	--	--
COD	lbs/day	1,430	2,750	--	--
Oil and Grease	lbs/day	59.4	111	--	--
Phenolic Compounds	lbs/day	1.06	2.7	--	--
Ammonia (as N)	lbs/day	220	290	--	--
Sulfide	lbs/day	1.08	2.41	--	--
Total Chromium	lbs/day	1.26	3.60	--	--
Hexavalent Chromium	lbs/day	0.102	0.230	--	--
pH	Standard units	--	--	6.0	9.0

In addition to the technology based-effluent limitations contained in Table F-6, and in accordance with Sections 419.22(e)(2), 419.23(f)(2), and 419.24(e)(2), additional mass loading credits for storm runoff which is commingled with process wastewater and is treated in the main treatment system and discharged to the Pacific Ocean, may be granted. During wet weather runoff, the following incremental effluent credits shall be added to the effluent limitations specified in Table F-7.

Table F-7. Storm Runoff Credits.

Parameters	Units	Effluent Limitations	
		Monthly Average	Daily Maximum
BOD_5	lbs/1,000 gallon[1]	0.22	0.40
TSS	lbs/1,000 gallon[1]	0.18	0.28
COD	lbs/1,000 gallon[1]	1.5	3.0
Oil and Grease	lbs/1,000 gallon[1]	0.067	0.13
Phenolic Compounds	lbs/1,000 gallon[1]	0.0014	0.0029
Total Chromium	lbs/1,000 gallon[1]	0.0018	0.0050
Hexavalent Chromium	lbs/1,000 gallon[1]	0.00023	0.00052

[1] Credits shall be calculated based solely on the measured flow of contaminated storm runoff.

Effluent limitations at section B.8 of Order No. R3-2002-0010 established narrative effluent limitations for floating and settleable materials. These narrative effluent limitations are based on the Ocean Plan water quality objectives. However, quantitative receiving water limitations were also specified in Order No. R3-2002-0010 and have been carried over to this Order. Because the application of the quantitative receiving water limitations will ensure compliance with the narrative limitation, the effluent limitations contained in Section B.8 of Order No. R3-2002-0010 will not be carried over to Order No. R3-2007-0002.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. **Scope and Authority.** Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

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

   The process for determining reasonable potential and calculating 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 any applicable water quality criteria contained in the Ocean Plan.

2. **Applicable Beneficial Uses and Water Quality Criteria and Objectives**

   a. The receiving water for the discharge is the Pacific Ocean. Beneficial uses and water quality objectives for the Pacific Ocean are established in the Ocean Plan and summarized in Section III.C.3 of this Fact Sheet.

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

      1) 6-month median, daily maximum, and instantaneous maximum objectives for 21 chemicals and chemical characteristics, including total residual chlorine and chronic toxicity, for the protection of marine aquatic life.

      2) 30-day average objectives for 20 non-carcinogenic chemicals for the protection of human health.

      3) 30-day average objectives for 42 carcinogenic chemicals for the protection of human health.

      4) Daily maximum objectives for acute and chronic toxicity.

      Table A of the Ocean Plan includes technology-based effluent limitations that are only applicable to publicly owned treatment works and industrial discharges for which ELGs have not been established. ELGs for the petroleum refining industry

have been established and are incorporated into the Order, thus Table A effluent limitations are not applicable to this Discharge.

b. In addition to the water quality objectives specified in the Ocean Plan, the Basin Plan establishes the following water quality objectives for the Pacific Ocean:

1) Dissolved Oxygen. The mean annual dissolved oxygen concentration shall not be less than 7.0 mg/L, nor shall the minimum dissolved oxygen concentration be reduced below 5.0 mg/L at any time.

2) pH. The pH value shall not be depressed below 7.0, nor raised above 8.5.

3) Radioactivity. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life.

c. Section C of the Ocean Plan allows dilution when calculating applicable WQBELs. Dilution is based on the initial dilution of the effluent by the ocean water around the point of discharge. The effluent is discharged through a 1,700 foot diffuser system, 27 feet under water. The minimum initial dilution for the outfall determined in Order No. R3-2002-0010 was determined to be 83:1 during effluent flows at or below 285,000 gallons per day and 68:1 during effluent flows at or below 575,000 gallons per day. Because no significant modifications have occurred in the flow volume, the diffuser operation, or the diffuser itself, these initial dilutions continue to be applicable and have been used in establishing WQBELs in the Order.

3. Determining the Need for WQBELs

Order No. R3-2002-0010 contained effluent limitations for non-conventional and toxic pollutant parameters in Table B of the Ocean Plan. For Order No. R3-2007-0002, the need for effluent limitations based on water quality objectives in Table B of the Ocean Plan was re-evaluated in accordance with section 122.44(d) and guidance for statistically determining the "reasonable potential" for a discharged pollutant to exceed an objective, as outlined in the TSD and the California Ocean Plan Reasonable Potential Analysis (RPA) Amendment that was adopted by the State Water Board on April 21, 2005. The statistical approach combines knowledge of effluent variability (as estimated by a coefficient of variation) with the uncertainty due to a limited number of effluent data to estimate a maximum effluent value at a high level of confidence. This estimated maximum effluent value is based on a lognormal distribution of daily effluent values. Projected receiving water values (based on the estimated maximum effluent value or the reported maximum effluent value and minimum probable initial dilution) can then be compared to the appropriate objective to determine the potential for an exceedance of that objective and the need for an effluent limitation. According to the Ocean Plan amendment, the RPA can yield three endpoints: 1) Endpoint 1, an effluent limitation is required and monitoring is required; 2) Endpoint 2, an effluent limitation is not required and the Central Coast Water Board may require monitoring; and 3) Endpoint 3, the RPA

is inconclusive, monitoring is required, and an existing effluent limitation may be retained or a permit reopener clause is included to allow inclusion of an effluent limitation if future monitoring warrants the inclusion. Endpoint 3 is typically the result when there are fewer than 16 data points and all are censored data (i.e., below quantitation or method detection levels for an analytical procedure). If no data was provided for a parameter, and a RPA could not be conducted for that parameter, the effluent limitation contained in Order No. R3-2002-0010 was carried over to this Order based on the requirements of federal and State anti-backsliding regulations.

The RPcalc 2.0 software tool developed by the State Water Board was used for conducting a RPA. A 95 percent confidence level and 95th percentile was assumed. Effluent data provided in the Discharger's monitoring reports from January 2002 to December 2005 were used as the basis for the RPA. No background data for the constituents were available for use in the RPA; the background concentrations were assumed to equal zero for all pollutants except for those contained in the Ocean Plan Table B implementing procedures for arsenic, copper, mercury, silver, and zinc. A minimum initial dilution of 68:1 for the outfall was assumed based on the most conservative initial dilution.

