Table B

Summary of Communication Requirements for Unauthorized Discharges<sup>1</sup> from Municipal Wastewater Treatment Plants

Discharger is required to:	Agency Receiving Information	Time frame	<b>Method for Contact</b>
	State Office of Emergency Services (OES)	As soon as possible, but not later than <b>2 hours</b> after becoming aware of the unauthorized discharge.	Telephone – (800) 852-7550 (obtain a control number from OES)
1. Notify	Local health department	As soon as possible, but not later than <b>2 hours</b> after becoming aware of the unauthorized discharge.	Depends on local health department
	Regional Water Board	As soon as possible, but not later than <b>2 hours</b> after becoming aware of the unauthorized discharge.	Electronic <sup>5</sup> www.wbers.net
2. Certify	Regional Water Board	As soon as possible, but not later than <b>24 hours</b> after becoming aware of the unauthorized discharge.	Electronic <sup>6</sup> www.wbers.net
3. Report	Regional Water Board	Within <b>5 business days</b> of becoming aware of the unauthorized discharge.	Electronic <sup>7</sup> www.wbers.net

California Code of Regulations, Title 23, Section 2250(b), defines an unauthorized discharge to be a discharge, not regulated by waste discharge requirements, of treated, partially treated, or untreated wastewater resulting from the intentional or unintentional diversion of wastewater from a collection, treatment or disposal system.

In the event that the Discharger is unable to provide online notification within 2 hours of becoming aware of an unauthorized discharge, it shall phone the Regional Water Board's spill hotline at (510) 622-2369 and convey the same information contained in the notification form. In addition, within 3 business days of becoming aware of the unauthorized discharge, the Discharger shall enter the notification information into the Regional Water Board's online system in electronic format.

In most instances, the 2-hour notification will also satisfy 24-hour certification requirements. This is because the notification form includes fields for documenting that OES and the local health department have been contacted. In other words, if the Discharger is able to complete all the fields in the notification form within 2 hours, certification requirements are also satisfied. In the event that the Discharger is unable to provide online certification within 24 hours of becoming aware of an unauthorized discharge, it shall phone the Regional Water Board's spill hotline at (510) 622-2369 and convey the same information contained in the certification form. In addition, within 3 business days of becoming aware of the unauthorized discharge, the Discharger shall enter the certification information into the Regional Water Board's online system in electronic format.

If the Discharger cannot satisfy the 5-day reporting requirements via the Regional Water Board's online reporting system, it shall submit a written report (preferably electronically in pdf) to the appropriate Regional Water Board case manager. In cases where the Discharger cannot satisfy the 5-day reporting requirements via the online reporting system, it must still complete the Regional Water Board's online reporting requirements within 15 calendar days of becoming aware of the unauthorized discharge.

# VIII. DEFINITIONS – THIS SECTION IS AN ADDITION TO STANDARD PROVISIONS (ATTACHMENT D)

More definitions can be found in Attachment A of this NPDES Permit.

#### 1. Arithmetic Calculations

a. <u>Geometric mean</u> is the antilog of the log mean or the back-transformed mean of the logarithmically transformed variables, which is equivalent to the multiplication of the antilogarithms. The geometric mean can be calculated with either of the following equations:

Geometric Mean = 
$$Anti \log \left( \frac{1}{N} \sum_{i=1}^{N} Log(C_i) \right)$$

or

Geometric Mean = 
$$(C_1 * C_2 * ... * C_N)^{1/N}$$

Where "N" is the number of data points for the period analyzed and "C" is the concentration for each of the "N" data points.

b. Mass emission rate is obtained from the following calculation for any calendar day:

Mass emission rate (lb/day) = 
$$\frac{8.345}{N} \sum_{i=1}^{N} Q_i C_i$$

Mass emission rate (kg/day) = 
$$\frac{3.785}{N} \sum_{i=1}^{N} Q_i C_i$$

In which "N" is the number of samples analyzed in any calendar day and " $Q_i$ " and " $C_i$ " are the flow rate (MGD) and the constituent concentration (mg/L) associated with each of the "N" grab samples that may be taken in any calendar day. If a composite sample is taken, " $C_i$ " is the concentration measured in the composite sample and " $Q_i$ " is the average flow rate occurring during the period over which the samples are composited. The daily concentration of a constituent measured over any calendar day shall be determined from the flow-weighted average of the same constituent in the combined waste streams as follows:

$$C_d$$
 = Average daily concentration =  $\frac{1}{Q_i} \sum_{i=1}^{N} Q_i C_i$ 

In which "N" is the number of component waste streams and "Q" and "C" are the flow rate (MGD) and the constituent concentration (mg/L) associated with each of the "N" waste streams. "Qt" is the total flow rate of the combined waste streams.

c. <u>Maximum allowable mass emission rate</u>, whether for a 24-hour, weekly 7-day, monthly 30-day, or 6-month period, is a limitation expressed as a daily rate determined with the formulas in the

paragraph above, using the effluent concentration limit specified in the permit for the period and the specified allowable flow.

d. <u>POTW removal efficiency</u> is the ratio of pollutants removed by the treatment facilities to pollutants entering the treatment facilities (expressed as a percentage). The Discharger shall determine removal efficiencies using monthly averages (by calendar month unless otherwise specified) of pollutant concentration of influent and effluent samples collected at about the same time and using the following equation (or its equivalent):

Removal Efficiency (%) =  $100 \times [1-(Effluent Concentration/Influent Concentration)]$ 

- 2. <u>Biosolids</u> means the solids, semi-liquid suspensions of solids, residues, screenings, grit, scum, and precipitates separated from or created in wastewater by the unit processes of a treatment system. It also includes, but is not limited to, all supernatant, filtrate, centrate, decantate, and thickener overflow and underflow in the solids handling parts of the wastewater treatment system.
- 3. <u>Blending</u> is the practice of recombining wastewater that has been biologically treated with wastewater that has bypassed around biological treatment units.
- 4. <u>Bottom sediment sample</u> is (1) a separate grab sample taken at each sampling station for the determination of selected physical-chemical parameters, or (2) four grab samples collected from different locations in the immediate vicinity of a sampling station while the boat is anchored and analyzed separately for macroinvertebrates.
- 5. Composite sample is a sample composed of individual grab samples collected manually or by an automatic sampling device on the basis of time or flow as specified in the MRP. For flow-based composites, the proportion of each grab sample included in the composite sample shall be within plus or minus five percent (+/-5%) of the representative flow rate of the waste stream being measured at the time of grab sample collection. Alternatively, equal volume grab samples may be individually analyzed with the flow-weighted average calculated by averaging flow-weighted ratios of each grab sample analytical result. Grab samples comprising time-based composite samples shall be collected at intervals not greater than those specified in the MRP. The quantity of each grab sample comprising a time-based composite sample shall be a set of flow proportional volumes as specified in the MRP. If a particular time-based or flow-based composite sampling protocol is not specified in the MRP, the Discharger shall determine and implement the most representative sampling protocol for the given parameter subject to Executive Officer approval.
- 6. <u>Depth-integrated sample</u> is defined as a water or waste sample collected by allowing a sampling device to fill during a vertical traverse in the waste or receiving water body being sampled. The Discharger shall collect depth-integrated samples in such a manner that the collected sample will be representative of the waste or water body at that sampling point.
- 7. <u>Flow sample</u> is an accurate measurement of the average daily flow volume using a properly calibrated and maintained flow measuring device.
- 8. <u>Grab sample</u> is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples represent only the condition that exists at the time the wastewater is collected.
- 9. <u>Initial dilution</u> is the process that results in the rapid and irreversible turbulent mixing of wastewater with receiving water around the point of discharge.

