

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 82-26

NPDES NO. CA0038091

WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF BENICIA
SOLANO COUNTY

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

1. The City of Benicia, hereinafter called the discharger, by application dated February 25, 1982, has applied for renewal of waste discharge requirements and a permit to discharge wastes under the National Pollutant Discharge Elimination System.
2. The discharger presently discharges an annual average of 1.7 million gallons per day (mgd) of domestic and industrial wastewater containing pollutants via deepwater outfall into Carquinez Straits, a water of the United States (Latitude 38 deg., 02 min., 30 sec.; Longitude 122 deg., 09 min., 03 sec.). The newly constructed treatment facilities provide full secondary treatment and have a design capacity of 3.0 mgd.
3. The discharge is presently governed by Waste Discharge Requirements Order Nos. 77-42, 78-7, and 79-50 which allow discharge to Carquinez Straits.
4. The Board, in April 1975 adopted a Water Quality Control Plan for the San Francisco Bay Basin. The Plan contains water quality objectives for San Francisco Bay.
5. The beneficial uses of Carquinez Straits and San Francisco Bay are:
 - a. Recreation
 - b. Fish migration and habitat
 - c. Habitat and resting for waterfowl and migratory birds
 - d. Industrial water supply
 - e. Esthetic enjoyment
 - f. Navigation
6. This project is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

7. 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 with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.
8. 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 provision of the Federal Water Pollution Control Act, as amended, and regulations and guidelines adopted thereunder, that the discharger shall comply with the following:

A. Prohibitions

1. Discharge at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited:
2. There shall be no bypass or overflow of untreated wastewater to waters of the State either at the treatment plant or from the collection system.
3. The average dry weather flow shall not exceed 3.0 mgd. Average shall be determined over three consecutive months each year.

B. Effluent Limitations

1. The discharge of an effluent containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-day Average</u>	<u>7-day Average</u>	<u>Maximum Daily</u>	<u>Instan- taneous Maximum</u>
a. Settleable Matter	ml/l-hr	0.1			0.2
b. BOD	mg/l	30	45	60	
c. Suspended Solids	mg/l	30	45	60	
d. Grease & Oil	mg/l	10	-	20	
e. Chlorine Residual	mg/l	-	-	-	0.0

2. The arithmetic mean of the biochemical oxygen demand (5-day, 20°C) and suspended solids values, by weight, for effluent samples collected in a period of 30 consecutive calendar days 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 (85 percent removal).
3. The pH of the discharge shall not exceed 9.0 or be less than 6.0.
4. In any representative set of samples the waste as discharged shall meet the following limit on toxicity:

The survival of a test organism acceptable to this Regional Board in 96-hour bioassays of the effluent as discharged shall achieve a 90 percentile value of not less than 50% survival for 10 consecutive samples.

5. Representative samples of the effluent shall not exceed the following limits more than the percentage of time indicated:

<u>Constituent</u>	<u>Unit of Measurement</u>	<u>50% of time</u>	<u>10% of time</u>
Arsenic	mg/l (kg/day)	0.01 (0.113)	0.02(0.227)
Cadmium	mg/l (kg/day)	0.02 (0.227)	0.03(0.341)
Total Chromium	mg/l (kg/day)	0.005(0.057)	0.01(0.113)
Copper	mg/l (kg/day)	0.2 (2.27)	0.3 (3.41)
Lead	mg/l (kg/day)	0.1 (1.145)	0.2 (2.27)
Mercury	mg/l (kg/day)	0.001(0.011)	0.002(0.023)
Nickel	mg/l (kg/day)	0.1 (1.135)	0.2 (2.27)
Silver	mg/l (kg/day)	0.02(0.227)	0.04(0.454)
Zinc	mg/l (kg/day)	0.3 (3.41)	0.5 (5.67)
Cyanide	mg/l (kg/day)	0.1 (1.14)	0.2(2.269)
Phenolic Compounds			1.0 (11.4)
Total Identifiable Chlorinated Hydrocarbons	mg/l (kg/day)(a)	0.002(0.023)	0.004(0.045)

(a) Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

6. Total coliform bacteria for a median of 5 consecutive samples shall not exceed 240 MPN/100 ml. Any single sample shall not exceed 10,000 MPN/100 ml when verified by a repeat sample taken within 48 hours.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
 - a. Dissolved oxygen 7.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentrations than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. Dissolved Sulfide 0.1 mg/l maximum.
 - c. pH Variation from natural ambient pH by more than 0.2 pH units.
 - d. Un-ionized Ammonia 0.025 mg/l annual median
as N 0.4 mg/l maximum