Based on the reasonable potential analysis, three potential endpoints may be concluded:

Endpoint 1 – RPA is positive, the parameter has reasonable potential. Effluent limitation and monitoring required.

Endpoint 2 – RPA is negative, the parameter does not have reasonable potential. Effluent limitation and monitoring not required.

Endpoint 3 – RPA is inconclusive. Monitoring is required, any existing limitations shall be retained.

For parameters for which no data was provided, an Endpoint 3 was automatically assigned because an RPA could not be performed.

Tables F-10 through F-12 of this Fact Sheet lists the WQBELs for all constituents and their corresponding RPA results. Parameters which did not demonstrate reasonable potential (Endpoint 2) include ammonia, antimony, copper, cyanide, lead, mercury, total chromium, zinc, and chronic toxicity. These parameters are not included in Tables F-10 through F-11 because effluent limitations have not been established for these parameters. The MRP for this Order requires monitoring for constituents with RPA Endpoints 1 for compliance determination and future RPA. The MRP also requires monitoring for constituents with RPA Endpoints 2 or 3 to obtain effluent data that would allow determination of reasonable potential for these constituents in future permit renewals and/or updates.

A 30-day period is a reasonable representation of a calendar month; to conform to section 122.45, the 30-day average criterion in the Ocean Plan has been set equal to a monthly average effluent limitation in this Order.

The previous Order included a whole effluent toxicity (WET) limitation for chronic toxicity; however, did not establish one for acute toxicity. Data to evaluate reasonable potential for acute toxicity is not available, and because the previous Order did not contain an effluent limitation for acute toxicity, and reasonable potential for acute toxicity has not been demonstrated, an effluent limitation for acute toxicity is not established in Order No. R3-2007-0002. Pursuant to Section C.3.c.(4) of the Ocean Plan, the Discharger must continue to conduct chronic toxicity testing. Based on the RPA results for chronic toxicity, the requirement for continued monitoring of chronic toxicity, and the fact that the reasonable potential to exceed water quality objectives for acute toxicity by the discharge has not been demonstrated, an effluent limitation for acute toxicity has not been established.

4. WQBEL Calculations

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

$$Ce = Co + Dm\ (Co - Cs)$$

Where: Ce = the effluent limitation (µg/L)
Co = the water quality objective to be met at the completion of initial dilution (µg/L)
Cs = background seawater concentration
Dm = minimum probable initial dilution expressed as parts seawater per part wastewater

The effluent limitation for acute toxicity is calculated according to the following equation:

$$Ce = Co + (0.1)\ Dm\ (Co - Cs)$$

Where all variables are as indicated above. This equation applies only when Dm > 24.

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

As site-specific water quality data is not available, in accordance with Table B implementing procedures, Cs equals zero for all pollutants, except the following:

Table F-8. Pollutants With Background Concentrations

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

Below is an example of the calculations conducted to derive the WQBELs for arsenic based on an initial dilution of 68:1.

Table F-9. Ocean Plan Water Quality Objectives for Arsenic

Pollutant	6-Month Median	Daily Maximum	Instantaneous Maximum
Arsenic (µg/L)	8	32	80

Using the equation, Ce = Co + Dm (Co – Cs), effluent limitations are calculated as follows.

6-Month Median

Ce = 8 µg/L + 68 (8 µg/L – 3 µg/L)
Ce = 8 µg/L + 340 µg/L
Ce = 348 µg/L

Daily Maximum

Ce = 32 µg/L + 68 (32 µg/L – 3 µg/L)
Ce = 32 µg/L + 1,972 µg/L
Ce = 2,004 µg/L

Instantaneous Maximum

Ce = 80 µg/L + 68 (80 µg/L – 3 µg/L)
Ce = 80 µg/L + 5,236 µg/L
Ce = 5,316 µg/L

Because the same initial dilutions that were used in the previous order are still applicable, and the water quality objectives for all the parameters have not changed, the WQBELs that are included in Order R3-2007-0002 are the same as those contained in Order No. R3-2002-0010.

Mass limitations have been established for the WQBELs in accordance with Section III.C.3.j of the Ocean Plan, which states, "Discharge requirements shall also specify effluent limitations in terms of mass emission rate limits utilizing the general formula:

lbs/day = 0.00834 X Ce X Q

where:

Ce = the effluent concentration limit, µg/L
Q = flow rate, million gallons per day (MGD)

Table F-10. Summary of WQBELs for the Protection of Marine Life When Effluent Flow is Equal to or Less Than 0.285 MGD

Parameters	Units	Effluent Limitations[1]			RPA Endpoint
		Maximum Daily	Instantaneous Maximum	Six-Month Median	
Arsenic	mg/L	2.44	6.47	0.42	Endpoint 3
	lbs/day[2]	5.80	15.38	1.00	
Cadmium	mg/L	0.34	0.84	0.08	Endpoint 3
	lbs/day	0.81	2.00	0.19	
Nickel	mg/L	1.68	4.20	0.42	Endpoint 3
	lbs/day	4.00	9.98	1.00	
Selenium	mg/L	5.04	12.60	1.26	Endpoint 1
	lbs/day	11.98	29.95	2.99	
Silver	mg/L	0.22	0.57	0.06	Endpoint 3
	lbs/day	0.52	1.35	0.14	
Total Chlorine Residual	mg/L	0.67	5.04	0.17	Endpoint 3
	lbs/day	1.59	11.98	0.40	
Phenolic Compounds (non-chlorinated)	mg/L	10.08	25.20	2.52	Endpoint 3
	lbs/day	23.96	59.90	5.99	
Chlorinated Phenolics	mg/L	0.34	0.84	0.08	Endpoint 3
	lbs/day	0.81	2.00	0.19	
Endosulfan[2]	µg/L	1.51	2.27	0.76	Endpoint 3
	lbs/day	3.59	5.40	1.81	
Endrin	µg/L	0.34	0.50	0.17	Endpoint 3
	lbs/day	0.81	1.19	0.40	
HCH[3]	µg/L	0.67	1.01	0.34	Endpoint 3
	lbs/day	1.59	2.40	0.81	
Radioactivity	[4]				Endpoint 3

[1] Based on a dilution factor of 83:1.
[2] The sum of endosulfan-alpha and endosulfan-beta and endosulfan sulfate.
[3] The sum of alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.
[4] Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.

