STATE OF CALIFORNIA

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

FACT SHEET
WASTE DISCHARGE REQUIREMENTS
for
PNEUMO ABEX AEROSPACE, INCORPORATED

NPDES Permit No.: CA0063894
Public Notice No.: 05-038

FACILITY ADDRESS	FACILITY MAILING ADDRESS
Pneumo Abex Aerospace, Inc.	Environmental Strategies
3151 West Fifth Street	11911 Freedom Drive, Suite 900
Oxnard, CA 93030	Reston, VA 20190
	Contact: John Black
	Telephone: (703) 709-6500

I. Public Participation

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

A. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to:

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

Written submissions pertaining to this proposed Board action must be submitted to the Regional Board staff no later than 5:00 p.m. on June 17, 2005. The Regional Board chair may exclude from the record written materials received after this date. (See Cal. Code Regs., tit. 23, § 648.4.) Submittal of written comments is encouraged to ensure that all comments will be included in the record before the Board.

B. Public Hearing

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

Date: July 7, 2005
Time: 9:00 A.M.
Location: City of Simi Valley
Council Chambers
2929 Tapo Canyon Road
Simi Valley, California

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

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

C. Waste Discharge Requirements Appeals

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

State Water Resources Control Board, Office of Chief Counsel
Attn: Elizabeth Miller Jennings, Senior Staff Counsel
1001 I Street, 22nd Floor
Sacramento, CA 95814

D. Information and Copying

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

E. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Board, reference this facility, and provide a name, address, and phone number.

II. Introduction

Pneumo Abex Aerospace, Inc. (hereinafter Pneumo Abex or Discharger) discharges treated groundwater and storm water to a storm drain which then conveys the wastewater to the West 5th Street Drain (a flood control channel), Edison Canal, Edison Canal Estuary, and eventually to the Pacific Ocean at Mandalay State Beach, a water of the United States. Wastes discharged from Pneumo Abex are regulated by WDRs and a NPDES permit contained in Board Order No. 96-027 (NPDES Permit No. CA0063894). Order No. 96-027 expired on May 1, 2001. A revised monitoring and reporting program (*MRP* CI-7669) was issued on October 12, 2001.

Pneumo Abex filed a Report of Waste Discharge and applied for renewal of its WDRs and NPDES permit on December 6, 2004. The cover letter stated that the application had been originally sent on February 14, 2001, but the Regional Board has no record of this submittal. The cover letter dated February 14, 2001 (received December 6, 2004) requested a variance for metals effluent limitations stating that nickel and chromium exceedances documented are "naturally occurring" in the aquifer under the site. The Regional Board has denied this request and has determined that effluent limitations for nickel and chromium are necessary.

The tentative Order is the reissuance of the WDRs and NPDES permit for discharges from Pneumo Abex. A NPDES permit compliance evaluation inspection (CEI) was conducted on October 28, 2004 that also served as a permitting site visit to observe operations and collect additional data to develop permit limitations and conditions.

III. Description of Facility and Waste Discharge

Pneumo Abex is the former owner of a site located at 3151 West Fifth Street, Oxnard, California. The facility was acquired by F&A Airport Commerce Center Ltd. in June 1997. The facility is a 15-acre site where, from 1960 through 1993, Pneumo Abex manufactured aerospace pumps, valves, and hydraulic systems. Processes conducted at the facility included machining, heat treatment, plating, and part assembly, testing and packaging related to aerospace components. The facility includes two buildings that currently are being used as a warehouse and office space. Two underground storage tanks containing gasoline, waste oil, and solvents were removed from the site in 1986. Previous investigations at the facility revealed the presence of volatile organic compounds (VOCs) in the soil and groundwater. Pursuant to Clean up and Abatement Order No. 95-021, issued by the Regional Board in 1995, an interim soil and groundwater treatment system was constructed to remove and/or contain the subsurface constituents of concern.

The groundwater treatment system is comprised of nine groundwater extraction wells (two of which are active) and an onsite pump-and-treat system that utilizes primarily air stripping to reduce the concentrations of VOCs and petroleum hydrocarbons. Groundwater is pumped from the extraction wells into a 22,000-gallon storage tank. The ultraviolet/oxidation and granular activated carbon components (GAC) of the system are still present at the site but are not in use. Groundwater from the tank is then pumped to the air stripper where VOCs are removed.

Treated groundwater collects in the sump of the air stripper. The treated groundwater can be pumped through two 10,000-pound GAC vessels for polishing or directly into a second 22,000-gallon storage tank. The treated groundwater is then discharged to a storm drain. In addition, any storm water that falls within the bermed area of the facility is collected and routed through the treatment system. The treatment system has been in continuous operation since February 23, 1999; however, during the CEI, the facility representative stated that the liquid phase of the GAC system was taken off-line permanently in 2002. The representative stated that effluent limitations were being met without this part of the treatment process. No record of notification of this change was found in the file during the permit renewal process.

In August of 2004, the facility completed a hydrogen releasing compounds (HRC) injection study to determine the effectiveness of an HRC system in bioremediation of chlorinated VOCs in groundwater. During the CEI, the facility representative stated that the results of the study were positive and that a report would be submitted to the Regional Board.