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- 10. <u>Overflow</u> is the intentional or unintentional spilling or forcing out of untreated or partially treated wastes from a transport system (e.g., through manholes, at pump stations, and at collection points) upstream from the treatment plant headworks or from any part of a treatment plant facility.
- 11. <u>Priority pollutants</u> are those constituents referred to in 40 CFR Part 122 as promulgated in the Federal Register, Vol. 65, No. 97, Thursday, May 18, 2000, also known as the California Toxics Rule, the presence or discharge of which could reasonably be expected to interfere with maintaining designated uses.
- 12. <u>Storm water</u> means storm water runoff, snow melt runoff, and surface runoff and drainage. It excludes infiltration and runoff from agricultural land.
- 13. <u>Toxic pollutant</u> means any pollutant listed as toxic under federal Clean Water Act section 307(a)(1) or under 40 CFR 401.15.
- 14. Untreated waste is raw wastewater.
- 15. <u>Waste, waste discharge, discharge of waste, and discharge</u> are used interchangeably in the permit. The requirements of the permit apply to the entire volume of water, and the material therein, that is disposed of to surface and ground waters of the State of California.

# **Table C**List of Monitoring Parameters and Analytical Methods

CTR No.	Pollutant/Parameter	Analytical Method <sup>1</sup>	$hod^1$ (µg/l)												
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP	
1.	Antimony	204.2					10	5	50	0.5	5	0.5		1000	
2.	Arsenic	206.3				20		2	10	2	2	1		1000	
3.	Beryllium						20	0.5	2	0.5	1			1000	
4.	Cadmium	200 or 213				10	0.5	10	0.25	0.5				1000	
5a.	Chromium (III)	SM 3500													
5b.	Chromium (VI)	SM 3500				10	5							1000	
6.	Copper	200.9					25	5	10	0.5	2			1000	
7.	Lead	200.9					20	5	5	0.5	2			10,000	
8.	Mercury	1631 (note) <sup>3</sup>													
9.	Nickel	249.2					50	5	20	1	5			1000	
10.	Selenium	200.8 or SM 3114B or C						5	10	2	5	1		1000	
11.	Silver	272.2					10	1	10	0.25	2			1000	
12.	Thallium	279.2					10	2	10	1	5			1000	
13.	Zinc	200 or 289					20		20	1	10				
14.	Cyanide	SM 4500 CN <sup>-</sup> C or I				5									
15.	Asbestos (only required for dischargers to MUN waters) <sup>4</sup>	0100.2 5													
16.	2,3,7,8-TCDD and 17 congeners (Dioxin)	1613													
17.	Acrolein	603	2.0	5											
18.	Acrylonitrile	603	2.0	2											
19.	Benzene	602	0.5	2											
33.	Ethylbenzene	602	0.5	2											
39.	Toluene	602	0.5	2											
20.	Bromoform	601	0.5	2											
21.	Carbon Tetrachloride	601	0.5	2											
22.	Chlorobenzene	601	0.5	2											
23.	Chlorodibromomethane	601	0.5	2											
24.	Chloroethane	601	0.5	2		ļ									
25.	2-Chloroethylvinyl Ether	601	1	1				1						<b></b>	
26.	Chloroform	601	0.5	2							1				
75.	1,2-Dichlorobenzene 1,3-Dichlorobenzene	601	0.5	2										-	
76.	· ·			2		<del>                                     </del>								$\vdash$	
77.	1,4-Dichlorobenzene	601	0.5	2											

The suggested method is the USEPA Method unless otherwise specified (SM = Standard Methods). The discharger may use another USEPA-approved or recognized method if that method has a level of quantification below the applicable water quality objective. Where no method is suggested, the Discharger has the discretion to use any standard method.

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<sup>&</sup>lt;sup>2</sup> Minimum levels are from the *State Implementation Policy*. They are the concentration of the lowest calibration standard for that technique based on a survey of contract laboratories. Laboratory techniques are defined as follows: GC = Gas Chromatography; GCMS = Gas Chromatography/Mass Spectrometry; LC = High Pressure Liquid Chromatography; Color = Colorimetric; FAA = Flame Atomic Absorption; GFAA = Graphite Furnace Atomic Absorption; ICP = Inductively Coupled Plasma; ICPMS = Inductively Coupled Plasma/Mass Spectrometry; SPGFAA = Stabilized Platform Graphite Furnace Atomic Absorption (i.e., U.S. EPA 200.9); Hydride = Gaseous Hydride Atomic Absorption; CVAA = Cold Vapor Atomic Absorption; DCP = Direct Current Plasma.

The Discharger shall use ultra-clean sampling (USEPA Method 1669) and ultra-clean analytical methods (USEPA Method 1631) for mercury monitoring. The minimum level for mercury is 2 ng/l (or 0.002 ug/l).

<sup>&</sup>lt;sup>4</sup> MUN = Municipal and Domestic Supply. This designation, if applicable, is in the Findings of the permit.

<sup>&</sup>lt;sup>5</sup> Determination of Asbestos Structures over 10 [micrometers] in Length in Drinking Water Using MCE Filters, U.S. EPA 600/R-94-134, June 1994.