Table F-11. Summary of WQBELs for the Protection of Marine Life When Effluent Flow is Equal to or Less Than 0.575 MGD

Parameters	Units	Effluent Limitations[1]			RPA Endpoint
		Maximum Daily	Instantaneous Maximum	Six-Month Median	
Arsenic	mg/L	2.00	5.32	0.35	Endpoint 3
	lbs/day	9.59	25.51	1.68	
Cadmium	mg/L	0.28	0.69	0.07	Endpoint 3
	lbs/day	1.34	3.31	0.34	
Nickel	mg/L	1.38	3.45	0.35	Endpoint 3
	lbs/day	6.62	16.54	1.68	
Selenium	mg/L	4.14	10.35	1.04	Endpoint 1
	lbs/day	19.85	49.63	4.99	
Silver	mg/L	0.18	0.47	0.05	Endpoint 3
	lbs/day	0.86	2.25	0.24	
Total Chlorine Residual	mg/L	0.55	4.14	0.14	Endpoint 3
	lbs/day	2.64	19.85	0.67	
Phenolic Compounds (non-chlorinated)	mg/L	8.28	20.70	2.07	Endpoint 3
	lbs/day	39.71	99.27	9.93	
Chlorinated Phenolics	mg/L	0.28	0.69	0.07	Endpoint 3
	lbs/day	1.34	3.31	0.34	
Endosulfan[2]	µg/L	1.24	1.86	0.62	Endpoint 3
	lbs/day	5.95	8.92	2.97	
Endrin	µg/L	0.28	0.41	0.14	Endpoint 3
	lbs/day	1.34	1.97	0.67	
HCH[3]	µg/L	0.55	0.83	0.28	Endpoint 3
	lbs/day	2.64	3.98	1.34	
Radioactivity	[4]				Endpoint 3

[1] Based on a dilution factor of 68:1
[2] The sum of endosulfan-alpha and –beta and endosulfan sulfate.
[3] The sum of alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.
[4] Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.

Table F-12. Summary of WQBELs of Human Health

Parameters	Units	Monthly Average Effluent Limitations		RPA Endpoint
		= or < 0.285 MGD	>0.285 MGD	
Antimony	mg/L	100.8	82.800	Endpoint 2
	lbs/day	239.6	397.1	
Bis(2-chloroethoxy) Methane	mg/L	0.3696	0.304	Endpoint 3
	lbs/day	88.6	1.5	
Bis(2-chloroisopropyl) Ether	mg/L	100.8	82.800	Endpoint 3
	lbs/day	8,926.5	397.1	

Parameters	Units	Monthly Average Effluent Limitations		RPA Endpoint
		= or < 0.285 MGD	>0.285 MGD	
Chlorobenzene	mg/L	47.88	39.330	Endpoint 3
	lbs/day	113.8	188.6	
Chromium (III)	g/L	15.96	13.110	Endpoint 3
	lbs/day	37,935	62,869.0	
Di-n-butyl Phthalate	mg/L	294	241.500	Endpoint 3
	lbs/day	698.8	1,158.1	
Dichlorobenzenes[1]	mg/L	428.4	351.900	Endpoint 3
	lbs/day	1,018.3	1,687.5	
Diethyl Phthalate	mg/L	2,772	2,277.00	Endpoint 3
	lbs/day	6,588.8	10,919.3	
Dimethyl Phthalate	g/L	68.88	56.580	Endpoint 3
	lbs/day	163,720.9	271,329.4	
4,6-Dinitro-2-methylphenol	mg/L	18.48	15.180	Endpoint 3
	lbs/day	43.92	72.8	
2,4-Dinitrophenol	mg/L	0.336	0.276	Endpoint 3
	lbs/day	8.0	13.2	
Ethylbenzene	mg/L	344.4	282.900	Endpoint 3
	lbs/day	818.6	1,356.6	
Fluoranthene	mg/L	1.26	1.035	Endpoint 3
	lbs/day	3.0	5.0	
Hexachlorocyclopentadiene	mg/L	4.872	4.002	Endpoint 3
	lbs/day	11.6	19.2	
Nitrobenzene	mg/L	0.4116	0.338	Endpoint 3
	lbs/day	1.0	1.6	
Thallium	mg/L	0.168	0.138	Endpoint 3
	lbs/day	0.4	0.7	
Toluene	g/L	7.14	5.865	Endpoint 3
	lbs/day	16,971.1	28,125.6	
Tributyltin	µg/L	0.1176	0.097	Endpoint 3
	lbs/day	0.0003	0.0004	
1,1,1-Trichloroethane	g/L	45.36	37.260	Endpoint 3
	lbs/day	107,816.2	178,680.3	
Acrylonitrile	µg/L	8.4	6.900	Endpoint 3
	lbs/day	0.02	0.03	
Aldrin	ng/L	1.848	1.518	Endpoint 3
	lbs/day	4.4×10^{-6}	7.3×10^{-6}	
Benzene	µg/L	495.6	407.100	Endpoint 3
	lbs/day	1.2	1.9	
Benzidine	µg/L	0.005796	0.005	Endpoint 3
	lbs/day	1.4×10^{-5}	2.3×10^{-6}	
Beryllium	µg/L	2.772	2.277	Endpoint 3
	lbs/day	0.007	0.01	
Bis(2-chloroethyl) Ether	µg/L	3.78	3.105	Endpoint 3
	lbs/day	0.009	0.01	
Bis(2-ethlyhexyl) Phthalate	µg/L	294	241.500	Endpoint 3
	lbs/day	0.7	1.2	
Carbon Tetrachloride	µg/L	75.6	62.100	Endpoint 3
	lbs/day	0.2	0.3	
Chlordane[2]	ng/L	1.932	1.587	Endpoint 3
	lbs/day	4.5×10^{-6}	7.6×10^{-6}	
Chlorodibromethane	µg/L	722.4	593.400	Endpoint 3
	lbs/day	1.7	2.8	
Chloroform	µg/L	10,920	8,970.000	Endpoint 3