As noted during the CEI conducted on October 28, 2004, the Discharger evaluated reuse options for the treated groundwater including reinjection into an aquifer, and selling the effluent for agricultural or industrial use. The facility representative stated that these options were not pursued due to cost and implementation difficulties.

Pneumo Abex discharges treated groundwater and storm water into a storm drain located at West Fifth Street, Discharge Serial No. 001, (Latitude 34° 11' 23" North and Longitude 119° 15' 14" West). The treated groundwater and storm water flows through the storm drain to a flood control channel, the West 5th Street Drain, to Edison Canal, Edison Canal Estuary and then to the Pacific Ocean at Mandalay State Beach, a water of the United States (Figure 1). The existing permit established a maximum flow rate of 600 gallons per minute (gpm). The Discharger reported monthly average flow rates, not the maximum flow rate for each month. The maximum average flow reported (between January 1999 – April 2004) was 240 gpm. The overall average throughout the same period was 60 gpm. The permit renewal application reports an average flow rate of 50 gpm and states the treatment system is capable of treating 600 gpm.

The Regional Board and the U.S. Environmental Protection Agency (U.S. EPA) have classified the Pneumo Abex facility as a minor discharge.

Discharge Monitoring Reports (DMRs) submitted to the Regional Board, were available for the period from January 1999 through April 2004. The available DMR data are summarized in the following Table. The data submitted by the Discharger in Form 2C of the NPDES permit application was a summary of previously provided data (as of February 2001) and has been included in the DMR summary that follows.

Pollutant (units)	Maximum Daily Effluent Limitations	Range of Reported Values [1]
Flow (gpm)	600	25 – 243
Temperature. (° F)	--	63 – 73
pH (S.U.)	6.0 – 9.0	6.61 – 8.3
Turbidity (NTU)	75	0.2 – 240
Settleable solids (ml/L)	0.2	<0.1 – 0.40
Sulfide (mg/L)	1.0	<0.05 - <50 [2]
Total chlorine residual (µg/L)	8	NS [3]
Phenols (µg/L) [4]	120	<0.002 - <100
Phenolic compounds (chlorinated) (µg/L) [5]	4	<0.1 - <4
Total petroleum hydrocarbons (TPH) (µg/L) [5]	100	<100 - 500
Benzene (µg/L)	5.9	<0.2
Toluene (µg/L) [4]	85,000	<0.5 - <1.0
Xylene(s) (µg/L)	20	<0.5 - <1.5
Ethylbenzene (µg/L) [4]	4,100	<0.5
1,4-Dichlorobenzene (µg/L)	18	<0.5
1,1,2,2-Tetrachloroethane (µg/L) [4]	1,200	<0.5
Carbon tetrachloride (µg/L)	0.90	<0.5
Trichloroethylene (µg/L)	27	<0.5 – 39
Tetrachloroethylene (µg/L)	99	<0.5 - <1.0
Chloroform (µg/L) [4]	130	<0.5
1,1-Dichloroethylene (µg/L) [4]	7,100	<0.5 – 1.5
1,1,2-Trichloroethane (µg/L) [4]	43,000	<0.5
1,2-Dichloroethane (µg/L) [4]	130	<0.5
Vinyl chloride (µg/L)	36	<0.5
Zinc (µg/L)	80	<10 – 30
Nickel (µg/L)	20	<0.02 – 70
Cadmium (µg/L)	4	<0.02 - <4
Chromium VI (µg/L) [4]	8	<0.002 - <10 [6]
Chromium, total (µg/L) [7]	8	<0.5 – 20
Lead (µg/L)	8	<0.7 – 1
Copper (µg/L)	12	<0.1 – 160
Silver (µg/L)	2.8	<0.04 – 0.50
Arsenic (µg/L)	32	0.27 – 15
Mercury (µg/L)	0.16	<0.04 – 0.12 [8]
Selenium (µg/L)	60	<0.8 – 5
Chronic toxicity (TU_c)	1.0	<1 - 1

NS – Not sampled; no data reported

[1] Method Detection Limit (MDL) reported when no detections occurred.

[2] Two instances of the MDL > effluent limitation were reported for sulfide.

[3] Certification that no chlorine was used could substitute for chlorine monitoring.

[4] Limitation stated in mg/L in Order 96-027 but reported in µg/L.

[5] Not defined in existing Order.

[6] Discharger could meet this limitation as a total chromium limitation.

[7] Two instances of the MDL > effluent limitation were reported for hexavalent chromium.

[8] Only detection, but two instances of the MDL > effluent limitation (0.2 µg/L) for mercury were reported.