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CTR No.	Pollutant/Parameter	Analytical Method <sup>1</sup>													
- 101			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP	
27.	Dichlorobromomethane	601	0.5	2						IVIS		KIDE			
28.	1,1-Dichloroethane	601	0.5	1							1				
29.	1,2-Dichloroethane	601	0.5	2											
30.	1,1-Dichloroethylene or 1,1-Dichloroethene	601	0.5	2											
31.	1,2-Dichloropropane	601	0.5	1										1	
32.	1,3-Dichloropropylene or 1,3-Dichloropropene	601	0.5	2											
34.	Methyl Bromide or Bromomethane	601	1.0	2											
35.	Methyl Chloride or Chloromethane	601	0.5	2											
36.	Methylene Chloride or Dichlorormethane	601	0.5	2											
37.	1,1,2,2-Tetrachloroethane	601	0.5	1							+			-	
38.	Tetrachloroethylene	601	0.5	2							1			<del> </del>	
40.	1,2-Trans-Dichloroethylene	601	0.5	1				<del>                                     </del>			+			<del>                                     </del>	
41.	1,1,1-Trichloroethane	601	0.5	2				1			+			<del></del>	
42.	1,1,2-Trichloroethane	601	0.5	2											
43.	Trichloroethene	601	0.5	2							+				
44.	Vinyl Chloride	601	0.5	2							<del> </del>			<del> </del>	
45.	2-Chlorophenol	604	2	5										<del> </del>	
46.	2,4-Dichlorophenol	604	1	5										-	
40. 47.	2,4-Dimethylphenol	604	1	2											
48.	2-Methyl-4,6-Dinitrophenol or	604	10	5											
49.	Dinitro-2-methylphenol 2,4-Dinitrophenol	604	5	5		<u> </u>					1			├──	
50.	2-Nitrophenol	604	3	10							<del> </del>			<del> </del>	
51.	4-Nitrophenol	604	5	10							+				
52.	3-Methyl-4-Chlorophenol	604	5	10										<del> </del>	
53.	Pentachlorophenol	604	1	5										<del> </del>	
54.	Phenol	604	1	1		50									
55.		604	10	10		30								-	
56.	2,4,6-Trichlorophenol				0.5						<u> </u>			<u> </u>	
50. 57.	Acenaphthene	610 HPLC	1	1							<b>_</b>				
58.	Acenaphthylene	610 HPLC		10	0.2						<b>_</b>				
58. 60.	Anthracene Benzo(a)Anthracene or 1,2	610 HPLC 610 HPLC	10	10 5	2										
<i>C</i> 1	Benzanthracene	(10 LIDL C		10	2						<b>_</b>				
61. 62.	Benzo(a)Pyrene Benzo(b)Fluoranthene or 3,4	610 HPLC 610 HPLC		10	10										
63.	Benzofluoranthene Benzo(ghi)Perylene	610 HPLC		5	0.1	1		<u> </u>						<del>                                     </del>	
	Benzo(gni)Perylene Benzo(k)Fluoranthene					1		<u> </u>						<del>                                     </del>	
64.	1 /	610 HPLC		10	2	-		<b>_</b>		ļ	<del> </del>		ļ	<del> </del>	
74.	Dibenzo(a,h)Anthracene Fluoranthene	610 HPLC	10	10	0.1						<u> </u>			<del>                                     </del>	
86.		610 HPLC	10	1	0.05						<u> </u>			<del>                                     </del>	
87.	Fluorene	610 HPLC		10	0.1	<u> </u>								<u> </u>	
92.	Indeno(1,2,3-cd) Pyrene	610 HPLC		10	0.05	<u> </u>								<u> </u>	
100.	Pyrene DPL 1	610 HPLC	10	10	0.05	<u> </u>								<u> </u>	
68.	Bis(2-Ethylhexyl)Phthalate	606 or 625	10	5				ļ		ļ	ļ		ļ	<u> </u>	
70.	Butylbenzyl Phthalate	606 or 625	10	10				ļ			<del>                                     </del>			<u> </u>	
79.	Diethyl Phthalate	606 or 625	10	2							<del>                                     </del>			<u> </u>	
80.	Dimethyl Phthalate	606 or 625	10	2										<u> </u>	
81.	Di-n-Butyl Phthalate	606 or 625		10							<u> </u>				
84.	Di-n-Octyl Phthalate	606 or 625		10							<u> </u>				

CTR No.	Pollutant/Parameter	Analytical Method <sup>1</sup>	Minimum Levels <sup>2</sup> (μg/l)												
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP	
59.	Benzidine	625		5											
65.	Bis(2-Chloroethoxy)Methane	625		5											
66.	Bis(2-Chloroethyl)Ether	625	10	1											
67.	Bis(2-Chloroisopropyl)Ether	625	10	2											
69.	4-Bromophenyl Phenyl Ether	625	10	5											
71.	2-Chloronaphthalene	625		10											
72.	4-Chlorophenyl Phenyl Ether	625		5											
73.	Chrysene	625		10	5										
78.	3,3'-Dichlorobenzidine	625		5											
82.	2,4-Dinitrotoluene	625	10	5											
83.	2,6-Dinitrotoluene	625		5											
85.	1,2-Diphenylhydrazine (note) <sup>6</sup>	625		1											
88.	Hexachlorobenzene	625	5	1											
89.	Hexachlorobutadiene	625	5	1											
90.	Hexachlorocyclopentadiene	625	5	5											
91.	Hexachloroethane	625	5	1											
93.	Isophorone	625	10	1											
94.	Naphthalene	625	10	1	0.2										
95.	Nitrobenzene	625	10	1											
96.	N-Nitrosodimethylamine	625	10	5											
97.	N-Nitrosodi-n-Propylamine	625	10	5											
98.	N-Nitrosodiphenylamine	625	10	1											
99.	Phenanthrene	625		5	0.05										
101.	1,2,4-Trichlorobenzene	625	1	5											
102.	Aldrin	608	0.005												
103.	α-ВНС	608	0.01												
104.	β-ВНС	608	0.005												
105.	γ-BHC (Lindane)	608	0.02												
106.	δ-ВНС	608	0.005												
107.	Chlordane	608	0.1												
108.	4,4'-DDT	608	0.01												
109.	4,4'-DDE	608	0.05												
110.	4,4'-DDD	608	0.05												
111.	Dieldrin	608	0.01												
112.	Endosulfan (alpha)	608	0.02											1	
113.	Endosulfan (beta)	608	0.01											1	
114.	Endosulfan Sulfate	608	0.05								1				
115.	Endrin	608	0.01								1				
116.	Endrin Aldehyde	608	0.01								1				
117.	Heptachlor	608	0.01								1				
118.	Heptachlor Epoxide	608	0.01								1				
119- 125	PCBs: Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260	608	0.5												
126.	Toxaphene	608	0.5											1	

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<sup>&</sup>lt;sup>6</sup> Measurement for 1,2-Diphenylhydrazine may use azobenzene as a screen: if azobenzene is measured at >1 ug/l, then the Discharger shall analyze for 1,2-Diphenylhydrazine.

#### **ATTACHMENT H**

#### **Pretreatment Program Provisions**

- 1. The Discharger shall implement all pretreatment requirements contained in 40 CFR 403, as amended. The Discharger shall be subject to enforcement actions, penalties, and fines as provided in the Clean Water Act (33 USC 1351 et seq.), as amended. The Discharger shall implement and enforce its Approved Pretreatment Program or modified Pretreatment Program as directed by the Regional Water Board's Executive Officer or USEPA. USEPA and/or the State may initiate enforcement action against an industrial user for noncompliance with applicable standards and requirements as provided in the Clean Water Act.
- 2. The Discharger shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d) and 402(b) of the Clean Water Act. The Discharger shall cause industrial users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.
- 3. The Discharger shall perform the pretreatment functions as required in 40 CFR 403 and amendments or modifications thereto including, but not limited to:
  - i) Implement the necessary legal authorities to fully implement the pretreatment regulations as provided in 40 CFR 403.8(f)(1);
  - ii) Implement the programmatic functions as provided in 40 CFR 403.8(f)(2);
  - Publish an annual list of industrial users in significant noncompliance as provided per 40 CFR 403.8(f)(2)(vii);
  - iv) Provide for the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3); and
  - v) Enforce the national pretreatment standards for prohibited discharges and categorical standards as provided in 40 CFR 403.5 and 403.6, respectively.
- 4. The Discharger shall submit annually a report to USEPA Region 9, the State Water Board and the Regional Water Board describing its pretreatment program activities over the previous twelve months. In the event that the Discharger is not in compliance with any conditions or requirements of the Pretreatment Program, the Discharger shall also include the reasons for noncompliance and a plan and schedule for achieving compliance. The report shall contain, but is not limited to, the information specified in Appendix A entitled, "Requirements for Pretreatment Annual Reports," which is made a part of this Order. The annual report is due on the last day of February each year.
- 5. The Discharger shall submit semiannual pretreatment reports to USEPA Region 9, the State Water Board and the Regional Water Board describing the status of its significant industrial users (SIUs). The report shall contain, but is not limited to, the information specified in Appendix B entitled, "Requirements for Semiannual Pretreatment Reports," which is made part of this Order. The semiannual reports are due July 31<sup>st</sup> (for the period January through June) and January 31<sup>st</sup> (for the period July through December) of each year. The Executive Officer may exempt a Discharger from