Parameters	Units	Monthly Average Effluent Limitations		RPA Endpoint
		= or < 0.285 MGD	>0.285 MGD	
	lbs/day	26.0	43.0	
DDT[3]	ng/L	14.28	11.730	Endpoint 3
	lbs/day	3.4×10^{-5}	5.6×10^{-5}	
1,4-Dichlorobenzene	µg/L	1,512	1,242.000	Endpoint 3
	lbs/day	3.6	5.9	
3,3'-Dichlorobenzidine	µg/L	0.6804	0.559	Endpoint 3
	lbs/day	0.002	0.003	
1,2-Dichloroethane	mg/L	2.352	1.932	Endpoint 3
	lbs/day	5.6	9.3	
1,1-Dichloroethylene	mg/L	0.0756	0.062	Endpoint 3
	lbs/day	0.2	0.3	
Dichlorobromomethane	mg/L	0.5208	0.428	Endpoint 3
	lbs/day	1.2	2.0	
Dichloromethane	mg/L	37.8	31.050	Endpoint 3
	lbs/day	89.8	148.9	
1,3-Dichloropropene	mg/L	0.7476	0.614	Endpoint 3
	lbs/day	1.8	2.9	
Dieldrin	ng/L	3.36	2.760	Endpoint 3
	lbs/day	7.9×10^{-6}	1.3×10^{-5}	
2,4-Dinitrotoluene	µg/L	218.4	179.400	Endpoint 3
	lbs/day	0.5	0.9	
1,2-Diphenylhydrazine	µg/L	13.44	11.040	Endpoint 3
	lbs/day	0.03	0.05	
Halomethanes[4]	mg/L	10.92	8.970	Endpoint 3
	lbs/day	26.0	43.0	
Heptachlor	µg/L	0.0042	0.003	Endpoint 3
	lbs/day	10.0×10^{-6}	1.6×10^{-5}	
Heptachlor Epoxide	µg/L	0.00168	0.001	Endpoint 3
	lbs/day	4.0×10^{-6}	6.6×10^{-6}	
Hexachlorobenzene	ng/L	17.64	14.490	Endpoint 3
	lbs/day	4.2×10^{-5}	6.9×10^{-5}	
Hexachlorobutadiene	µg/L	1,176	966.000	Endpoint 3
	lbs/day	2.8	4.6	
Hexachloroethane	µg/L	210	172.500	Endpoint 3
	lbs/day	0.5	0.8	
Isophorone	g/L	0.06132	0.050	Endpoint 3
	lbs/day	145.7	241.5	
N-nitrosodimethylamine	µg/L	613.2	503.700	Endpoint 3
	lbs/day	1.5	2.4	
N-nitrosodi-N-propylamine	µg/L	31.92	26.220	Endpoint 3
	lbs/day	0.08	0.1	
N-nitrosodiphenylamine	µg/L	210	172.500	Endpoint 3
	lbs/day	0.5	0.8	
PAHs[5]	µg/L	0.7392	0.607	Endpoint 3
	lbs/day	0.002	0.003	
PCBs[6]	ng/L	1.596	1.311	Endpoint 3
	lbs/day	3.8×10^{-6}	6.3×10^{-6}	
TCDD Equivalents[7]	pg/L	0.3276	0.269	Endpoint 1
	lbs/day	7.8×10^{-10}	1.3×10^{-9}	
1,1,2,2-Tetrachloroethane	mg/L	0.1932	0.159	Endpoint 3
	lbs/day	0.5	0.8	
Tetrachloroethylene	mg/L	0.168	0.138	Endpoint 3
	lbs/day	0.4	0.7	

Parameters	Units	Monthly Average Effluent Limitations		RPA Endpoint
		= or < 0.285 MGD	>0.285 MGD	
Toxaphene	ng/L	17.64	14.490	Endpoint 3
	lbs/day	4.2×10^{-5}	6.9×10^{-5}	
Trichloroethylene	µg/L	2,268	1,863.000	Endpoint 3
	lbs/day	5.4	8.9	
1,1,2-Trichloroethane	mg/L	0.7896	0.649	Endpoint 3
	lbs/day	1.9	3.1	
2,4,6-Trichlorophenol	µg/L	24.4	20.01	Endpoint 3
	lbs/day	0.06	0.1	
Vinyl Chloride	µg/L	3,024	2,484.000	Endpoint 3
	lbs/day	7.2	11.9	

[1] The sum of 1,2- and 1,3-dichlorobenzene.
[2] The sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.
[3] The sum of 4,4'-DDT; 2,4'-DDT; 4,4'-DDE; 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.
[4] The sum of bromoform, bromomethane, and chloromethane.
[5] Polynuclear Aromatic Hydrocarbons - The sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo[a]pyrene; chrysene; dibenzo[a,h]anthracene; fluorene; indeno[1,2,3-cd]pyrene; phenanthrene; and pyrene.
[6] Polychlorinated Biphenyls – The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
[7] The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as summarized in Appendix I of the Ocean Plan.

5. Whole Effluent Toxicity (WET)

As discussed in Section IV.C.3 of this Fact Sheet, a RPA was conducted on the discharge for chronic toxicity and reasonable potential to exceed water quality objectives was not established. Based on this new information, in compliance with anti-backsliding regulations established in 40 CFR §122.44(l)(2)(i)(B)(1), the effluent limitation for chronic toxicity has been removed. However, implementing provisions at Section III.C of the Ocean Plan require that Dischargers shall conduct chronic toxicity testing for ocean waste discharges with minimum initial dilution below 100:1, thus chronic toxicity testing is carried over from the previous Order.

A toxicity reduction evaluation (TRE) is a site-specific study conducted in a stepwise process designed to identify the causative agent(s) of effluent toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity. Order No. R3-2002-0010 established a daily maximum effluent limitation for the discharge when flows are equal to or less than 0.285 MGD, and when flows are above 0.285 MGD, of 84 TU_c and 69 TU_c, respectively, for chronic toxicity. Although these effluent limitations are not continued over to this Order, these values were calculated based on the water quality objective for chronic toxicity contain in the Ocean Plan and represent a toxicity level that might negatively affect the beneficial uses of the receiving water. Thus, the previous chronic toxicity effluent limitations are carried over to this Order as water quality triggers to conduct a TRE. Pursuant to Section III.C.9 of the Ocean Plan, the Discharger shall perform a TRE if the Executive Officer determines that toxicity testing shows consistent exceedance of the chronic toxicity TRE triggers. The Discharger must take all reasonable steps to reduce toxicity once the source of toxicity has been identified.

D. Final Effluent Limitations

1. **Satisfaction of Anti-Backsliding Requirements**. The effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, with the exception of effluent limitations for ammonia, antimony, copper, cyanide, lead, mercury, total chromium, zinc, and chronic toxicity. The WQBELs for these pollutants have not been carried over from the previous Order. This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations found in section 122.44(l)(2)(i)(B)(1). Effluent data and RPA procedures for the Ocean Plan, developed over the term of the previous Order represent new information not available during the renewal of the previous Order. Because ammonia, antimony, copper, cyanide, lead, mercury, total chromium, zinc, and chronic toxicity did not demonstrate reasonable potential to exceed water quality objectives contained in the Ocean Plan, WQBELs have not been established for these parameters. Monitoring requirements for these parameters continue to be effective to determine reasonable potential during future permitted efforts. Technology based-effluent limitations for ammonia (as N), total chromium, and hexavalent chromium continue to be applicable.

2. **Satisfaction of Antidegradation Policy.** The permitted discharge is consistent with the antidegradation provision of Section 131.12 and State Water Board Resolution No. 68-16.

3. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD_5, TSS, COD, oil and grease, phenolic compounds, ammonia (as N), sulfide, total chromium, hexavalent chromium, and pH. Restrictions on BOD_5, TSS, COD, oil and grease, phenolic compounds, ammonia (as N), sulfide, total chromium, hexavalent chromium, and pH are discussed in Section IV.B of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum applicable federal technology-based requirements. These limitations are not more stringent than required by the CWA.

   WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The scientific procedures for calculating the individual WQBELs are based on the Ocean Plan, which was approved by USEPA on February 14, 2006. Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

4. **Final Effluent Limitations.** The final effluent limitations for the discharge of treated process wastewaters and commingled storm runoff through Discharge Point No. 001 to the Pacific Ocean are summarized below:

   a. Effluent limitations applicable to Discharge Point No. 001 at all times are summarized in below.

Table F-13. Summary of Technology-based Effluent Limitations

Parameters	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
BOD_5	lbs/day	204	367	--	--
TSS	lbs/day	163	256	--	--
COD	lbs/day	1,430	2,750	--	--
Oil and grease	lbs/day	59.4	111	--	--
Phenolic compounds	lbs/day	1.06	2.7	--	--
Ammonia (as N)	lbs/day	220	290	--	--
Sulfide	lbs/day	1.08	2.41	--	--
Total Chromium	lbs/day	1.26	3.6	--	--
Hexavalent Chromium	lbs/day	0.102	0.230	--	--
pH	Standard units	--	--	6.0	9.0

In addition to the technology based-effluent limitations contained in Table F-13, and in accordance with Sections 419.22(e)(2), 419.23(f)(2), and 419.24(e)(2), additional mass loading credits for storm runoff which is commingled with process wastewater and is treated in the main treatment system and discharged to the Pacific Ocean, may be granted. During wet weather runoff, the following incremental effluent credits shall be added to the effluent limitations specified in Table F-14.

Table F-14. Storm Runoff Credits.

Parameters	Units	Effluent Limitations	
		Monthly Average	Daily Maximum
BOD_5	lbs/1,000 gallon[1]	0.22	0.40
TSS	lbs/1,000 gallon[1]	0.18	0.28
COD	lbs/1,000 gallon[1]	1.5	3.0
Oil and Grease	lbs/1,000 gallon[1]	0.067	0.13
Phenolic Compounds	lbs/1,000 gallon[1]	0.0014	0.0029
Total Chromium	lbs/1,000 gallon[1]	0.0018	0.0050
Hexavalent Chromium	lbs/1,000 gallon[1]	0.00023	0.00052

[1] Credits shall be calculated based solely on the measured flow of contaminated storm runoff.

b. Effluent limitations applicable to Discharge Point No. 001 when effluent flow is equal to or less than 0.285 MGD are summarized below.

Table F-15. Summary of Effluent Limitations When Effluent Flow is Equal to or Less Than 0.285 MGD

Parameters	Units	Effluent Limitations[1]		
		Maximum Daily	Instantaneous Maximum	Six-Month Median
Arsenic	mg/L	2.44	6.47	0.42
	lbs/day[2]	5.80	15.38	1.00
Cadmium	mg/L	0.34	0.84	0.08
	lbs/day	0.81	2.00	0.19
Nickel	mg/L	1.68	4.20	0.42
	lbs/day	4.00	9.98	1.00
Selenium	mg/L	5.04	12.60	1.26
	lbs/day	11.98	29.95	2.99
Silver	mg/L	0.22	0.57	0.06
	lbs/day	0.52	1.35	0.14
Total Chlorine Residual	mg/L	0.67	5.04	0.17
	lbs/day	1.59	11.98	0.40
Phenolic Compounds (non-chlorinated)	mg/L	10.08	25.20	2.52
	lbs/day	23.96	59.90	5.99
Chlorinated Phenolics	mg/L	0.34	0.84	0.08
	lbs/day	0.81	2.00	0.19
Endosulfan[2]	µg/L	1.51	2.27	0.76
	lbs/day	3.59	5.40	1.81
Endrin	µg/L	0.34	0.50	0.17
	lbs/day	0.81	1.19	0.40
HCH[3]	µg/L	0.67	1.01	0.34
	lbs/day	1.59	2.40	0.81
Radioactivity	[4]			

1 Based on a dilution factor of 83:1.
2 The sum of endosulfan-alpha and endosulfan-beta and endosulfan sulfate.
3 The sum of alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.
4 Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.

c. Effluent limitations applicable to Discharge Point No. 001 when effluent flow is greater than 0.285 MGD are summarized below.

Table F-16. Summary of Effluent Limitations When Effluent Flow is Greater Than 0.285 MGD

Parameters	Units	Effluent Limitations[1]		
		Maximum Daily	Instantaneous Maximum	Six-Month Median
Arsenic	mg/L	2.00	5.32	0.35
	lbs/day	9.59	25.51	1.68
Cadmium	mg/L	0.28	0.69	0.07
	lbs/day	1.34	3.31	0.34
Nickel	mg/L	1.38	3.45	0.35
	lbs/day	6.62	16.54	1.68
Selenium	mg/L	4.14	10.35	1.04
	lbs/day	19.85	49.63	4.99
Silver	mg/L	0.18	0.47	0.05
	lbs/day	0.86	2.25	0.24
Total Chlorine Residual	mg/L	0.55	4.14	0.14
	lbs/day	2.64	19.85	0.67
Phenolic Compounds (non-chlorinated)	mg/L	8.28	20.70	2.07
	lbs/day	39.71	99.27	9.93
Chlorinated Phenolics	mg/L	0.28	0.69	0.07
	lbs/day	1.34	3.31	0.34
Endosulfan[2]	µg/L	1.24	1.86	0.62
	lbs/day	5.95	8.92	2.97
Endrin	µg/L	0.28	0.41	0.14
	lbs/day	1.34	1.97	0.67
HCH[3]	µg/L	0.55	0.83	0.28
	lbs/day	2.64	3.98	1.34
Radioactivity	[4]			

[1] Based on a dilution factor of 68:1
[2] The sum of endosulfan-alpha and –beta and endosulfan sulfate.
[3] The sum of alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.
[4] Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Code of Regulations.

d. Monthly average effluent limitations applicable to Discharge Point No. 001 are summarized below.