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

Date	Monitoring Period	Violation Type	Pollutant	Value Reported by Laboratory	Permit Limitation	Units
7/13/1999	3rd Quarter 1999	Daily maximum	Settleable solids	0.4	0.2	ml/L
7/13/1999	3rd Quarter 1999	Daily maximum	Turbidity	240	75	NTU
9/29/1999	3rd Quarter 1999	Daily maximum	Chromium	10	8	µg/L
11/18/1999	4th Quarter 1999	Daily maximum	Nickel	70	20	µg/L
2/7/2000	1st Quarter 2000	Daily maximum	Trichloroethylene	39	27	µg/L
9/21/2000	3rd Quarter 2000	Daily maximum	Total chromium	20	8	µg/L
9/21/2000	3rd Quarter 2000	Daily maximum	Copper	160	12	µg/L
3/9/2001	1st Quarter 2001	Daily maximum	Total chromium	20	8	µg/L
4/10/2001	2nd Quarter 2001	Daily maximum	Total chromium	9	8	µg/L
7/17/2002	3rd Quarter 2002	Daily maximum	TPH	500 [1]	100	µg/L

[1] Laboratory report indicated that no petroleum hydrocarbons were found in this sample and the exceedance could have been caused by algae in the storage tank.

A notice of violation was issued on November 27, 2000 for the violations reported on September 21, 2000 and an Administrative Civil Liability (Compliant No. 00-152) in the amount of $3,000 was assessed.

IV. Applicable Plans, Policies, and Regulations

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

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

2. Code of Regulations, Title 40 (40 CFR) – Protection of Environment, Chapter I, Environmental Protection Agency, Subchapter D, Water Programs, sections 122-125 and Subchapter N, Effluent Guidelines. These CWA regulations provide effluent limitations for certain dischargers and establish procedures for NPDES permitting, including how to establish effluent limitations for certain pollutants discharged by Pneumo Abex.

3. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains water quality objectives and beneficial uses for inland surface waters and for the Pacific Ocean. The Basin Plan does not contain beneficial uses and water quality objective for

the Edison Canal. It does contain beneficial uses and water quality objectives for the Edison Canal Estuary and for Pacific Ocean at Mandalay Beach (Hydrologic Unit Code 403.11).

Edison Canal Estuary

Existing Uses: Industrial service supply, contact[1] and non-contact recreation, marine habitat[2], wildlife habitat, and preservation of rare, threatened or endangered species[3].

[1] Beneficial uses apply to all tributaries of the indicated waterbody.
[2] Marine habitats of the Channel Islands serve as pinniped heard-out areas for one or more marine species.
[3] One or more rare species utilize all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

Mandalay Beach

Existing Uses: Navigation, contact and non-contact recreation, commercial and sport fishing, marine habitat, wildlife habitat, shellfish harvesting, and preservation of rare, threatened or endangered species[1].

[1] One or more rare species utilize all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

4. Ammonia Basin Plan Amendment. The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life*. The ammonia Basin Plan amendment was approved by the State Board, the Office of Administrative Law, and U.S. EPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they are still protective of aquatic life and are consistent with U.S. EPA's 1999 ammonia criteria update.

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

6. On May 18, 2000, the U.S. EPA promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR section 131.38]. In the CTR, U.S. EPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. The CTR criteria for saltwater or human health for consumption of organisms, whichever is more stringent, are used to develop the effluent

limitations in this Order to protect the beneficial uses of Mandalay Beach. The CTR also allows for a schedule of compliance not to exceed 5 years from the date of permit renewal for an existing discharger if the Discharger demonstrates that it is infeasible to promptly comply with effluent limitations derived from the CTR criteria. CTR's Compliance Schedule provisions sunseted on May 17, 2005. Compliance schedules for CTR WQBELs after this sunset date, will be established using the SIP, not to exceed May 17, 2010.

7. On March 2, 2000, State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP*).* The SIP was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through National Toxics Rule (NTR) and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the U.S. EPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP was effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The SIP requires the dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring water quality-based effluent limitations (WQBELs) and to calculate the effluent limitations.

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

9. 40 CFR section 122.44(d)(1)(vi)(A) requires the establishment of numeric effluent limitations to attain and maintain applicable narrative water quality criteria to protect the designated beneficial uses. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that WQBELs may be set based on U.S. EPA criteria and supplemented, where necessary, by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.

10. State and Federal antibacksliding and antidegradation policies require that Regional Board take actions to protect the water quality of a water body and to ensure that the waterbody will not be further degraded. The antibacksliding provisions are specified in sections 402(o) and 303(d)(4) of the CWA and in 40 CFR section 122.44(l). Those provisions require a reissued permit to be as stringent as the existing permit with some exceptions where effluent limitations may be relaxed.

11. Effluent limitations are established in accordance with sections 301, 304, 306, and 307 of the federal CWA, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of Edison Canal and Mandalay Beach.

12. Existing waste discharge requirements are contained in Board Order No. 96-027, adopted by the Regional Board on May 6, 1996. In some cases, permit conditions (effluent limitations and other special conditions) established in the existing waste discharge requirements have been carried over to this permit.

V. Regulatory Basis for Effluent Limitations

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

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

1. Best practicable treatment control technology (BPT) is based on the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.

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

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

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

The CWA requires U.S. EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BCT, BAT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR section 125.3 of the NPDES regulations authorize the use of Best Professional Judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern.

