

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 94-048  
NPDES PERMIT NO. CA0037532

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF MILLBRAE AND  
NORTH BAYSIDE SYSTEM UNIT, MILLBRAE  
SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. The City of Millbrae, hereinafter called the discharger, submitted a permit application dated July 16, 1993 for reissuance of waste discharge requirements and a permit to discharge wastewater to waters of the State and the United States under the National Pollutant Discharge Elimination System (NPDES).
2. This discharge is presently governed by Waste Discharge Requirements in Order No. 89-003, adopted by the Board on January 18, 1989.
3. The North Bayside System Unit (NBSU) is the Joint Powers Authority responsible for operation of certain shared transport, treatment, and disposal facilities (the NBSU combined forcemain-outfall). The NBSU includes the Cities of Millbrae, Burlingame, South San Francisco and San Bruno, San Francisco International Airport, and Marine Magnesium Company. The treatment plant has an average dry weather flow design of 3.0 million gallons per day (mgd). The plant presently discharges an average dry weather flow of 2.0 mgd.
4. Treatment facilities consist of influent grinders, primary clarifiers, aeration tanks, final clarifiers, and chlorination equipments. Solid handling includes grit removal, sludge thickening, anaerobic digestion and sludge dewatering through a belt press. This plant treats domestic and industrial wastewater from the City of Millbrae. The treated wastewater is discharged into the combined NBSU forcemain and outfall with final disposal into lower San

Francisco Bay, a water of the State and United States, northeast of Point San Bruno through a submerged diffuser about 5300 feet offshore at a depth of 20 feet below mean lower low water (Latitude 37 deg., 39 min., 55 sec., Longitude 122 deg., 21 min., 41 sec.).

5. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986. The Board amended its Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region on September 16, 1992, and the State Board approved it on April 27, 1993, with approval from Office of Administration Law pending. The Board amended the Basin Plan on October 21, 1992 to adopt a site-specific water quality objective of 4.9  $\mu\text{g}/\text{l}$  for copper for San Francisco Bay and a deep water marine effluent limit of 37  $\mu\text{g}/\text{l}$  for copper. This amendment has not yet been approved by the State Board. The Basin Plan identifies beneficial uses and water quality objectives for surface waters in the region, as well as effluent limitations and discharge prohibitions intended to protect beneficial uses.
6. The Board amended the Basin plan on June 16, 1993 to adopt a wasteload allocation for copper (Resolution 93-61). The mass loading limit for copper in this permit is from the region-wide wasteload allocation for copper, developed to implement the site-specific concentration limit by requiring reductions in copper mass discharged from riverine, non-point discharges, and municipal and industrial dischargers throughout the San Francisco Bay-Delta Estuary.
7. The Basin Plan contains water quality objectives and beneficial uses for lower San Francisco Bay. The beneficial uses of lower San Francisco Bay are as follows:
  - Industrial Service Supply
  - Navigation
  - Water Contact Recreation
  - Non-contact Water Recreation
  - Wildlife Habitat
  - Preservation of Rare and Endangered Species
  - Fish Migration
  - Fish Spawning
  - Shellfish Harvesting
  - Estuarine Habitat

8. The 1986 Basin Plan initiated the Effluent Toxicity Characterization Program (ETCP) in which dischargers were required to monitor their effluent using critical life stage toxicity tests to generate information on toxicity test species sensitivity and effluent variability to allow development of appropriate chronic toxicity effluent limitations. The California Enclosed Bay and Estuaries Plan established an ambient water quality objective outside discharge mixing zones of no chronic toxicity, expressed as an objective of 1 TUC (chronic toxicity unit). It also required that publicly-owned treatment works with a pretreatment program must have a chronic toxicity effluent limitation.
9. The NBSU detected no chronic toxicity in the final combined effluent from all members of the NBSU during the course of the ETCP.
10. Federal Regulations for stormwater discharges were promulgated by the U.S. Environmental Protection Agency on November 19, 1990. The regulations [40 Code of Federal Regulations (CFR) Parts 122, 123, and 124] require specific categories of industrial activity (industrial storm water) to obtain a NPDES permit and to implement Best Available Technology Economically Available (BAT) and Best Conventional Pollutant Control Technology (BCT) to control pollutants in industrial stormwater discharges.
11. The storm water flows from the wastewater treatment facility process areas are directed to the wastewater treatment plant headworks and treated along with the wastewater discharged to the treatment plant. These stormwater flows constitute all industrial storm water at this facility and consequently this permit regulates all industrial storm water discharges at this facility.
12. The discharger has implemented and is maintaining an USEPA approved pretreatment program in accordance with Federal pretreatment regulations (40 CFR 403) and this Board's Order No. 89-179.
13. An Operations and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual shall be kept updated to reflect significant changes in treatment facility equipment and operation practices.

14. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code [California Environmental Quality Act (CEQA)] pursuant to Section 13389 of the California Water Code.
15. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided an opportunity to submit their written views and recommendations.
16. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED**, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the Discharger shall comply with the following:

**A. DISCHARGE PROHIBITIONS**

1. Discharge at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited.
2. The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited.
3. The average dry weather flow discharge shall not exceed 3.0 mgd. The average dry weather flow shall be determined over three consecutive dry weather months each year.

**B. EFFLUENT LIMITATIONS**

1. The effluent discharged into the combined foremain-outfall shall not exceed the following limits:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Maximum Daily</u>	<u>Instantaneous Maximum</u>
a. BOD <sub>5</sub> (BOD <sub>5</sub> , 20°C)	mg/l	30	45	60	--
b. Total Suspended Solids	mg/l	30	45	60	--
c. Oil & Grease	mg/l	10	--	20	--
d. Total Chlorine Residual (1)	mg/l	--	--	0.00	--

Footnotes: (1) Requirement defined as below the limit of detection in standard test methods. Compliance with this limitation will normally be demonstrated at the NBSU joint dechlorination facility.

2. **pH:** the pH of the discharge shall not exceed 9 nor be less than 6

3. **Total Coliform Bacteria:**

The treated wastewater, at some place in the treatment process prior to discharge, shall meet the following limits of bacteriological quality: The moving median value for the Most Probable Number (MPN) of total coliform bacteria in any five (5) consecutive samples shall not exceed 240 MPN/100 ml; and, any single sample shall not exceed 2,400 MPN/100 ml.

4. **85 Percent Removal, BOD and TSS:**

The arithmetic mean of the biochemical oxygen demand (Five-day, 20°C) and total suspended solids values, by weight, for effluent samples collected in each calendar month shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period.

5. **Effluent Toxicity:**

5.1 **Acute Toxicity:**

The survival of organisms in undiluted effluent shall be an eleven (11) sample median value of not less than 90 percent survival, and an eleven (11) sample 90 percentile value of not less than 70 percent survival. The eleven sample median and 90th percentile effluent limitations are defined as follows:

**11 sample median:** A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if five or more of the past ten or less bioassay tests show less than 90 percent survival.

**90th percentile:** A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit, if one or more of the past ten or less bioassay tests show less than 70 percent survival.

6. Representative samples of the effluent E-001 shall not exceed the following limits:

6.1 Limits for Toxic Pollutants

The effluent shall not exceed the following limits (a)  
(Units for all limits are in ug/l)

Constituent	Monthly Average (b)	Daily Average
Arsenic	---	200
Cadmium	---	30
Chromium (VI) (c)	---	110
Copper	---	17
Lead	---	53
Mercury	0.21	2.1
Nickel (g)	---	65
Selenium (g)	---	50
Silver	---	23
Zinc (g)	---	500

6.2 Limits for Toxic Pollutants

The effluent shall not exceed the following limits (a):  
(Units for all limits are in ug/l)

<u>Constituent</u>	<u>Monthly average (b)</u>	<u>Daily average (b)</u>
1, 2 Dichlorobenzene (d)	180,000	--
1, 3 Dichlorobenzene	26,000	--
1, 4 Dichlorobenzene	640	--
2, .4, 6 Trichlorophenol	10	--
Aldrin	0.00014	--
A-BHC	0.13	--