Table F-17. Summary of Monthly Average Effluent Limitations

Parameters	Units	Monthly Average Effluent Limitations	
		= or < 0.285 MGD	>0.285 MGD
Antimony	mg/L	100.8	82.800
	lbs/day	239.6	397.1
Bis(2-chloroethoxy) Methane	mg/L	0.3696	0.304
	lbs/day	88.6	1.5

Parameters	Units	Monthly Average Effluent Limitations	
		= or < 0.285 MGD	>0.285 MGD
Bis(2-chloroisopropyl) Ether	mg/L	100.8	82.800
	lbs/day	8,926.5	397.1
Chlorobenzene	mg/L	47.88	39.330
	lbs/day	113.8	188.6
Chromium (III)	g/L	15.96	13.110
	lbs/day	37,935	62,869.0
Di-n-butyl Phthalate	mg/L	294	241.500
	lbs/day	698.8	1,158.1
Dichlorobenzenes[1]	mg/L	428.4	351.900
	lbs/day	1,018.3	1,687.5
Diethyl Phthalate	mg/L	2,772	2,277.00
	lbs/day	6,588.8	10,919.3
Dimethyl Phthalate	g/L	68.88	56.580
	lbs/day	163,720.9	271,329.4
4,6-Dinitro-2-methylphenol	mg/L	18.48	15.180
	lbs/day	43.92	72.8
2,4-Dinitrophenol	mg/L	0.336	0.276
	lbs/day	8.0	13.2
Ethylbenzene	mg/L	344.4	282.900
	lbs/day	818.6	1,356.6
Fluoranthene	mg/L	1.26	1.035
	lbs/day	3.0	5.0
Hexachlorocyclopentadiene	mg/L	4.872	4.002
	lbs/day	11.6	19.2
Nitrobenzene	mg/L	0.4116	0.338
	lbs/day	1.0	1.6
Thallium	mg/L	0.168	0.138
	lbs/day	0.4	0.7
Toluene	g/L	7.14	5.865
	lbs/day	16,971.1	28,125.6
Tributyltin	µg/L	0.1176	0.097
	lbs/day	0.0003	0.0004
1,1,1-Trichloroethane	g/L	45.36	37.260
	lbs/day	107,816.2	178,680.3
Acrylonitrile	µg/L	8.4	6.900
	lbs/day	0.02	0.03
Aldrin	ng/L	1.848	1.518
	lbs/day	4.4×10^{-6}	7.3×10^{-6}
Benzene	µg/L	495.6	407.100
	lbs/day	1.2	1.9
Benzidine	µg/L	0.005796	0.005
	lbs/day	1.4×10^{-5}	2.3×10^{-6}
Beryllium	µg/L	2.772	2.277
	lbs/day	0.007	0.01
Bis(2-chloroethyl) Ether	µg/L	3.78	3.105
	lbs/day	0.009	0.01
Bis(2-ethlyhexyl) Phthalate	µg/L	294	241.500
	lbs/day	0.7	1.2
Carbon Tetrachloride	µg/L	75.6	62.100
	lbs/day	0.2	0.3
Chlordane[2]	ng/L	1.932	1.587
	lbs/day	4.5×10^{-6}	7.6×10^{-6}
Chlorodibromethane	µg/L	722.4	593.400

Parameters	Units	Monthly Average Effluent Limitations	
		= or < 0.285 MGD	>0.285 MGD
	lbs/day	1.7	2.8
Chloroform	µg/L	10,920	8,970.000
	lbs/day	26.0	43.0
DDT[3]	ng/L	14.28	11.730
	lbs/day	3.4×10^{-5}	5.6×10^{-5}
1,4-Dichlorobenzene	µg/L	1,512	1,242.000
	lbs/day	3.6	5.9
3,3'-Dichlorobenzidine	µg/L	0.6804	0.559
	lbs/day	0.002	0.003
1,2-dichloroethane	mg/L	2.352	1.932
	lbs/day	5.6	9.3
1,1-Dichloroethylene	mg/L	0.0756	0.062
	lbs/day	0.2	0.3
Dichlorobromomethane	mg/L	0.5208	0.428
	lbs/day	1.2	2.0
Dichloromethane	mg/L	37.8	31.050
	lbs/day	89.8	148.9
1,3-Dichloropropene	mg/L	0.7476	0.614
	lbs/day	1.8	2.9
Dieldrin	ng/L	3.36	2.760
	lbs/day	7.9×10^{-6}	1.3×10^{-5}
2,4-Dinitrotoluene	µg/L	218.4	179.400
	lbs/day	0.5	0.9
1,2-Diphenylhydrazine	µg/L	13.44	11.040
	lbs/day	0.03	0.05
Halomethanes[4]	mg/L	10.92	8.970
	lbs/day	26.0	43.0
Heptachlor	µg/L	0.0042	0.003
	lbs/day	10.0×10^{-6}	1.6×10^{-5}
Heptachlor Epoxide	µg/L	0.00168	0.001
	lbs/day	4.0×10^{-6}	6.6×10^{-6}
Hexachlorobenzene	ng/L	17.64	14.490
	lbs/day	4.2×10^{-5}	6.9×10^{-5}
Hexachlorobutadiene	µg/L	1,176	966.000
	lbs/day	2.8	4.6
Hexachloroethane	µg/L	210	172.500
	lbs/day	0.5	0.8
Isophorone	g/L	0.06132	0.050
	lbs/day	145.7	241.5
N-nitrosodimethylamine	µg/L	613.2	503.700
	lbs/day	1.5	2.4
N-nitrosodi-N-propylamine	µg/L	31.92	26.220
	lbs/day	0.08	0.1
N-nitrosodiphenylamine	µg/L	210	172.500
	lbs/day	0.5	0.8
PAHs[5]	µg/L	0.7392	0.607
	lbs/day	0.002	0.003
PCBs[6]	ng/L	1.596	1.311
	lbs/day	3.8×10^{-6}	6.3×10^{-6}
TCDD Equivalents[7]	pg/L	0.3276	0.269
	lbs/day	7.8×10^{-10}	1.3×10^{-9}
1,1,2,2-Tetrachloroethane	mg/L	0.1932	0.159
	lbs/day	0.5	0.8

Parameters	Units	Monthly Average Effluent Limitations	
		= or < 0.285 MGD	>0.285 MGD
Tetrachloroethylene	mg/L	0.168	0.138
	lbs/day	0.4	0.7
Toxaphene	ng/L	17.64	14.490
	lbs/day	4.2×10^{-5}	6.9×10^{-5}
Trichloroethylene	µg/L	2,268	1,863.000
	lbs/day	5.4	8.9
1,1,2-Trichloroethane	mg/L	0.7896	0.649
	lbs/day	1.9	3.1
2,4,6-Trichlorophenol	µg/L	24.4	20.01
	lbs/day	0.06	0.1
Vinyl Chloride	µg/L	3,024	2,484.000
	lbs/day	7.2	11.9

[1] The sum of 1,2- and 1,3-dichlorobenzene.
[2] The sum of chlordane-alpha, chlordane-gamma, chlordane-alpha, chordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.
[3] The sum of 4,4'-DDT; 2,4'-DDT; 4,4'-DDE; 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.
[4] The sum of bromoform, bromomethane, and chloromethane.
[5] Polynuclear Aromatic Hydrocarbons - The sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo[a]pyrene; chrysene; dibenzo[a,h]anthracene; fluorene; indeno[1,2,3-cd]pyrene; phenanthrene; and pyrene.
[6] Polychlorinated Biphenyls – The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
[7] The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as summarized in Appendix I of the Ocean Plan.