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

There are several other specific factors affecting the development of limitations and requirements in the proposed Order. These are discussed as follows:

1. **Pollutants of Concern**

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

   Pneumo Abex operates a groundwater remediation system for groundwater that has been contaminated with VOCs and also treats some storm water captured at the site. Typical pollutants expected to be present in the discharge of treated groundwater may include solids, inorganic compounds (including metals), and VOCs.

   Many of the effluent limits in the existing Order were developed assuming that the discharge from Pneumo Abex was an Ocean discharge. The tentative requirements treat the discharge from the facility as an inland surface water discharge. The facility discharges from Outfall 001 to the storm drain that connects to the West 5th Street Drain. The West 5th Street Drain empties into Edison Canal, an inland surface water. The Basin Plan does not list beneficial uses for Edison Canal. However, it does list beneficial uses for the Edison Canal Estuary and for Mandalay Beach.

   Effluent limitations for Discharge Serial No. 001 in the existing permit were established for turbidity, settleable solids, and metals. Dissolved solids (present as ions), metals, and sulfides may occur in groundwater naturally and are expected to be present in the discharge at some level; therefore, turbidity, settleable solids, metals, and sulfides are considered pollutants of concern. Further, because prior operations at the site included removal of underground storage tanks that contained gasoline, waste oils, and solvents, the treated groundwater may contain oil and grease, and other VOCs. Therefore, these parameters are considered pollutants of concern in this discharge.

   Effluent limitations for Discharge Serial No. 001 in the existing permit were established for TPH, toluene, benzene, xylenes, ethylbenzene, 1,4-dichlorobenzene, 1,1,2,2-

tetrachloroethane, carbon tetrachloride, trichloroethylene, tetrachloroethylene, chloroform, 1,1-dichloroethylene, 1,1,2-trichloroethane, 1,2-dichloroethane, and vinyl chloride because previous investigations either revealed their presence at the facility or because these chemicals may have been used during or released from the previous processes related to the production of aerospace components. These constituents may still be present in the treated groundwater and are therefore considered pollutants of concern.

Treated groundwater and storm water have the potential to affect the pH and temperature of the receiving water body; therefore, effluent limitations for pH and temperature are established in this permit to be consistent with the requirements of the Basin Plan.

2. **Technology-Based Effluent Limitations**

There are currently no national ELGs for groundwater treatment systems. It should be noted that the existing Order stated that the current treatment system was considered to be the BAT economically achievable for the extracted groundwater.

3. **Water Quality-Based Effluent Limitations**

As specified in 40 CFR section 122.44(d)(1)(i), permits are required to include WQBELs for toxic pollutants (including toxicity) that are or may be discharged at levels which cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses for the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria (that are contained in other state plans and policies, or U.S. EPA water quality criteria contained in the CTR and NTR). The specific procedures for determining reasonable potential, and if necessary for calculating WQBELs, are contained in the SIP.

The CTR contains both saltwater and freshwater criteria. According to 40 CFR section 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time. The receiving water is Mandalay Beach, a coastal waterway. The CTR criteria for saltwater or human health for consumption of organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of Edison Canal and Mandalay Beach.

(a) Reasonable Potential Analysis (RPA)

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

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

1) Trigger 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limitation is needed.

2) Trigger 2 – If MEC<C and background water quality (B) > C, a limitation is needed.

3) Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

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

The RPA was performed for the priority pollutants for the following pollutants which effluent data were available: arsenic, cadmium, chromium (III), chromium (VI), copper, lead, mercury, nickel, selenium, silver, zinc, benzene, carbon tetrachloride, chloroform, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, ethylbenzene, 1,1,2,2-tetrachloroethane, tetrachloroethylene, toluene, 1,1,2-trichloroethane, trichloroethylene, vinyl chloride, and 1,4-dichlorobenzene. Data required by the existing Monitoring and Reporting Program *(MRP)* (CI-7669) for Discharge Serial No. 001 were provided by the facility between January 1999 and April 2004. All applicable priority pollutant data were used to perform the RPA and are summarized in Attachment A.

Based on the statistical RPA, there is reasonable potential to exceed water quality standards at Discharge Serial No. 001 for copper, mercury and nickel. Thus, revised effluent limitations and effluent monitoring requirements for copper, mercury and nickel have been established. WQBELs have been determined according to the procedures specified in the SIP, and are based on the criteria in the CTR.

Monitoring data for the existing permit term indicated no detections of 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2-dichloroethane, 1,4-dichlorobenzene, benzene, carbon tetrachloride, chloroform, ethylbenzene, tetrachloroethylene, toluene, and vinyl chloride using appropriate method detection limits; and therefore, no reasonable potential was demonstrated for these pollutants. The tentative requirements do not include effluent limits for them. Monitoring data yielded detected concentrations of 1,1-dichloroethylene and trichloroethylene. Since these contaminants are chemicals of concern and the detected concentrations may be sufficient to cause or contribute to an excursion, effluent limits for them have been included. The WQBELs for 1,1-dichloroethylene and trichloroethylene were determined according to the procedures specified in the SIP, and are based on the criteria in the CTR.