Benzene	210	--
B-BHC	0.46	--
Chlordane (d)	0.00008	0.043
Chloroform	4800	--
Cyanide (e)		10
DDT (d)	0.006	0.01
Dichloromethane	4.6	--
Dieldrin	0.00014	0.0019
Endosulfan (d)	20	0.087
Endrin (d)	0.8	0.0023
Fluoranthene	42	--
G-BHC (Lindane)	0.019	0.08
Halomethane (d)	100	--
Heptachlor	0.00016	0.0036
Heptachlor Epoxide	0.00007	--
Hexachorobenzene	0.0069	--
PAHs (d)	0.31	150
PCBs (Total) (d)	0.00007	0.3
Pentachlorophenol (g)	28	79
Phenol	300	1000
TCDD Equivalentents (d)	1.4E-07	--
Toluene	3,000,000	--
Toxaphene (g)	0.0067	0.002
Tributyltin	0.05	--

**Footnotes:**

- a. As, Cd, Cr, Zn, Hg are based on plant performance, all other are based on marine water quality objectives, and are intended to be achieved through secondary treatment and, as necessary, pretreatment and source control.
- b. Limits apply to the average concentration of all samples collected during the averaging period (Daily - 24-hour period; Monthly - Calendar month).
- c. The discharger may meet this limit as total chromium.
- d. See California Enclosed Bays and Estuaries Plan, April 1991, Definition of terms.
- e. The discharger may demonstrate compliance with this limitation by measurement of weak acid dissociable cyanide.
- f. All analyses shall be performed using current USEPA Methods, as specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", SW-846, Third Edition. Detection limits, practical quantitative levels, and limits of quantitative will be taken into account in determining compliance with effluent limitations.
- g. Effluent limitation may be met as a 4-day average. If compliance is to be determined based on a 4-day average, then concentrations of four 24-hour composite samples shall be reported, as well as the average of four.



3. The discharge shall not cause a violation of any particular water quality standard for receiving waters adopted by the Board or the State Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

**D. SLUDGE MANAGEMENT PRACTICES**

1. All sludge generated by the discharger must be disposed of in a municipal solid waste landfill, reused by land application, or disposed of in a sludge-only landfill in accordance with 40 CFR Part 503. If the discharger desires to dispose of sludge by a different method, a request for permit modification must be submitted to the USEPA 180 days before start-up of the alternative disposal practice. All the requirements in 40 CFR 503 are enforceable by USEPA whether or not they are stated in an NPDES permit or other permit issued to the discharger.
2. Sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, or result in groundwater contamination.
3. Duty to mitigate: The discharger shall take all reasonable steps to prevent or minimize any sludge use or disposal which has a likelihood of adversely affecting human health or the environment.
4. The discharge of sewage sludge shall not cause waste material to be in a position where it is, or can be carried from the sludge treatment and storage site and deposited in the waters of the State.
5. The sludge treatment and storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage from the materials in the temporary storage site. Adequate protection is defined as protection from at least a 100-year storm and protection from the highest possible tidal stage that may occur.
6. Sludge that is disposed of in a municipal solid waste landfill must meet the requirements of 40 CFR 258. In the annual self-monitoring report, the discharger shall include the amount of sludge disposed of, and the landfill(s) to which it was sent.

7. The Board may amend this permit prior to expiration if changes occur in applicable state and federal sludge regulations.

#### E. PROVISIONS

1. The two dischargers named in this Order shall be responsible for compliance with the requirements and provisions for discharges over which they have control. The City of Millbrae shall comply with requirements relating to the discharge from its treatment plant and NBSU shall comply with requirements relating to the discharge of the combined effluents.
2. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 89-003. Order No. 89-003 is hereby rescinded.
3. This permit may be reopened to amend the effluent limit for copper once the site-specific water quality objective for copper for San Francisco Bay is fully effective.
4. Where concentration limitations in mg/l or  $\mu\text{g/l}$  are contained in this Permit, except for copper, the following Mass Emission Limitations shall also apply:  
  
(Mass Emission Limit in kg/day = (Concentration Limit in mg/l) x (Actual Flow in million gallons per day averaged over the time interval to which the limit applies) x 3.78 (conversion factor)).
5. The discharger shall comply with all sections of this Order immediately upon adoption.
6. Effluent Toxicity