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

D. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Order Nos. 77-42, 78-7 and 79-50 adopted on May 17, 1977, February 21, 1978, and May 15, 1979, respectively. Order Nos. 77-42, 78-7 and 79-50 are hereby rescinded.
2. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

$$\text{Mass Emission Limit in lbs/day} = \text{Concentration limit in mg/l} \times 8.34 \times \text{Actual Flow Averaged Over the Time Interval to which the Limit Applies.}$$
3. The discharger shall comply with all prohibitions, effluent and receiving water limitations, and provisions of this Order immediately upon adoption.
4. The discharger shall review and update annually its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.
5. The discharger is required to effectively implement a pretreatment program under the authority of Section 307(b) and 402(b) (8) of the Clean Water Act. As part of this responsibility, the discharger shall ensure compliance with pretreatment standards promulgated under Section 307(b) and (c) of the Clean Water Act:
 - (a) Compliance by existing industrial sources with pretreatment standards shall be within 3 years of the date of promulgation of the standard unless a shorter compliance time is specified.
 - (b) Compliance by new sources of industry with promulgated pretreatment standards shall be required upon commencement of discharge.
6. The discharger shall comply with the self-monitoring program as ordered by the Executive Officer.
7. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977, except B.3.

8. This Order expires April 21, 1987. 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 in advance of such expiration date as application for issuance of new waste discharge requirements.

This order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Fred H. Dierker, Executive Officer, do hereby certify 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 21, 1982.

FRED H. DIERKER
Executive Officer

Attachments:

1. Standard Provisions, Reporting Requirements & Definitions 4/77
2. Resolution No. 74-10
3. Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

City of Benicia

Solano County

NPDES NO. CA 0038091

ORDER NO. 82-26

CONSISTS OF

PART A

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT AND INTAKE

<u>Station</u>	<u>Description</u>
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D).
E-001-D	At any point in the outfall for Waste E-001 at which point adequate contact with the disinfectant is assured and the waste has been dechlorinated.

C. RECEIVING WATERS

<u>Station</u>	<u>Description</u>
C-1	At a point in Carquinez Strait, located in the center of the waste plume of waste discharge.
C-2	At a point in Carquinez Strait located within 150 feet easterly from the point of discharge.
C-3	At a point in Carquinez Strait located within 150 feet southerly from the point of discharge.
C-4	At a point in Carquinez Strait located within 150 feet westerly from the point of discharge.
C-R	At a point in Carquinez Strait, located about 1000 feet southerly from the point of discharge.

D. OVERFLOWS AND BYPASSES

<u>Station</u>	<u>Description</u>
OV-1 thru OV-'n'	Bypass or overflows from manholes, pump stations or collection system.

Note: Initial SMP report to include map and description of each known bypass or overflow location.

Reporting - Shall be submitted monthly and include date, time, and period of each overflow or bypass.

II. SCHEDULE OF SAMPLING AND ANALYSIS

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

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this 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. 82-26.
2. Does not include the following paragraph of Part A:
C.3, C.4.
3. Is effective on the date shown below.
4. 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.

FRED H. DIERKER
Executive Officer

Attachment:
Table I

Effective Date 4/28/82

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

Sampling Station	A-001			E-001		E-001-D			All C		OV		
	Cont	G	C-24	G	C-24	G	C-24	Cont	G	O	O		
Mercury (mg/l & kg/day)					3M								
Nickel (mg/l & kg/day)					3M								
Zinc (mg/l & kg/day)					3M								
PHENOLIC COMPOUNDS (mg/l & kg/day)					3M								
All Applicable Standard Observations				D						M	E		
Bottom Sediment Analyses and Observations													
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)					3M								
Non-dissociated Ammonium hydroxide as N (mg/l)									M				
Total Dissolved Solids (mg/l)									M				

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
 C-24 = composite sample - 24-hour

Cont = continuous sampling

O = observation

FREQUENCY OF SAMPLING

E = each occurrence
 D = once each day
 M = once each month

TYPES OF STATIONS

A = treatment facility influent stations
 E = waste effluent stations
 C = receiving water stations

3/D = 3 times per day
 2/W = 2 days per week
 3/W = 3 days per week
 3M = every 3 month
 Cont = continuous

FOOTNOTES FOR TABLE I

- (1) Oil and grease sampling shall consist of 3 grab samples taken at equal intervals during the sampling day, with each grab being collected in a glass container. The grab samples shall be mixed in proportion to the instantaneous flow rates occurring at the time of each grab sample, within an accuracy of plus or minus 5%. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent rinsings as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.

- (2) May be collected upstream from dechlorination point.