Total petroleum hydrocarbons were also identified as a chemical of concern at the site. Monitoring data yielded excursions above the prescribed limit during the tenure of the existing Order. Hence, reasonable potential for the constituent to cause or contribute to an excursion has been established and an effluent limit for the constituent has been included.

Metals were also determined to be chemicals of concern at the site. Reasonable potential was demonstrated for copper, mercury, and nickel. Detected contaminant concentrations for other metals included in the exiting Order, including zinc, cadmium, lead, silver, arsenic, selenium and silver were evaluated but determined to be insufficient to establish reasonable potential. Hence, no effluent limits have been included for these constituents. The detected concentration of chromium exceeded the effluent limit of 8 μg/L (daily maximum) included in the existing Order. The 8 μg/L limit was selected since the discharge had been erroneously characterized as an Ocean discharge. The proposed Order reclassified the discharge as an inland surface water discharge. Hence, the CTR and SIP provided the applicable criteria. The CTR criteria were used to develop an AMEL and a MDEL for Chromium VI, which has been included in the tentative Order.

The Regional Board determined that VOCs and metals are contaminants of concern and will be monitored frequently during the tenure of the tentative Order. The SIP requires that sufficient data be provided to conduct the RPA for all priority pollutants and to calculate the effluent limitations as necessary. As stated previously, there were no monitoring data for many priority pollutants; therefore, the RPA could not be completed for all priority pollutants. The proposed Order includes monitoring requirements to obtain the necessary data for all CTR priority pollutants.

(b) Calculating WQBELs

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

1) If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).

2) Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).

3) Where sufficient effluent and receiving water data exist, use of a dynamic model that has been approved by the Regional Board.

(c) Impaired Water Bodies in 303 (d) List

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

The U.S. EPA approved the State's 2002 303(d) list of impaired water bodies on July 25, 2003. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2002 303(d) list and have been scheduled for TMDL development.

The 2002 State Board's California 303(d) List does not list Edison Canal, Edison Canal Estuary, or Mandalay Beach as impaired.

(d) Whole Effluent Toxicity

Whole Effluent Toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and measures mortality, reproduction, and growth.

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

The existing permit did not contain acute toxicity limitations or monitoring requirements. In accordance with the Basin Plan, acute toxicity limitations dictate that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. Consistent with Basin Plan requirements, the proposed Order includes acute toxicity limitations.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. The existing permit contains chronic toxicity limitations and monitoring requirements. Chronic toxicity data for the years 1999 through 2004 were submitted by the facility to the Regional Board. All tests resulted in 1.0 TU_c or less. The discharges at the Pneumo Abex facility

occur continuously, and due to the types of pollutants present in the groundwater treated at the site, could contribute to long-term toxic effects. Therefore this requirement will be carried over into the proposed Order.

In addition, the proposed Order carries over the chronic testing trigger included in the revised *MRP* hereby defined as an exceedance of 1.0 toxic units chronic (TU_c) in a critical life stage test for 100% effluent. If the chronic toxicity of the effluent exceeds 1.0 TU_c, the Discharger will be required to immediately implement accelerated chronic toxicity testing according to the Monitoring and Reporting Program, Item IV.D.1. If the results of two of the six accelerated tests exceed 1.0 TU_c, the Discharger shall initiate a toxicity identification evaluation (TIE).

4. **Specific Rationale for Each Numerical Effluent Limitation**

Section 402(o) of the Clean Water Act and 40 CFR section 122.44(l) require that effluent limitations, standards, or conditions in re-issued permits are at least as stringent as in the existing permit. Therefore, existing effluent limitations for many of the regulated pollutants are carried over to this permit. The requirements in the proposed Order for certain conventional,and non-conventional (i.e. suspended solids, turbidity, settleable solids, TPH) are based on effluent limitations specified in Pneumo Abex's existing permit. The CTR effluent limits have been included for 1,1-dichloroethylene and trichloroethylene have been included in the tentative Order. The effluent limitation for pH is based on the Basin Plan, and the effluent limitation for temperature is based on the Thermal Plan.

In addition to these limitations, the Regional Board is implementing the CTR and SIP, and effluent limitations are required for those regulated pollutants that show reasonable potential to exceed water quality standards. Based on the RPA, there is reasonable potential to exceed water quality standards at Discharge Serial No. 001 for copper, mercury and nickel. For copper, mercury, and nickel the existing permit limitations are less stringent; therefore, CTR-based WQBELs are included in the proposed Order.

The existing Order allowed the Discharger to meet the chromium (VI) effluent limitation with a total chromium analysis. The proposed permit has established a CTR-based effluent limitation for chromium (VI) only. Total chromium measures the combined levels of trivalent chromium (chromium (III)) and hexavalent chromium (chromium (VI)). Chromium (III) occurs naturally in the environment and is an essential nutrient, while chromium (VI) is generally produced by industrial processes. Because chromium (VI) is more toxic than the chromium (III) form, and total chromium typically captures the naturally occurring chromium (III) form, monitoring for chromium (VI) instead of total chromium will better indicate the toxicity of the effluent. The existing effluent limitation for total chromium was exceeded on several occasions. However, since the analysis includes chromium III, it is not possible to determine the amount of chromium VI that was actually present. The CTR-based WQBEL is established for chromium (VI) in the tentative permit.