##### Acute Toxicity

- a. Compliance with Effluent Limitation B.5 (Acute Toxicity) of this Order shall be evaluated by measuring survival of test fishes exposed to undiluted effluent for 96 hours in flow-through bioassays. Each fish species represents a single bioassay
- b. Two fish species will be tested concurrently. These shall be the most sensitive species determined from a single screening (all tests must be completed within ten days of initiating the

first test) of three species: three-spine stickleback, rainbow trout and fathead minnow. The three species screening requirement can be met using either flow-through or static renewal bioassays. The Board may consider allowing compliance monitoring with only one (the most sensitive, if known) fish species, if the following condition is met:

- 1) The discharger can document that the acute toxicity limitation, specified above, has not been exceeded during the previous three years, or that acute toxicity has been observed in only one of two fish species.
- c. All bioassays shall be performed according to protocols approved by the USEPA or State Board, or published by the American Society for Testing and Materials (ASTM) or American Public Health Association.
7. The discharger shall submit a technical report acceptable to the Executive Officer summarizing the results of a minimum of six (6) effluent sample analyses for the constituents listed in Section B.6.2 (three in wet season, three in dry season), with the exception of TCDD equivalents [dioxin] for which three (3) analyses shall be sufficient). The report shall include the limit of quantitation (LOQ), method detection limit (MDL) and practical quantification limit (PQL) achieved at the City of Millbrae laboratory and an evaluation of compliance with the effluent limitations for each constituent. For each constituent, the LOQ, MDL, and PQL should be less than the effluent limit, where reasonable and technically feasible. For constituents analyzed by outside laboratory, MDLs and PQLs should be provided to the City of Millbrae by outside laboratories, and included in this technical report. The technical report shall contain recommendations on effluent sampling and analysis, both with respect to type and frequency of analysis. This NPDES permit shall be subsequently modified to include effluent sampling for the subject constituents.
  8. The discharger shall implement and enforce its approved pretreatment program in accordance with Board Order 89-179 and its amendments thereafter. The discharger's responsibilities include, but are not limited to:

- a. Enforcement of National Pretreatment Standards (e.g. prohibited discharges, Categorical Standards, local limits) in accordance with 40 CFR 403.5 and Section 307(b) and (c) of the Clean Water Act.
  - b. Implementation of the pretreatment program in accordance with legal authorities, policies, procedures, and financial provisions described in the General Pretreatment regulations (40 CFR 403) and its approved pretreatment program.
  - c. Submission of annual and quarterly reports to USEPA and the State as described in Board Order 89-179, and its amendments thereafter.
9. The discharger shall review, and update as necessary, its Operations and Maintenance Manual, annually, or within 90 days of completion of any significant facility or process changes. The discharger shall submit to the Board, by April 15 of each year, a letter describing the results of the review process including an estimated time schedule for completion of any revisions determined necessary, and a description or copy of any completed revisions.
  10. Annually, the discharger shall review and update as necessary, its Contingency Plan as required by Board Resolution 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or adequately implement a contingency plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code. Plan revisions, or a letter stating that no changes are needed, shall be submitted to the Board by April 15 of each year.
  11. The discharger shall implement a program to regularly review and evaluate its wastewater collection, treatment and disposal facilities in order to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary, in order to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the discharger's service responsibilities. A Treatment Facilities Evaluation Program report discussing the status of this evaluation program, including any recommended or planned actions, shall be submitted to the Board by April 15 of each year.

12. The discharger shall implement a Storm Water Pollution Prevention Plan (SWPP Plan) in accordance with the "Standard Storm Water Provisions" in the attached Standard Provisions and Reporting Requirements. The SWPP Plan shall be reviewed and updated as appropriate by October 1, every year. Full compliance with the "Standard Storm Water Provisions" shall be an enforceable requirement of this permit.
13. The discharger shall comply with the **Self-Monitoring Program** for this order, as adopted by the Board and as may be amended by the Executive Officer.
14. The discharger shall comply with all applicable items of the attached "**Standard Provisions and Reporting Requirements** " dated August 1993, or any amendments thereafter.
15. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. To assume operation of this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. (Refer to Standard Provisions, referenced above). The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Board and a statement. The statement shall comply with the signatory paragraph described in Standard Provisions and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.
16. The Board may modify, or revoke and reissue, this Order and Permit if present or future investigations demonstrate that the discharge(s) governed by this Order are causing or significantly contributing to adverse impacts on water quality and/or beneficial uses of the receiving waters.
17. This Order expires on April 20, 1999. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days before this expiration date as application for reissuance of waste discharge requirements.