E. Interim Effluent Limitations

[NOT APPLICABLE]

F. Land Discharge Specifications. The Discharge of non-contact stormwater to the evaporation/percolation basins shall not cause constituent concentrations in ground water to exceed limits set forth in Title 22, Chapter 15, Articles 4, 4.5, 5, and 5.5 of the California Code of Regulations or cause a statistically significant increase in constituent concentrations in underlying ground waters, as determined by samples collected from wells up gradient and down gradient of the percolation ponds.

G. Reclamation Specifications

[NOT APPLICABLE]

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water. Receiving water limitations are based on the water quality objectives contained in Section II of the Ocean Plan. In addition to the water quality objectives contained in the Ocean Plan, Section II.A.1 of the Basin Plan establishes water quality objectives for dissolved oxygen and pH. Receiving water limitations for dissolved oxygen are based on the previous Order, the Ocean Plan, and the Basin Plan.

B. Groundwater

[NOT APPLICABLE]

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Central Coast Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring

1. Influent flow monitoring of contact storm runoff has been carried over from Monitoring and Reporting Program No. R3-2002-0010. Influent monitoring of contact storm runoff is required for the calculation of the additional mass loading credits for stormwater provided in section IV.A.1.a of the Order.

2. Influent flow monitoring of non-contact storm runoff to the evaporation/percolation basins has been carried over from Monitoring and Reporting Program No. R3-2002-0010.

B. Effluent Monitoring. Effluent monitoring is required to determine compliance with effluent limitations contained in this Order and to determine contributions, if any, by the Discharger to receiving water exceedances above water quality objectives. In addition, semi-annual effluent monitoring for Ocean Plan Table B pollutants have been established to evaluate reasonable potential of the Discharger's effluent to exceed water quality objectives/criteria during the next permit renewal process. Effluent Monitoring requirements have been carried over from Monitoring and Reporting Program No. R3-2002-0010.

C. Whole Effluent Toxicity Testing Requirements. Implementing provisions at Section III.C.3.c of the Ocean Plan require chronic toxicity monitoring for ocean waste discharges with minimum initial dilution factors below 100. Dilution factors of 68 and 83 have been established for this discharge, thus chronic toxicity monitoring has been carried over from Monitoring and Reporting Program No. R3-2002-0010 for this discharge.

D. Receiving Water Monitoring. Receiving water monitoring once in the life of the permit is included so that data will be available to evaluate dilution ratio (effluent with seawater) during permit renewal.

E. Other Monitoring Requirements

1. Raw Material Feed Monitoring. Monitoring of raw hydrocarbon material feed is required to assess the production level at the Facility during the next permit renewal for the calculations of technology-based effluent limitations. The monitoring requirements for raw material feed have been carried over from Monitoring and Reporting Program No. R3-2002-0010.

2. Bottom Sediment Monitoring. Monitoring of bottom sediment is required to asses the effects of the discharge on the Ocean sediment within the zone of initial dilution and compliance with water quality objectives contained in the Ocean Plan. The monitoring requirements for bottom sediment have been carried over from Monitoring and Reporting Program No. R3-2002-0010.

3. Receiving Water Characteristics Monitoring. Monitoring of the receiving water characteristics at incremental depths around the discharge location is necessary for calculating initial dilution during the next permit renewal. Monitoring during the fourth year of term of the Order has been established for temperature, salinity, and depth.

4. Benthic Biota Sampling. Monitoring of benthic biota is required to asses the effects of the discharge on the Ocean local biota within the zone of initial dilution and compliance with water quality objectives contained in the Ocean Plan. The monitoring requirements for benthic biota have been carried over from Monitoring and Reporting Program No. R3-2002-0010.

5. Outfall Inspection. Monitoring of the structural integrity of the outfall has been carried over from Monitoring and Reporting Program No. R3-2002-0010.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

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

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

B. Special Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

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

1. Reopener Provisions

a. The Executive Officer may reopen this Order if the Central Coast Water Board adopts a TMDL before the Order expires and the Central Coast Water Board finds it necessary to revise the Order's waste discharge requirements.

b. The Executive Officer may reopen this Order based on a change in the designation of beneficial uses of the receiving water or the development and adoption of site-specific objectives for the receiving water.

c. This Order requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity through a Toxicity Reduction Evaluation (TRE). This Order may be reopened to include a numeric chronic toxicity limitation, a new acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE.

d. Conditions that necessitate a major modification of a permit are described in 40 CFR section 122.62, including:

   1) If new or amended applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA, or amendments thereto, this permit may be reopened and modified in accordance with the new or amended standards.

   2) When new information, that was not available at the time of permit issuance, would have justified different permit conditions at the time of issuance.

2. Special Studies and Additional Monitoring Requirements

Table B of the Ocean Plan establishes a numerical chronic toxicity objective for the protection of marine aquatic life. Attachment E of this Order requires semi-annual

chronic WET monitoring. A TRE trigger of 84 TU_c and 69 TU_c has been established for when effluent flows are equal to or less than 0.285 MGD or greater than 0.285 MGD, respectively. If the TRE trigger is exceeded, the Executive Officer may require the Discharger to conduct a TRE to identify sources of toxicity and take all reasonable steps to reduce toxicity once the source of toxicity is identified.

3. **Best Management Practices and Pollution Prevention**

   Provision D.5 of Order No. R3-2002-0010 required the Discharger to implement and update a BMP plan which prevents, or minimizes the potential for, release of toxic substances from ancillary activities to the waters of the United States through plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. This Order requires the Discharger to continue to implement and update a BMP plan on an ongoing basis to ensure that no contaminated stormwater leaves the facility's property and enters surrounding surface waters.

4. **Construction, Operation, and Maintenance Specifications.** Not applicable.

5. **Special Provisions for Municipal Facilities (POTWs Only).** Not applicable.

6. **Other Special Provisions.** Not applicable.

7. **Compliance Schedules**

VIII. PUBLIC PARTICIPATION

The California Central Coast Water Quality Control Board, Central Coast Region (Central Coast Water Board) is considering the issuance of waste discharge requirements (WDR) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for ConocoPhillips Company, Santa Maria Facility. As a step in the WDR adoption process, the Central Coast Water Board staff has developed tentative WDR. The Central Coast Water Board encourages public participation in the WDR adoption process.

A. **Notification of Interested Parties.** The Central Coast 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. Notification was provided through publication in the Tribune on ____

B. **Written Comments.** The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDR. Comments must be submitted either in person or by mail to the Executive Office at the Central Coast Water Board at the address above on the cover page of this Order.