The effluent limitations for 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2-dichloroethane, 1,4-dichlorobenzene, benzene, carbon tetrachloride, chloroform, ethylbenzene, tetrachloroethylene, toluene, cadmium, and vinyl chloride are included in the existing Order. Monitoring data for the existing permit term indicated no detections of 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2-dichloroethane, 1,4-dichlorobenzene, benzene, cadmium, carbon tetrachloride, chloroform, ethylbenzene, tetrachloroethylene, toluene, and vinyl chloride using appropriate method detection limits. Further, they did not demonstrate reasonable potential. Regional Board staff determined that these pollutants except cadmium, continue to be chemicals of concern. The monitoring frequency for these constituents will be the same as for those constituents determined to have reasonable potential, but the tentative Order does not include effluent limits for them.

Effluent limitations are being retained for chromium (VI), 1,1-dichloroethylene and trichloroethylene due to the fact that detections were reported, even though these pollutants did not show statistical reasonable potential to exceed water quality criteria. Best Professional Judgement was used to establish reasonable potential and effluent limits for these constituents are included in the tentative Order.

Due to insufficient data to perform a reasonable potential analysis, no effluent limitations have been established for a number of priority pollutants. Monitoring requirements have been established to determine the reasonable potential of the discharge. The Regional Board reserves the right to amend this Order at anytime to include effluent limitations for other pollutants based on the sampling results.

In compliance with 40 CFR section 122.45(d) and supported by the TSD, permit limitations shall be expressed, unless impracticable, as both average monthly effluent limitations (AMELs) and maximum daily effluent limitations (MDELs). The AMELs for turbidity and settleable solids are based on similar NPDES permits recently issued by the Regional Board. The AMELs and MDELs for copper, mercury, nickel, Chromium VI, trichloroethylene, and 1,1-dichloroethylene are calculated according to the requirements in the CTR. The Regional Board continued effluent limitations for TPH based on the effluent limitation established in the previous Order and BPJ. Therefore, the effluent limitation is expressed as MDEL only.

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

Mass (lbs/day) = flow rate (mgd) X 8.34 X effluent limitation (mg/L)
where: mass = mass limitation for a pollutant (lbs/day)
effluent limitation = concentration limitation for a pollutant (mg/L)
flow rate = discharge flow rate (MGD)

No mass-based effluent limitations are contained in the existing Order. The permit application transmittal letter (dated February 14, 2001, transmitted December 6, 2004) states the treatment system's maximum discharge flow rate is 600 gpd. The renewal application states the average flow rate is 50 gpm (72,000 gpd). The existing permit limited the discharge flow to a maximum discharge of 600 gpm. Data submitted for the period of 1997 through 2003 indicate average flow rates ranging from 25 gpm to 240 gpm. No maximum flow rates were reported during the permit term. For the purposes of establishing mass-based effluent limitations for the proposed Order and in the absence of reported maximum flows from the permit term, a maximum discharge flow rate of 600 gpm (864,000 gpd) is carried over. If the Discharger wishes to discharge at higher volumes they must notify the Regional Board and request modification to this permit.

The following Table presents the effluent limitations and specific rationales for pollutants that are expected to be present in the discharge of treated ground water and storm water through Discharge Serial No. 001 (Latitude 34° 11' 23" North and Longitude 119° 15' 14" West):

Pollutant	Units	Maximum Daily Effluent Limitation	Average Monthly Effluent Limitation	Rationale [1]
Temperature	°F	86	--	TP
pH	s.u.	6.5 – 8.5 [2]	--	BP
Turbidity	NTU	75	50	E, BPJ
Settleable solids	ml/L	0.2	0.1	E, BPJ
Total petroleum hydrocarbons (gasoline)	µg/L	100	--	E, BPJ
	lbs/day[3]	0.7	--	
Trichloroethylene	µg/L	163	81	BPJ, CTR
	lbs/day[3]	1.2	0.6	
1,1-dichloroethylene	µg/L	6.4	3.2	BPJ, CTR
	lbs/day[3]	0.05	0.02	
Chromium VI [4]	µg/L	83	41	BPJ, CTR
	lbs/day[3]	0.6	0.3	
Copper [4]	µg/L	5.8	2.9	CTR, SIP
	lbs/day[3]	0.04	0.02	
Mercury [4]	µg/L	0.102	0.051	CTR, SIP
	lbs/day[3]	0.0007	0.0004	
Nickel [4]	µg/L	13.6	6. 8	CTR, SIP
	lbs/day[3]	0.1	0.05	
Acute toxicity	% survival	[5]		BP
Chronic toxicity	TU_c	[6]		E, SIP

[1] BP – Limitations are established in the Basin Plan; CTR, SIP - Water quality-based effluent limitations established based on the procedures in the SIP; E - Existing permit limitation; BPJ – Best Professional Judgment; TP – Limitation is based on the Thermal Plan

[2] The pH must remain within this range at all times.

[3] Mass-based effluent limitations for pollutants are based on a maximum discharge flow rate of 600 gpm (864,000 gpd).