18. This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, EPA, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

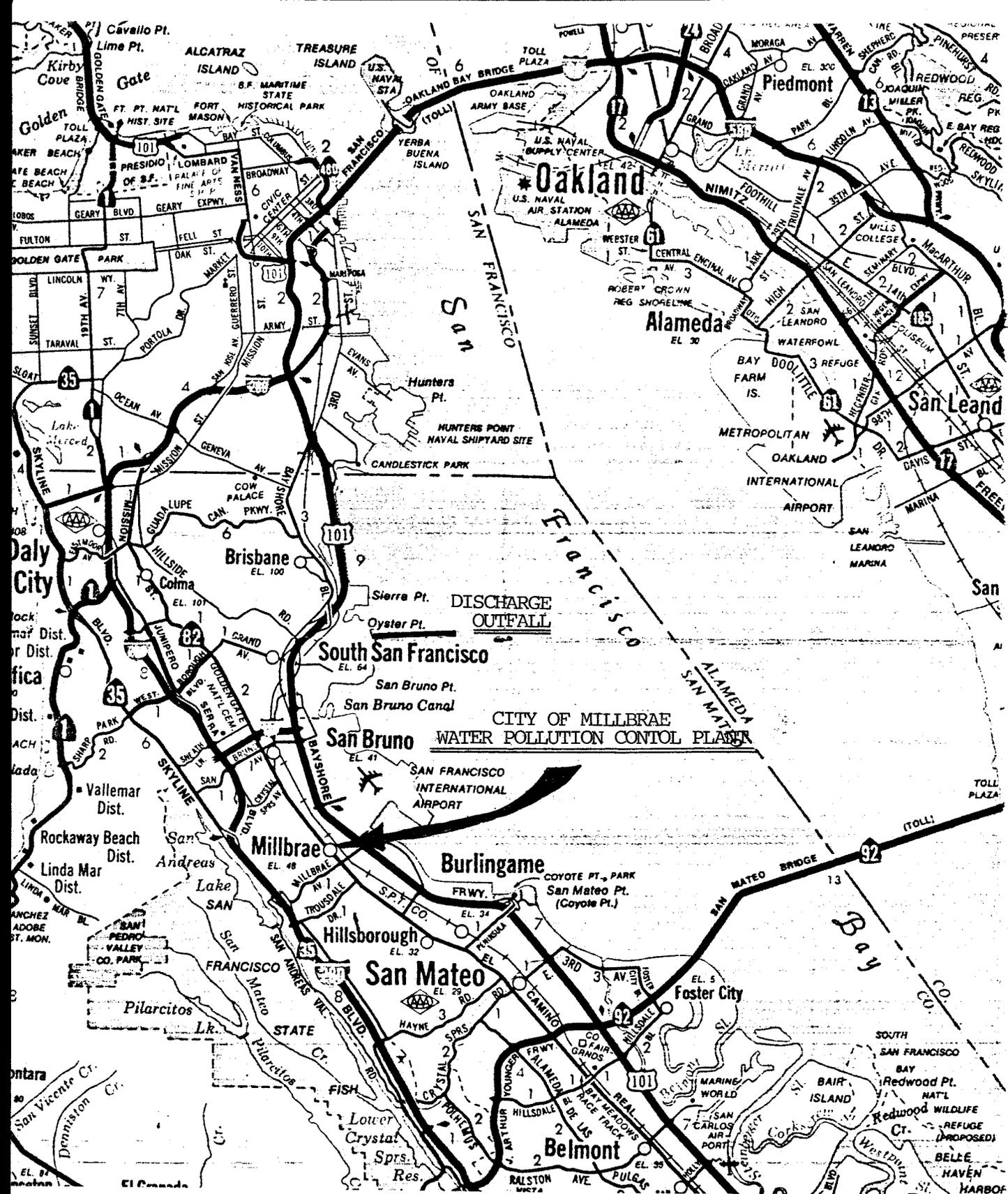
I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 20, 1994.