   To be fully responded to by staff and considered by the Central Coast Water Board, written comments must be received at the Central Coast Water Board offices by 5:00 p.m. on July 13, 2007.

C. Public Hearing

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

Date: **September 7, 2007**
Time: **8:30 a.m.**
Location: **Central Coast Water Board Hearing Room**
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

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

Please be aware that dates and venues may change. Our Web address is **http://www.waterboards.ca.gov/centralcoast** 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 Central Coast Water Board regarding the final WDR. The petition must be submitted within 30 days of the Central Coast Water Board's action to the following address:

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

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address 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 Central Coast Water Board by calling (805) 549-3147.

F. Register of Interested Persons. Any person interested in being placed on the mailing list for information regarding the WDR and NPDES permit should contact the Central Coast 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 Sorrel Marks at (805) 549-3695.

ATTACHMENT G – TECHNOLOGY BASED EFFLUENT LIMITATIONS CALCULATIONS

CALCULATIONS FOR PRODUCTION-BASED
BPT, BCT, AND BAT EFFLUENT LIMITATIONS
FOR
CONOCOPHILLIPS COMPANY
SANTA MARIA FACILITY

References:

1) 40 CFR Part 419 Subpart B Effluent Limitations Guidelines for the Petroleum Refining Point Source Category (Cracking Subcategory)
2) NPDES Application for Permit Reissuance (September 2006)
3) Refinery Production Data January 2002 – December 2005, provided by the facility

Production-Based Effluent Limitations

STEP 1: Determine the size factor based on the refinery feedstock rate. Based on 40 CFR § 419 Subpart B, a total refinery throughput of 44.4 kbbl/d results in a

SIZE FACTOR = 0.95

STEP 2: Determine the process configuration based on the process rates:

Process	Process Feedstock Rate (kbbl/d)	Fraction of Total Throughput	Weight Factor	Process Configuration
Total Refinery Throughput = 135 kbbl/d				
CRUDE:				
Atmospheric Distillation	44.4	1		
Vacuum Crude Distillation	32.0	0.72		
TOTAL	76.4	1.72	1	1.72
CRACKING & COKING:				
Delayed Coking	23.2	0.52		
TOTAL	23.2	0.52	6	3.12
TOTAL PROCESS CONFIGURATION =				4.84

(kbbl/d = Thousand Barrels per day)

STEP 3: Determine the process factor. Based on 40 CFR Part 419 Subpart B, a total process configuration of 4.82 results in a

PROCESS FACTOR = 0.88

STEP 4: Based on 40 CFR §§419.22(a), 419.23(a), and 419.24(a), the BPT/BAT/BCT effluent limit is equal to

(THROUGHPUT) X (SIZE FACTOR) X (PROCESS FACTOR) X (EFFLUENT LIMIT FACTOR)

EFFLUENT LIMIT (as lbs/day) = (44.4)(0.95)(0.88)(Effluent Limit Factor)
= (37.12)(Effluent Limit Factor)

Pollutant	Effluent Limit Factor in 40 CFR 419B						Multi-plier	Final Limit Calculated						Final Limit	
	BPT		BAT		BCT			BPT		BAT		BCT			
	Daily Max	30-d Avg	Daily Max	30-d Avg	Daily Max	30-d Avg		Daily Max	30-d Avg	Daily Max	30-d Avg	Daily Max	30-d Avg	Daily Max	30-d Avg
	lb/kbbl	lb/kbbl	lb/kbbl	lb/kbbl	lb/kbbl	lb/kbbl		lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
BOD_5	9.9	5.5			9.9	5.5	37.12	367	204			367	204	367	204
TSS	6.9	4.4			6.9	4.4	37.12	256	163			256	163	256	163
COD	74	38.4	74	38.4			37.12	2,747	1,425	2,747	1,425			2,747	1,425
O&G	3	1.6			3	1.6	37.12	111	59			111	59	111	59
Phenols (4AAP)[1]	0.074	0.036					37.12	2.7	1.3					2.7	1.3
NH_3-N[2]	6.6	3	6.6	3			37.12	245	111	245	111			245	111
Sulfide	0.065	0.029	0.065	0.029			37.12	2.4	1.1	2.4	1.1			2.4	1.1
Total Cr	0.15	0.088					37.12	5.6	3.3	5.6	3.3			5.6	3.3
Hex Cr	0.012	0.0056					37.12	0.4	0.2					0.4	0.2

[1]The BPT limits for these constituents are applicable only if they are more stringent than BAT limits (see STEP 5) below).

STEP 5: Calculate BAT limits pursuant to 40 CFR § 419.23, for phenolic compounds (4AAP), total and hexavalent chromium. The effluent limit is equal to the sum of the products of each effluent limitation factor times the applicable process feedstock rate.

Pollutant	Process Category	BAT Effluent Limit Factors (lb/kbbl)		Feedstock (kbbl/d)	Effluent Limitation (lbs/day)	
		Daily Max.	30-d Average		Daily Max.	30-d Average
Phenolic Compounds (4AAP)	Crude	0.013	0.003	76.4	1.0	0.2
	Cracking & Coking	0.147	0.036	23.2	3.4	0.8
				TOTAL	**4.4**	**1.0**
Total Chromium	Crude	0.011	0.004	76.4	0.8	0.3
	Cracking & Coking	0.119	0.041	23.2	2.8	0.9
				TOTAL	**3.6**	**1.2**
Hexavalent Chromium	Crude	0.0007	0.0003	76.4	0.05	0.02
	Cracking & Coking	0.0076	0.0034	23.2	0.18	0.08
				TOTAL	**0.23**	**0.1**

STEP 6: Compare BAT limitations for phenolic compounds (4AAP), total chromium, and hexavalent chromium with BPT limitations.

Except for the effluent limitations for total chromium and hexavalent chromium, and the daily maximum effluent limitation for phenolic compounds, all the above BAT limitations are more stringent than the BPT limitations calculated in STEP 4. Therefore, limitations for total chromium and hexavalent chromium, and the daily maximum effluent limitation for phenolic compounds have been based on BPT criteria (the monthly average effluent limitation for phenolic compounds has been based on BAT criteria). All of the effluent limitations for the remaining parameters have been based on BAT criteria. It should be noted that the technology based-effluent limitations for ammonia (as N) contained in the Order are not calculated effluent limitations contained above. The ammonia limitations contained in the Order are based on the finding that the Santa Maria Refinery is fundamentally different form those used by USEPA to develop ELGs for the petroleum refining point source category. Technology based-effluent limitations for ammonia (as N) are applied as the FDF limitations (30-day – 220 lbs/day; daily maximum – 290 lbs/day) and not the effluent limitations calculated above.

In addition, the criteria for both BPT and BCT require that the effluent remain between a pH of 6.0 and 9.0 standard units.