the semiannual reporting requirements on a case by case basis subject to State Water Board and USEPA's comment and approval.

- 6. The Discharger may combine the annual pretreatment report with the semiannual pretreatment report (for the July through December reporting period). The combined report shall contain all of the information requested in Appendices A and B and will be due on January 31<sup>st</sup> of each year.
- 7. The Discharger shall conduct the monitoring of its treatment Plant's influent, effluent, and sludge as described in Appendix C entitled, "Requirements for Influent, Effluent and Sludge Monitoring," which is made part of this Order. The results of the sampling and analysis, along with a discussion of any trends, shall be submitted in the semiannual reports. A tabulation of the data shall be included in the annual pretreatment report. The Executive Officer may require more or less frequent monitoring on a case by case basis.

#### **APPENDIX H-A**

## REQUIREMENTS FOR PRETREATMENT ANNUAL REPORTS

The Pretreatment Annual Report is due each year on the last day of February. [If the annual report is combined with the semiannual report (for the July through December period) the submittal deadline is January 31<sup>st</sup> of each year.] The purpose of the Annual Report is 1) to describe the status of the Publicly Owned Treatment Works (POTW) pretreatment program and 2) to report on the effectiveness of the program, as determined by comparing the results of the preceding year's program implementation. The report shall contain at a minimum, but is not limited to, the following information:

#### 1) Cover Sheet

The cover sheet must contain the name(s) and National Pollutant Discharge Elimination Discharge System (NPDES) permit number(s) of those POTWs that are part of the Pretreatment Program. Additionally, the cover sheet must include: the name, address and telephone number of a pretreatment contact person; the period covered in the report; a statement of truthfulness; and the dated signature of a principal executive officer, ranking elected official, or other duly authorized employee who is responsible for overall operation of the POTW (40 CFR 403.12(j)).

#### 2) Introduction

The Introduction shall include any pertinent background information related to the Discharger, the POTW and/or the industrial user base of the area. Also, this section shall include an update on the status of any Pretreatment Compliance Inspection (PCI) tasks, Pretreatment Performance Evaluation tasks, Pretreatment Compliance Audit (PCA) tasks, Cleanup and Abatement Order (CAO) tasks, or other pretreatment-related enforcement actions required by the Regional Water Board or USEPA. A more specific discussion shall be included in the section entitled, "Program Changes."

#### 3) **Definitions**

This section shall contain a list of key terms and their definitions that the Discharger uses to describe or characterize elements of its pretreatment program.

#### 4) Discussion of Upset, Interference and Pass Through

This section shall include a discussion of Upset, Interference or Pass Through incidents, if any, at the POTW(s) that the Discharger knows of or suspects were caused by industrial discharges. Each incident shall be described, at a minimum, consisting of the following information:

- a) a description of what occurred;
- b) a description of what was done to identify the source;
- c) the name and address of the IU responsible
- d) the reason(s) why the incident occurred;
- e) a description of the corrective actions taken; and

f) an examination of the local and federal discharge limits and requirements for the purposes of determining whether any additional limits or changes to existing requirements may be necessary to prevent other Upset, Interference or Pass Through incidents.

## 5) Influent, Effluent and Sludge Monitoring Results

This section shall provide a summary of the analytical results from the "Influent, Effluent and Sludge Monitoring" as specified in Appendix C. The results should be reported in a summary matrix that lists monthly influent and effluent metal results for the reporting year.

A graphical representation of the influent and effluent metal monitoring data for the past five years shall also be provided with a discussion of any trends.

## 6) Inspection and Sampling Program

This section shall contain at a minimum, but is not limited to, the following information:

- a) Inspections: the number of inspections performed for each type of IU; the criteria for determining the frequency of inspections; the inspection format procedures;
- b) Sampling Events: the number of sampling events performed for each type of IU; the criteria for determining the frequency of sampling; the chain of custody procedures.

#### 7) **Enforcement Procedures**

This section shall provide information as to when the approved Enforcement Response Plan (ERP) had been formally adopted or last revised. In addition, the date the finalized ERP was submitted to the Regional Water Board shall also be given.

#### 8) Federal Categories

This section shall contain a list of all of the federal categories that apply to the Discharger. The specific category shall be listed including the subpart and 40 CFR section that applies. The maximum and average limits for the each category shall be provided. This list shall indicate the number of Categorical Industrial Users (CIUs) per category and the CIUs that are being regulated pursuant to the category. The information and data used to determine the limits for those CIUs for which a combined waste stream formula is applied shall also be provided.

#### 9) Local Standards

This section shall include a table presenting the local limits.

#### 10) Updated List of Regulated SIUs

This section shall contain a complete and updated list of the Discharger's Significant Industrial Users (SIUs), including their names, addresses, and a brief description of the individual SIU's type of business. The list shall include all deletions and additions keyed to the list as submitted in the previous annual report. All deletions shall be briefly explained.

#### 11) Compliance Activities

- a) **Inspection and Sampling Summary:** This section shall contain a summary of all the inspections and sampling activities conducted by the Discharger over the past year to gather information and data regarding the SIUs. The summary shall include:
  - (1) the number of inspections and sampling events conducted for each SIU;
  - (2) the quarters in which these activities were conducted; and
  - (3) the compliance status of each SIU, delineated by quarter, and characterized using all applicable descriptions as given below:
    - (a) in consistent compliance;
    - (b) in inconsistent compliance;
    - (c) in significant noncompliance;
    - (d) on a compliance schedule to achieve compliance, (include the date final compliance is required);
    - (e) not in compliance and not on a compliance schedule;
    - (f) compliance status unknown, and why not.
- b) **Enforcement Summary:** This section shall contain a summary of the compliance and enforcement activities during the past year. The summary shall include the names of all the SIUs affected by the following actions:
  - (1) Warning letters or notices of violations regarding SIUs' apparent noncompliance with or violation of any federal pretreatment categorical standards and/or requirements, or local limits and/or requirements. For each notice, indicate whether it was for an infraction of a federal or local standard/limit or requirement.
  - (2) Administrative Orders regarding the SIUs' apparent noncompliance with or violation of any federal pretreatment categorical standards and/or requirements, or local limits and/or requirements. For each notice, indicate whether it was for an infraction of a federal or local standard/limit or requirement.
  - (3) Civil actions regarding the SIUs' apparent noncompliance with or violation of any federal pretreatment categorical standards and/or requirements, or local limits and/or requirements. For each notice, indicate whether it was for an infraction of a federal or local standard/limit or requirement.
  - (4) Criminal actions regarding the SIUs' apparent noncompliance with or violation of any federal pretreatment categorical standards and/or requirements, or local limits and/or requirements. For each notice, indicate whether it was for an infraction of a federal or local standard/limit or requirement.