STEVEN R. RITCHIE  
Executive Officer

Attachments:

- A. Location/Site Maps
- B. Self-Monitoring Program
- C. Standard Provisions and Reporting Requirements - August 1993



LOCATION MAP: CITY OF MILLBRAE  
 WATER POLLUTION CONTROL PLANT  
 MILLBRAE, CA



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM  
FOR

CITY OF MILLBRAE AND  
NORTH BAYSIDE SYSTEM UNIT  
SAN MATEO COUNTY

NPDES NO. CA 0037532

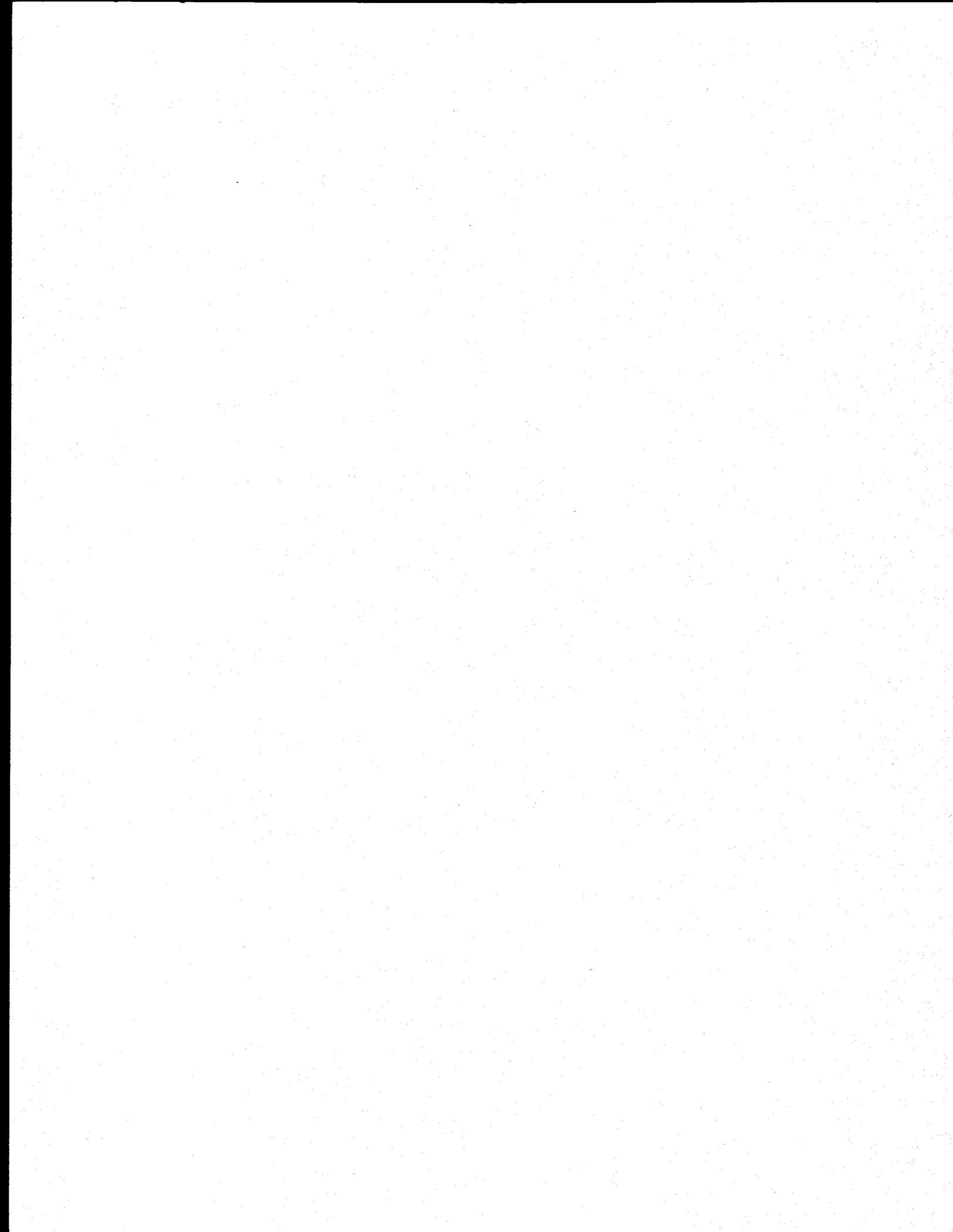
ORDER NO. 94-048

CONSIST OF  
PART A,

dated August 1993

AND

PART B



PART B

CITY OF MILLBRAE AND NBSU

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT AND INTAKE

Station	Description
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present, preceding any phase of treatment, and exclusive of any return flows or process sidestreams.