[4] Effluent limitations for these metals are expressed as total recoverable.

[5] For any three consecutive 96-hour static or continuous flow bioassay tests must be at least 90 percent, with no single test producing less than 70 percent survival (more information can be found in Section I.B.3.a. of the proposed Order).

[6] The chronic toxicity trigger is as follows: the monthly median for chronic toxicity of 100 percent effluent shall not exceed 1 TU_c in a critical life stage test (more information can be found in Section I.B.3.b. of the proposed Order).

5. Compliance Schedule

Based on effluent monitoring data submitted by the Discharger, a comparison between the MEC and calculated AMEL values shows that the Discharger may be unable to consistently comply with effluent limitations established in the proposed Order for copper, mercury and nickel. Hence, interim limitations have been prescribed for copper, mercury and nickel. The proposed Order contains a compliance schedule that allows the Discharger up to three years to comply with the revised effluent limitations. Within one year after the effective date of the Order, the Discharger must prepare and submit a compliance plan that describes the steps that will be taken to ensure compliance with applicable limitations. The Discharger must ensure laboratory analytical methods achieve detection limitations below the proposed WQBELs.

40 CFR section 131.38(e) provides conditions under which interim effluent limitations and compliance schedules may be issued. The SIP allows inclusion of an interim limitation with a specific compliance schedule included in a NPDES permit for priority pollutants if the limitation for the priority pollutant is CTR-based. Because the CTR-based effluent limitations for copper, mercury and nickel appear infeasible for the Discharger to achieve at this time, interim limitations are contained in this Order.

The SIP requires that the Regional Board establish other interim requirements such as requiring the discharger to develop a pollutant minimization plan and/or source control measures, and participate in the activities necessary to achieve the final effluent limitations. These interim limitations shall be effective until July 31, 2008, after which, the Discharger shall demonstrate compliance with the final effluent limitations.

The Regional Board has determined that interim limitations will be included based on current facility performance to maintain existing water quality. When sufficient effluent data exist, a statistical analysis can be performed to calculate the 99th percentile (MDEL) and 95th percentile (AMEL), based on procedures contained in the TSD. The MDEL value is compared to the MEC, and the more stringent of the two serves as the basis for the interim limitation. Effluent data for the period from January 1999 through April 2004 were used in the analysis to calculate interim limitations for Discharge Serial No. 001. For copper and nickel the MEC was greater than the 99th percentile determined from the data; therefore, the 99th percentile will serve as the interim MDEL and the 95th percentile will serve as the AMEL for these pollutants. There was only one detection of mercury during the existing permit term and the MEC is more stringent than the existing limitation, therefore, the MEC will serve as the interim effluent limitation.

From the effective date of this Order until July 31, 2008 the discharge of effluent from Discharge Serial No. 001 (Latitude 34° 11' 23" North and Longitude 119° 15' 14" West)in excess of the following is prohibited:

Pollutant	Maximum Daily Effluent Limitation (units)[1]	Average Monthly Effluent Limitation (units)[1]	Rationale [2]
Copper [3]	17.8 [4] (µg/L)	14.5 (µg/L)	SA
	0.128 (lbs/day)	0.104 (lbs/day)	
Nickel [3]	44.1(µg/L)	33.6 (µg/L)	SA
	0.318 (lbs/day)	0.242 (lbs/day)	
Mercury	0.12 (µg/L)	--	MEC
	0.0007 (lbs/day)	--	

[1] The mass-based effluent limitations are based on a flow rate of 600 gpm (864,000 gallons per day).
[2] MEC – Based on the maximum effluent concentration reported by the facility. SA = Statistical Analysis: 99th percentile determined from the submitted data for MDEL; 95th percentile determined from the submitted data for AMEL.
[3] Discharge limitations for these metals are expressed as total recoverable.
[4] One detection which occurred on September 21, 2000 (160 µg/L) is being considered an outlier for purposes of interim limitation development. Discharger made this claim in letter to the Regional Board on August 10, 2001; therefore, MEC = 19 (µg/L).

The Discharger will be required to develop and implement a compliance plan that will identify the measures that will be taken to reduce the concentrations of copper, mercury and nickel in their discharge. This plan should evaluate options to achieve compliance with the revised permit limitations for copper, mercury and nickel. These options can include, for example, evaluating and upgrading available treatment unit processes, and maintaining proper operation and maintenance of the treatment system.

6. **Monitoring Requirements**

The previous *MRP* (CI-7669) for Order No. 96-027 was revised on October 12, 2001. This revised *MRP* required monthly monitoring for total flow, pH, temperature, turbidity, settleable solids, residual chlorine, sulfides, TPH, and trichloroethylene. Quarterly monitoring was required for benzene, toluene, xylene, ethylbenzene, 1,4-dichlorobenzene, 1,1,2,2-tetrachloroethane, carbon tetrachloride, tetrachloroethylene, chloroform, 1,1-dichloroethylene, 1,1,2-trichloroethane, 1,2-dichloroethane, 1,1-dichlorethylene, vinyl chloride, total chromium, chromium (VI), and copper. Further, the existing *MRP* required annual monitoring for phenols, chlorinated phenolic compounds, zinc, nickel, cadmium, lead, silver, arsenic, mercury, and selenium. Chronic toxicity sampling was required quarterly except in the event of an exceedance when the frequency was to be increased to monthly until compliance was demonstrated for three consecutive months.