- (5) Assessment of monetary penalties. Identify the amount of penalty in each case and reason for assessing the penalty.
- (6) Order to restrict/suspend discharge to the POTW.
- (7) Order to disconnect the discharge from entering the POTW.

#### 12) Baseline Monitoring Report Update

This section shall provide a list of CIUs that have been added to the pretreatment program since the last annual report. This list of new CIUs shall summarize the status of the respective Baseline Monitoring Reports (BMR). The BMR must contain all of the information specified in 40 CFR 403.12(b). For each of the new CIUs, the summary shall indicate when the BMR was due; when the CIU was notified by the POTW of this requirement; when the CIU submitted the report; and/or when the report is due.

#### 13) Pretreatment Program Changes

This section shall contain a description of any significant changes in the Pretreatment Program during the past year including, but not limited to: legal authority, local limits, monitoring/inspection program and frequency, enforcement protocol, program's administrative structure, staffing level, resource requirements and funding mechanism. If the manager of the pretreatment program changes, a revised organizational chart shall be included. If any element(s) of the program is in the process of being modified, this intention shall also be indicated.

## 14) Pretreatment Program Budget

This section shall present the budget spent on the Pretreatment Program. The budget, either by the calendar or fiscal year, shall show the amounts spent on personnel, equipment, chemical analyses and any other appropriate categories. A brief discussion of the source(s) of funding shall be provided.

#### 15) Public Participation Summary

This section shall include a copy of the public notice as required in 40 CFR 403.8(f)(2)(vii). If a notice was not published, the reason shall be stated.

#### 16) Sludge Storage and Disposal Practice

This section shall have a description of how the treated sludge is stored and ultimately disposed. The sludge storage area, if one is used, shall be described in detail. Its location, a description of the containment features and the sludge handling procedures shall be included.

#### 17) PCS Data Entry Form

The annual report shall include the PCS Data Entry Form. This form shall summarize the enforcement actions taken against SIUs in the past year. This form shall include the following information: the POTW name, NPDES Permit number, period covered by the report, the number of SIUs in significant noncompliance (SNC) that are on a pretreatment compliance schedule, the number of notices of violation and administrative orders issued against SIUs, the number of civil and

criminal judicial actions against SIUs, the number of SIUs that have been published as a result of being in SNC, and the number of SIUs from which penalties have been collected.

## 18) Other Subjects

Other information related to the Pretreatment Program that does not fit into one of the above categories should be included in this section.

Signed copies of the reports shall be submitted to the Regional Administrator at USEPA, the State Water Board and the Regional Water Board at the following addresses:

Regional Administrator
United States Environmental Protection Agency
Region 9, Mail Code: WTR-7
Clean Water Act Compliance Office
Water Division
75 Hawthorne Street
San Francisco, CA 94105

Pretreatment Program Manager Regulatory Unit State Water Resources Control Board Division of Water Quality 1001 I Street Sacramento, CA 95814

Pretreatment Coordinator NPDES Permits Division SF Bay Regional Water Quality Control Board 1515 Clay Street, Suite 1400 Oakland, CA 94612

#### **APPENDIX H-B**

#### REQUIREMENTS FOR SEMIANNUAL PRETREATMENT REPORTS

The semiannual pretreatment reports are due on July 31<sup>st</sup> (for pretreatment program activities conducted from January through June) and January 31<sup>st</sup> (for pretreatment activities conducted from July through December) of each year, unless an exception has been granted by the Regional Water Board's Executive Officer. The semiannual reports shall contain, at a minimum, but is not limited to, the following information:

### 1) Influent, Effluent and Sludge Monitoring

The influent, effluent and sludge monitoring results shall be included in the report. The analytical laboratory report shall also be included, with the QA/QC data validation provided upon request. A description of the sampling procedures and a discussion of the results shall be given. (Please see Appendix C for specific detailed requirements.) The contributing source(s) of the parameters that exceed NPDES limits shall be investigated and discussed. In addition, a brief discussion of the contributing source(s) of all organic compounds identified shall be provided.

The Discharger has the option to submit all monitoring results via an electronic reporting format approved by the Executive Officer. The procedures for submitting the data will be similar to the electronic submittal of the NPDES self-monitoring reports as outlined in the December 17, 1999 Regional Water Board letter, Official Implementation of Electronic Reporting System (ERS). The Discharger shall contact the Regional Water Board's ERS Project Manager for specific details in submitting the monitoring data.

If the monitoring results are submitted electronically, the analytical laboratory reports (along with the QA/QC data validation) should be kept at the discharger's facility.

## 2) Industrial User Compliance Status

This section shall contain a list of all Significant Industrial Users (SIUs) that were not in consistent compliance with all pretreatment standards/limits or requirements for the reporting period. The compliance status for the previous reporting period shall also be included. Once the SIU has determined to be out of compliance, the SIU shall be included in the report until consistent compliance has been achieved. A brief description detailing the actions that the SIU undertook to come back into compliance shall be provided.

For each SIU on the list, the following information shall be provided:

- a. Indicate if the SIU is subject to Federal categorical standards; if so, specify the category including the subpart that applies.
- b. For SIUs subject to Federal Categorical Standards, indicate if the violation is of a categorical or local standard.
- c. Indicate the compliance status of the SIU for the two quarters of the reporting period.
- d. For violations/noncompliance occurring in the reporting period, provide (1) the date(s) of violation(s); (2) the parameters and corresponding concentrations exceeding the limits

and the discharge limits for these parameters and (3) a brief summary of the noncompliant event(s) and the steps that are being taken to achieve compliance.

## 3) **POTW's Compliance with Pretreatment Program Requirements**

This section shall contain a discussion of the Discharger's compliance status with the Pretreatment Program Requirements as indicated in the latest Pretreatment Compliance Audit (PCA) Report, Pretreatment Compliance Inspection (PCI) Report or Pretreatment Performance Evaluation (PPE) Report. It shall contain a summary of the following information:

- a. Date of latest PCA, PCI or PPE and report.
- b. Date of the Discharger's response.
- c. List of unresolved issues.
- d. Plan and schedule for resolving the remaining issues.