B. EFFLUENT

Station	Description
E-001	At any point in the plant after disinfection between the point of discharge into the combined forcemain-outfall and the point at which all waste from the treatment plant is present.
E-002	At any point in the combined outfall after deschlorination between the point of discharge into San Francisco Bay and the point at which all waste tributary to that combined outfall is present.

C. RECEIVING WATERS

Station	Description
C-1	At a point in San Francisco Bay located over the geometric center of the outfall's discharge ports.
C-2	At a point in San Francisco Bay located miday between C-1 and C-3.
C-3	At a point in San Francisco Bay located in the center of the waste plume.
C-50-SW	At a point in San Francisco Bay, located 50 feet southwesterly, along the outfall line shoreward from Station C-1.
C-50-NW	At a point in San Francisco Bay, located 50 feet northwesterly from Station C-1, normal to the outfall line.

- C-50-NE            At a point in San Francisco Bay, located 50 feet northeasterly from Station C-1, along the outfall line extended.
- C-50-SE            At a point in San Francisco Bay, located 50 feet southeasterly from Station C-1, normal to the outfall.
- C-300-N            At a point in San Francisco Bay located on 300 foot radius from the geometric center of the outfall diffuser, at equidistant intervals, with Station C-300-SW located shoreward from Station C-1 at the outfall line.
- C-R-NW            At a point in San Francisco Bay located approximately 1500 feet northerly from the point of discharge.
- C-R-SE            At a point in San Francisco Bay located approximately 1500 feet southeasterly from the point of discharge.

D.    LAND OBSERVATIONS

Station	Description
P-1 through	Located along the periphery of the waste treatment or disposal facilities, at equidistant intervals, not to exceed 100 feet. (A sketch showing the locations of these stations will accompany each report.)

E.    OVERFLOWS AND BYPASSES

Station	Description
OV-1 thru	Bypass or overflows from manholes, pump stations, or collection systems.

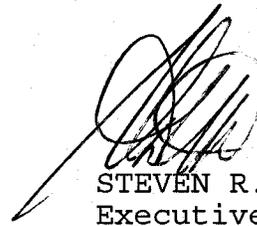
REPORTING - Shall be submitted monthly and include date, time, quantity, and period of each overflow or bypass and measures taken or planned to prevent future occurrences (see Part A, Section G.2)

II.    SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

- A.    The schedule of sampling and analysis shall be that given as Table I.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in the Regional Board's Resolution No.73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 94-048.
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Discharger and revisions will be ordered by the Executive Officer.



STEVEN R. RITCHIE  
Executive Officer

Effective Date: April 20, 1994

Attachments:  
Table I and Legend for Table I

Order No.

TABLE 1

## SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS(I)

Sampling Station	A-001		E-001		E-002		All C Sta.	All P Sta.
	C-24	G(3)	C-24(3)	Cont.	G	C-24		
Type of Sample								
Flow Rate (mgd)				Cont.				Cont.
BOD, 5-day, 20 C, or COD (mg/L & kg/day)	3/W							
Chlorine Residual & Dosage (mg/L & kg/day)		2H or Cont.	(6)		2H or Cont.	(6)		
Total Suspended Matter (mg/L & kg/day)	3/W		D				5/W	
Oil and Grease (mg/L & kg/day)	1/M(2)	1/M(2)			2M(2)			
Coliform (Total or Fecal) (MPN/100ml) per req't		2/W			5/W			
Fish Toxicity 96-hr. Flow-thru (%survival in undilute waste)							M(4)	
Ammonia-N & Un-ionized NH -H (mg/L & kg/day)		M(8)					M(7)	
Nitrate Nitrogen (mg/L & kg/day)							M(7)	
Nitrite Nitrogen (mg/L & kg/day)							M(7)	
Turbidity, (NTU)			D				M	
pH (units)		D(8)			D			
Dissolved Oxygen (mg/L and % Saturation)		D(8)			D			
Temperature (C)		D(8)			D			
Apparent Color								
Arsenic (mg/L & kg/day)						M(5)		

Order No.