The annual sampling was to be converted to quarterly if the results exceeded the effluent limitation until three consecutive samples were non-detectable. The quarterly sampling for all parameters, except total chromium, were to be converted to monthly if the results exceeded the effluent limitation until three consecutive samples demonstrated compliance.

Monitoring requirements are discussed in greater detail in Section III of the *MRP* No. 7669. As described in the *MRP*, monitoring reports must be submitted quarterly.

(a) Effluent Monitoring

To demonstrate compliance with effluent limitations established in the permit, and to assess the impact of the discharge to the beneficial uses of the receiving waters, this Order carries over the existing monitoring requirements for many parameters. Monthly monitoring requirements are carried over for pH, temperature, turbidity, settleable solids, TPH, trichloroethylene, copper, mercury, and nickel in order to determine compliance with effluent limitations. In addition, quarterly monitoring is required for 1,1-dichlorethylene, and chromium (VI) with a footnote to increase the frequency to monthly if the effluent limit is exceeded. Annual monitoring for zinc, lead, silver, arsenic, and selenium. Daily monitoring for total waste flow is required. Monitoring data during the existing permit term suggest that the Discharger has the potential to exceed the CTR water quality criteria for aquatic life for copper, mercury and nickel; therefore, monitoring requirements have been increased to monthly. Acute and chronic toxicity sampling is required annually as is all other priority pollutants except asbestos.

Accelerated monitoring is required if analytical results exceed effluent limitations established in the proposed Order. The requirement that the quarterly monitoring of 1,1-dichloroethylene and chromium VI be converted to monthly if the results exceed the effluent limitation until three consecutive samples were non-detectable has been carried over.

In addition to monitoring to determine compliance with effluent limitations established in the Order, the Discharger is also required to monitor the effluent for the remaining priority pollutants annually, to determine their presence in the effluent and provide data to conduct the RPA in the future.

Monitoring for Methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), tertiary amyl methyl ether (TAME), and Di-isopropyl ether (DIPE) have been required because these compounds are associated with gasoline and may be refractive to treatment.

Grab samples are required for all limited pollutants as per the existing permit. A twenty-four hour composite sample is required for the chronic toxicity test. This Order also requires the Discharger to collect the effluent sample prior to the effluent entering the storm drain located at West Fifth Street.

(b) Receiving Water Monitoring

The Discharger is required to monitor the receiving water for the California Toxics Rule priority pollutants, to determine reasonable potential. Pursuant to the SIP, the Discharger is required to submit data sufficient for: (1) determining if WQBELs for priority pollutants are required, and (2) to calculate effluent limitations, if required. The SIP requires that the Regional Boards require periodic monitoring for pollutants in the receiving water to

provide data representing ambient background conditions. Accordingly, the Regional Board is requiring that the Discharger conduct receiving water monitoring of the priority pollutants listed in Section VI of the *MRP*. The results of monitoring for reasonable potential determination shall be submitted in accordance with Section I.A of the *MRP*. Receiving water sampling shall be conducted at the same time as the effluent. The receiving water monitoring location shall be within 50 feet upstream of the discharge point (storm drain) into the flood control channel.

Monitoring requirements for receiving water are discussed in greater detail in Sections V and VI of the *MRP*.

(c) Monitoring for Reasonable Potential Determination

The SIP states that the Regional Board should require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established.

The proposed permit will combine the periodic reporting requirements of the SIP with the existing permit monitoring requirements. The Regional Board is requiring, as part of the *MRP*, that the Discharger conduct annual effluent and receiving water monitoring for the priority pollutants (except for 2,3,7,8-TCDD, discussed below) for which there are no effluent limitations established in the permit.

The Regional Board is requiring, as part of the *MRP*, that the Discharger conduct effluent and receiving water monitoring for 2,3,7,8 TCDD, twice during the permit term (once during the 2nd year of the permit and once during the 4th year) of the permit term. The SIP requires monitoring for 2,3,7,8-TCDD and the 17 congeners listed in the table below. The Discharger is required to calculate Toxic Equivalence (TEQ) for each congener by multiplying its analytical concentration by the appropriate Toxicity Equivalence Factors (TEF) provided below.

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

Congeners	TEF
1,2,3,7,8,9-hexa CDF	0.1
2,3,4,6,7,8-hexa CDF	0.1
1,2,3,4,6,7,8-hepta CDF	0.01
1,2,3,4,7,8,9-hepta CDF	0.01
Octa CDF	0.0001

Because the characteristics of the wastewater being treated by the Discharger are not expected to vary significantly over time, grab samples are required for all pollutants to be monitored.

This monitoring shall occur at the following locations:

- Effluent discharge point (Discharge Serial No. 001 prior to entry into storm drain).
- Receiving water. The monitoring station shall be at 50 feet upstream from the discharge point of the Edison Canal.