The reports shall be signed by a principal executive officer, ranking elected official, or other duly authorized employee who is responsible for the overall operation of the Publicly Owned Treatment Works (POTW) (40 CFR 403.12(j)). Signed copies of the reports shall be submitted to the Regional Administrator at USEPA, the State Water Resources Control Board and the Regional Water Board at the following addresses:

Regional Administrator
United States Environmental Protection Agency
Region 9, Mail Code: WTR-7
Clean Water Act Compliance Office
Water Division
75 Hawthorne Street
San Francisco, CA 94105

Pretreatment Program Manager Regulatory Unit State Water Resources Control Board Division of Water Quality 1001 I Street Sacramento, CA 95814

Pretreatment Coordinator NPDES Permits Division SF Bay Regional Water Quality Control Board 1515 Clay Street, Suite 1400 Oakland, CA 94612

#### **APPENDIX H-C**

#### REQUIREMENTS FOR INFLUENT, EFFLUENT AND SLUDGE MONITORING

The Discharger shall conduct sampling of its treatment Plant's influent, effluent and sludge at the frequency as shown in Table E-5 of the Monitoring and Reporting Program (MRP).

The monitoring and reporting requirements of the POTW's Pretreatment Program are in addition to those specified in Tables E-3 and E-4 of the MRP. Any subsequent modifications of the requirements specified in Tables E-3 and E-4 shall be adhered to and shall not affect the requirements described in this Appendix unless written notice from the Regional Water Board is received. When sampling periods coincide, one set of test results, reported separately, may be used for those parameters that are required to be monitored by both Tables E-3 and E-4 and the Pretreatment Program. The Pretreatment Program monitoring reports shall be sent to the Pretreatment Program Coordinator.

#### 1. Influent and Effluent Monitoring

The Discharger shall monitor for the parameters using the required test methods listed in Table E-5 of the MRP. Any test method substitutions must have received prior written Regional Water Board approval. Influent and effluent sampling locations shall be the same as those sites specified in the MRP.

The influent and effluent sampled should be taken during the same 24-hour period. All samples must be representative of daily operations. Grab samples shall be used for volatile organic compounds, cyanide and phenol. In addition, any samples for oil and grease, polychlorinated biphenyls, dioxins/furans, and polynuclear aromatic hydrocarbons shall be grab samples. For all other pollutants, 24-hour composite samples must be obtained through flow-proportioned composite sampling. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR 136 and amendments thereto. For effluent monitoring, the reporting limits for the individual parameters shall be at or below the minimum levels (MLs) as stated in the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (2000) [also known as the State Implementation Policy (SIP)]; any revisions to the MLs shall be adhered to. If a parameter does not have a stated minimum level, then the Discharger shall conduct the analysis using the lowest commercially available and reasonably achievable detection levels.

The following standardized report format should be used for submittal of the influent and effluent monitoring report. A similar structured format may be used but will be subject to Regional Water Board approval. The monitoring reports shall be submitted with the Semiannual Reports.

A. Sampling Procedures – This section shall include a brief discussion of the sample locations, collection times, how the sample was collected (i.e., direct collection using vials or bottles, or other types of collection using devices such as automatic samplers, buckets, or beakers), types of containers used, storage procedures and holding times. Include description of prechlorination and chlorination/dechlorination practices during the sampling periods.

- B. Method of Sampling Dechlorination A brief description of the sample dechlorination method prior to analysis shall be provided.
- C. Sample Compositing The manner in which samples are composited shall be described. If the compositing procedure is different from the test method specifications, a reason for the variation shall be provided.
- D. Data Validation All quality assurance/quality control (QA/QC) methods to be used shall be discussed and summarized. These methods include, but are not limited to, spike samples, split samples, blanks and standards. Ways in which the QA/QC data will be used to qualify the analytical test results shall be identified. A certification statement shall be submitted with this discussion stating that the laboratory QA/QC validation data has been reviewed and has met the laboratory acceptance criteria. The QA/QC validation data shall be submitted to the Regional Water Board upon request.
- E. A tabulation of the test results shall be provided.
- F. Discussion of Results The report shall include a complete discussion of the test results. If any pollutants are detected in sufficient concentration to upset, interfere or pass through Plant operations, the type of pollutant(s) and potential source(s) shall be noted, along with a plan of action to control, eliminate, and/or monitor the pollutant(s). Any apparent generation and/or destruction of pollutants attributable to chlorination/dechlorination sampling and analysis practices shall be noted.

## 2. Sludge Monitoring

Sludge should be sampled in the same 24-hour period during which the influent and effluent are sampled except as noted in (C) below. The same parameters required for influent and effluent analysis shall be included in the sludge analysis. The sludge analyzed shall be a composite sample of the sludge for final disposal consisting of:

- A. Sludge lagoons 20 grab samples collected at representative equidistant intervals (grid pattern) and composited as a single grab, or
- B. Dried stockpile -20 grab samples collected at various representative locations and depths and composited as a single grab, or
- C. Dewatered sludge- daily composite of 4 representative grab samples each day for 5 days taken at equal intervals during the daily operating shift taken from a) the dewatering units or b) from each truckload, and shall be combined into a single 5-day composite.

The USEPA manual, <u>POTW Sludge Sampling and Analysis Guidance Document</u>, August 1989, containing detailed sampling protocols specific to sludge is recommended as a guidance for sampling procedures. The USEPA manual <u>Analytical Methods of the National Sewage Sludge Survey</u>, September 1990, containing detailed analytical protocols specific to sludge, is recommended as a guidance for analytical methods.

In determining if the sludge is a hazardous waste, the Dischargers shall adhere to Article 2, "Criteria for Identifying the Characteristics of Hazardous Waste," and Article 3, "Characteristics of

Hazardous Waste," of Title 22, California Code of Regulations, Sections 66261.10 to 66261.24 and all amendments thereto.

Sludge monitoring reports shall be submitted with the appropriate Semiannual Report. The following standardized report format should be used for submittal of the report. A similarly structured form may be used but will be subject to Regional Water Board approval.

- A. Sampling procedures Include sample locations, collection procedures, types of containers used, storage/refrigeration methods, compositing techniques and holding times. Enclose a map of sample locations if sludge lagoons or stockpiled sludge is sampled.
- B. Data Validation All quality assurance/quality control (QA/QC) methods to be used shall be discussed and summarized. These methods include, but are not limited to, spike samples, split samples, blanks and standards. Ways in which the QA/QC data will be used to qualify the analytical test results shall be identified. A certification statement shall be submitted with this discussion stating that the laboratory QA/QC validation data has been reviewed and has met the laboratory acceptance criteria. The QA/QC validation data shall be submitted to the Regional Water Board upon request.
- C. Test Results Tabulate the test results and include the percent solids.
- D. Discussion of Results The report shall include a complete discussion of test results. If the detected pollutant(s) is reasonably deemed to have an adverse effect on sludge disposal, a plan of action to control, eliminate, and/or monitor the pollutant(s) and the known or potential source(s) shall be included. Any apparent generation and/or destruction of pollutants attributable to chlorination/ dechlorination sampling and analysis practices shall be noted.