TABLE 1 (continued)  
 SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS(1)

Sampling Station	A-001		E-001		E-002		All C Sta.	All P Sta.
	Type of Sample	G(3)	C-24(3)	Cont.	G	C-24		
Cadmium (mg/L & kg/day)			M(5)					
Chromium, Total (mg/L & kg/day)			M(5)					
Copper (mg/L & kg/day)			M(5)					
Cyanide (mg/L & kg/day)			M(5)					
Silver (mg/L & kg/day)			M(5)					
Lead (mg/L & kg/day)			M(5)					
Mercury (mg/L & kg/day)			M(5)					
Nickel (mg/L & kg/day)			M(5)					
Zinc (mg/L & kg/day)			M(5)					
Selenium (mg/L & kg/day)			M(5)					
Phenolic Compounds (mg/L & kg/day)			M(5)					
All Applicable Standard Observations		D				D		
Organic Priority Pollutant [Section C 6.2 of Permit] (mg/L & kg/day)			2/Y					

LEGEND FOR TABLE

TYPES OF SAMPLES

- G = grab sample
- C-24 = composite sample - 24-hour
- Cont. = Continuous sampling
- O = Observation

TYPES OF STATIONS

- A = treatment facility influent station
- E = waste effluent stations
- C = receiving water stations
- P = treatment facilities perimeter stations

FREQUENCY OF SAMPLE

- E = each occurrence
- H = once each hour
- D = once each day
- W = once each week
- Y = once each year
- 2/H = twice per hour
- 2/W = 2 days per week
- 5/W = 5 days per week
- 2/M = 2 days per month
- 2/Y = once in March and once in September

- 2H = every 2 hours
- 2D = every 2 days
- 2W = every 2 weeks
- 3M = every 3 months
- Cont. = continuous

## FOOTNOTES

- 1/ During any day when bypassing occurs from any treatment unit(s) in the plant or to the emergency outfall, the monitoring program for the effluent and any nearshore discharge shall include the following in addition to the above schedule for sampling, measurement and analyses:
  1. Composite sample for BOD and Total Suspended Solids (Influent and Effluent, for the duration of the bypass or 24 hours, whichever is shorter.)
  2. Grab samples for Total Coliform, Settleable Matter, Oil and Grease, and chlorine residual (continuous or every two hours).
  3. Continuous monitoring of flow.
- 2/ Oil and Grease sampling shall consist of 3 grab samples taken at 8-hour intervals during the sampling day with each grab being collected in glass container and analyzed separately. Results for stations A-001 and E-001 shall be expressed as a weighted average of the 3 values, based upon the instantaneous flow rates occurring at the time of each grab sample. Results for station E-002 shall be expressed as a simple average of the three values. If the plant is not staffed 24 hours per day or if the discharge does not occur continuously, then the three grab samples may be taken at approximately equal intervals during the period that the plant is staffed or during the period that discharge is made.

The 3 grab samples may be combined and analyzed as a composite sample after submittal of data acceptable to the Executive Officer that the two techniques are equivalent. In the event that sampling for oil and grease once every two weeks or less frequently shows an apparent violation of the waste discharge permit 30-day average limitation (considering the results of one or two day's sampling as a 30-days average), then the sampling frequency shall be increased to weekly so that a true 30-day average can be computed and compliance can be determined.
- 3/ Grab samples shall be taken on day(s) of composite sampling.
- 4/ Sample date for bioassay and for one of all other specified parameters at E-002 shall coincide with date and times of Calgon Corp. E-001 composite sample.

- 5/ If any sample is in violation of limits, sampling shall be increased for that parameter to weekly until compliance is demonstrated in two successive samples.
- 6/ Data shall be reported using forms provided or approved equivalent. Chlorine residual analyzers shall be calibrated against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, grab samples shall be taken every 30 minutes until compliance is achieved.
- 7/ These parameters shall be tested for on the same composite sample used for the bioassay.
- 8/ These parameters shall also be tested for on the same sample(s) used for the bioassay(s) prior to starting the flow-through bioassay(s) and at intervals of 24, 48, 72, and 96 hours after starting the flow-through bioassay(s).