The Discharger shall also provide any influent, effluent or sludge monitoring data for nonpriority pollutants that the permittee believes may be causing or contributing to Interference, Pass Through or adversely impacting sludge quality.

# ATTACHMENT I – ACTIONS TO MEET THE REQUIREMENTS OF STATE WATER BOARD ORDER NO. WQ 90-5

In response to the State Water Board's Water Quality Control Policy for the Enclosed Bays and Estuaries of California (the Bays and Estuaries Policy, adopted in May 1974), which includes a general prohibition against the discharge of municipal and industrial wastewaters to enclosed bays and estuaries, the Regional Water Board has included the following discharge prohibitions in Table 4-1 of the Basin Plan.

It shall be prohibited to discharge any wastewater which has particular characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimal initial dilution of at least 10:1, or into any non-tidal water, dead-end slough, similar confined waters, or any immediate tributaries thereof.

It shall be prohibited to discharge any wastewater which has particular characteristics of concern to San Francisco Bay south of the Dumbarton Bridge.

Due to locations south of the Dumbarton Bridge and discharges to receiving waters where 10:1 minimum initial dilution is not achieved, these prohibitions essentially preclude discharges of treated wastewater from the wastewater treatment plants of San Jose/Santa Clara, Palo Alto, and Sunnyvale. In 1973, these dischargers formed the South Bay Dischargers Authority to address the possibility of relocating their outfalls to a location north of the Dumbarton Bridge, and gave attention to an exception to the discharge prohibitions allowed by the Basin Plan, and consistent with the *Bays and Estuaries Policy*, when a net environmental benefit is realized as a result of the discharge. Based on results of studies conducted between1981 through 1986 showing net environmental benefit, in 1987, with applications for reissuance of their discharge permits, the three South Bay dischargers petitioned the Regional Water Board for exceptions to the discharge prohibitions.

In the same time period that the South Bay dischargers were addressing the discharge prohibitions, the Regional Water Board was establishing water quality objectives for many toxic pollutants in San Francisco Bay. An amendment of the Basin Plan in 1986 established several such water quality objectives, which corresponded to then current USEPA recommended water quality criteria. Due to the unique hydrodynamic environment of South San Francisco Bay and implications of non-point pollution sources, however, the 1986 Basin Plan amendment exempted South San Francisco Bay from the newly adopted water quality objectives and required development of site-specific water quality objectives.

In reissuing permits to Sunnyvale (Order No. 88-176) and Palo Alto (Order No. 88-175) in 1988, the Regional Water Board found that discharges from these wastewater treatment facilities would provide a net environmental benefit and water quality enhancement. Exceptions to the Basin Plan discharge prohibitions were therefore granted provided that the dischargers conduct several studies, addressing salt marsh conversion, development of site-specific water quality objectives and effluent limitations for metals, ammonia removal, and avian botulism control. The Regional Water Board found that discharges from the San Jose/Santa Clara WPCF did not provide a net environmental benefit and water quality enhancement, and in particular cited the conversion, caused by the discharge, of extensive salt marsh habitat to brackish and freshwater marsh. The Regional Water Board concluded, however, that a finding of "net environmental benefit" could be made if the Discharger provided mitigation for the loss of salt marsh habitat; and if such mitigation was accomplished, then an exception, like that granted to Sunnyvale and Palo Alto, would be appropriate. On January 18, 1989, a Cease and Desist Order (Order No. 89-013), establishing a time schedule for either compliance with the Basin Plan prohibitions or

mitigation for the loss of salt marsh habitat, was adopted concurrently with the reissued discharge permit (Order No. 89-012) for the San Jose/Santa Clara facility.

In addition to addressing the exceptions to the Basin Plan's discharge prohibitions, the three reissued permits established a process to develop site-specific water quality objectives and effluent limitations for metals. Interim limitations, based on objectives in the 1982 Basin Plan, were established and were to be replaced by performance based interim limitations after one year. Ultimately, final effluent limitations would be established based on objectives from the 1986 Basin Plan or based on site-specific studies, which were mandated by the permits.

Responding to objections from environmental groups regarding the resissued permits for the three South Bay dischargers, on October 4, 1990, the State Water Board adopted Order No. WQ 90-5 to address three issues: (a) the conditional exceptions granted to Sunnyvale and Palo Alto and denied to San Jose/Santa Clara regarding the Basin Plan discharge prohibitions, (b) regulation of toxic pollutants, and (c) mitigation for the loss of salt marsh habitat.

As described by Order No. WQ 90-5, the State Water Board concluded that all three South Bay dischargers had failed to demonstrate that exceptions to the Basin Plan discharge prohibitions should be granted on the basis of net environmental benefit. The State Water Board explained that impacts of nutrient loading in South San Francisco Bay remained unresolved, that avian botulism was negatively impacting wildlife and estuarine habitat, and that discharges of metals were contributing or threatening to contribute to impairment of San Francisco Bay. In addition, discharges from the San Jose/Santa Clara facility, specifically, had a substantial adverse impact on rare and endangered species resulting from the loss of salt marsh habitat.

Through Order No. WQ 90-5, the State Water Board did acknowledge that relocation of the discharges to a location north of the Dumbarton Bridge was not an economically or environmentally sound solution to the issues associated with the South Bay discharges; although if the discharges were, in fact, located north of the Dumbarton Bridge, they would need to comply with water quality objectives for toxic pollutants, which were incorporated into the Basin Plan in 1986. The State Water Board "strongly encouraged" the Regional Water Board and the South Bay Dischargers Authority to pursue wastewater reclamation projections as a means to reduce discharges to San Francisco Bay, and it also concluded that exceptions to the Basin Plan discharge prohibitions could be granted on the basis of "equivalent protection" (i.e., protection equivalent to relocating the discharges to a location north of the Dumbarton Bridge), provided that certain conditions were met. In Order No. WQ 90-5, the State Water Board stated that exceptions to the Basin Plan discharge prohibitions could be granted in the South Bay permits, on the basis of "equivalent protection," (a) if the discharge permits include numeric, water quality based limitations for toxic pollutants; (b) if the dischargers continue efforts to control avian botulism; and (c) if the Cities of San Jose and Santa Clara properly protect rare and endangered species by limiting flows discharged to San Francisco Bay to not more than 120 MGD (average dry weather flow) or to flows which would not further adversely impact rare or endangered species, and by providing for the creation or restoration of 380 acres of wetlands.

The following text briefly describes, chronologically, actions taken by the State and Regional Water Boards and the City of Sunnyvale shortly before and after adoption of State Water Board Order No. WQ 90-05. This summary also clarifies the origin of some provisions that appear in this Order.

Regional Water Board Order No. 90-035 (February 21, 1990) amended Order No. 88-176.

- Established interim performance based limits, at the 95 percent confidence level, for As, Cd, Cr+6, Cu, Pb, Hg, Ni, Ag, Zn, CN, phenolic compounds, PAHs, and Se. Interim limits were to remain effective while SSOs were being developed, and site-specific limits had to be in place by December 31, 1991. [Basin Plan had not established WQ objectives for metals in South San Francisco Bay, and the Discharger was obligated to assist in gathering data for development of SSOs and effluent limitations.]
- o Interim mass based limits were established for the same pollutants to maintain ambient conditions in South San Francisco Bay until SSOs and site-specific limits were in place by December 31, 1991. [Interim limits were needed for metals because of the lack of assimilative capacity in San Francisco Bay, although loadings of metals to San Francisco Bay had diminished since 1975.]

Regional Water Board Order No. 90-070 (May 16, 1990) amended Order No. 89-013.

- Required the City of Sunnyvale to implement additional source controls through pretreatment program improvements and implementation of a pilot waste minimization program by August 1, 1991.
- o By December 1, 1990 required submittal of an interim report regarding progress of implementing additional source control measures.

State Water Board Order No. WQ 90-05 was adopted on October 4, 1990.

Regional Water Board Order No. 91-067 (April 17, 1991) amended Order No. 88-176.

- o Amended Order No. 88-176 to comply with the requirements of State Water Board Order No. WQ 90-5, with a finding stating the exception request to the Basin Plan discharge prohibitions does not support a finding of net environmental benefit.
- o An exception to the three prohibitions may be considered where the Discharger can demonstrate environmental protection equivalent to discharges north of Dumbarton Bridge, and demonstrate advanced treatment reliability.
- O Demonstration of equivalent protection included interim concentration limits for toxics based on the water quality objectives of the recently adopted Bays and Estuaries Plan (adopted April 11, 1991, a provision to conduct a Toxicity Reduction Evaluation/Toxicity Identification Evaluation, and a provision to continue its avian botulism control program.
- The permit was amended to state that "water quality objectives for South San Francisco Bay exist, and are appropriate to use when developing water quality based effluent limitations. The Discharger is currently conducting studies which may lead to development of SSOs for copper, lead, mercury, and nickel. Those proposed objectives, and any subsequent changes in effluent limitations, will be considered at the next permit reissuance. Effluent limitations for arsenic, cadmium, chromium, silver, zinc, and selenium that are contained in this Order and will likely not be revised at the next permit reissuance." Order No. 91-067 states that "[o]n April 11, 1991, the State Water Board adopted water quality objectives for the State in its Bays and Estuaries Plan. Those objectives are applicable to San Francisco Bay below Dumbarton Bridge." [Note

- that the State Water Board's Bays and Estuaries Plan, as well as an Inland Surface Waters Plan, which was also adopted in 1991, were rescinded in 1994.]
- Order No. 91-067 established new, interim, concentration based limits for As, Cd, Cr+6, Cu, Pb, Hg, Ni, Ag, Zn, and Se; and new, interim, mass-based limitations for As, Cd, Cr+6, Cu, Pb, Hg, Ni, Ag, Zn, Se, CN, phenols, and PAHs.

<u>Regional Water Board Order No. 93-086</u> (July 21, 1993) reissued NPDES/Waste Discharge Requirements for the City of Sunnyvale.

- Consistent with the requirements of State Water Board Order No. 90-5, this Order contained water quality based effluent limits for toxics, mass loadings limits for metals, and a requirement to continue avian botulism control efforts.
- o Conditional exceptions to the Basin Plan discharge prohibitions were granted by the Order provided that the Discharger complies with the avian botulism control requirements.

Regional Water Board Cease and Desist Order No. 93-084 (July 21, 1993).

o The Cease and Desist Order addressed anticipated violations of effluent limitations established by Order No. 93-086 for copper, and included compliance schedules to come into full compliance with the requirements of Order No. 93-084. The CDO also included source control programs for copper, nickel, silver, and mercury.

<u>Regional Water Board Order No. 98-053</u> (June 17, 1998) reissued NPDES/Waste Discharge Requirements for the City of Sunnyvale.

- Effluent limitations for copper and cyanide were based on (then) current performance of the treatment plant to ensure that ambient conditions in South San Francisco Bay would be maintained. These limitations reflected the 99.7th percentile of plant performance from 1995 through 1997. For all other toxic pollutants with limitations established by the Order, limitations were based on the 1995 Basin Plan or USEPA criteria (nickel, tributyltin, and mercury).
- O Continued exceptions to the Basin Plan discharge prohibitions were granted, as "effluent limitations which are substantially equivalent to the effluent limitations contained in the Discharger's July 21, 1993 NPDES permit," and requirements to continue efforts to control avian botulism are retained, and "the Discharger has implemented a reclamation program."
- The Regional Water Board expected SSOs for copper and nickel to be developed during the anticipated term of Order No. 98-053; and it established requirements in the Order for the Discharger to participate in special studies which were needed by the Regional Water Board to develop SSOs.

Regional Water Board Order No. 00-109 (October 18, 2000) amended provisions of Order Nos. 98-052 (San Jose/Santa Clara), 98-053 (Sunnyvale), and 98-054 (Palo Alto), which required the Discharger to participate in studies to develop SSOs for copper and nickel in South San Francisco Bay.

- o In 1999 and 2000, the Santa Clara Watershed Management Initiative, which included participation by the Cities of San Jose and Santa Clara, produced several reports, including an Impairment Assessment Report and Copper and Nickel Action Plans. The Impairment Assessment Report concluded that impairment of South San Francisco Bay by copper and nickel was unlikely, and it recommended the establishment of SSOs for those metals in specific concentration ranges. Based on this report, the Regional Water Board stated its intention to remove the South Bay as impaired by copper and nickel from the CWA 303 (d) list of impaired waters.
- o The Copper and Nickel Action Plans proposed monitoring to determine if copper and nickel concentrations were increasing in South San Francisco Bay (and thereby investigate anti-degradation concerns), and they proposed triggers for pollution prevention steps if monitoring revealed increases in copper or nickel levels.
- o Order No. 00-109 amended Order Nos. 98-052, 98-053, and 98-054 to include the requirements of the Copper and Nickel Action Plans and to require the participation of the Discharger with the Santa Clara Watershed Management Initiative to assist the Regional Water Board in selecting and adopting SSOs for copper and nickel.

State Water Board Resolution No. 2002-0151 (October 17, 2002) granted State Water Board approval of SSOs for copper and nickel for the South San Francisco Bay, which were subsequently approved by USEPA on January 21, 2003.

Regional Water Board Order No. R2-2003-0079 (August 20, 2003) reissued NPDES/Waste Discharge Requirements for the Cities of San Jose and Santa Clara.

- The Order retained requirements for the Discharger to comply with the Copper and Nickel Action Plans.
- o The Order did not automatically carryover mass-based limitations for metals from the previous permit, as water quality based effluent limitations of the Order were established based on guidance of the California Toxics Rule and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (the CTR and the SIP, which both became effective on May 18, 2000).
- The Order retained requirements for the Discharger to implement an avian botulism control program.
- o Based on its findings regarding the establishment of water quality based effluent limitations, including mass-based limitations, and the retention of requirements for an avian botulism control program, the Regional Water Board, in Order No. R2-2003-0079, continued to grant exceptions to the Basin Plan discharge prohibitions for the City of Sunnyvale.