

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 82-31

NPDES NO. CA0038041

WASTE DISCHARGE REQUIREMENTS FOR:

SAN RAFAEL SANITATION DISTRICT  
MAIN PLANT  
MARIN COUNTY

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

1. San Rafael Sanitation District (hereinafter the discharger) by application dated March 18, 1982 has applied for waste discharge requirements and a reissuance of a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES) for its Main Sewage Treatment Plant. The discharger provides treatment and disposal for wastewater collected by the City of San Rafael.
2. The discharger presently discharges domestic and industrial wastes from its sewage treatment plant into San Rafael Bay, a water of the United States, at 122° 29' 20" latitude and 37° 57' 28" longitude. The discharger is currently participating in the construction of new treatment, collection, and outfall facilities under the Central Marin Sewerage Service Agency, and will be terminating the present discharge when these facilities are constructed. The requirements for the new discharge are contained in a separate NPDES permit.
3. The Report of Waste Discharge describes the existing discharge as follows:  
  
Average Dry Weather flow: 3.53 million gallons per day (mgd)  
Design flow: 5.0 million gallons per day (mgd)
4. A Water Quality Control Plan for the San Francisco Bay Basin was adopted by the Board in April 1975. The Basin Plan contains water quality objectives for San Rafael Bay and San Francisco Bay.
5. The beneficial uses of the San Rafael Bay and San Francisco Bay are:
  - a. Recreation
  - b. Fish migration and habitat
  - c. Habitat and resting for waterfowl and migratory birds
  - d. Industrial supply
  - e. Esthetic enjoyment
  - f. Navigation
  - g. Shellfish propagation and harvesting for nonhuman consumption

6. The Basin Plan prohibits the discharge of wastewater which has particular characteristics of concern to beneficial uses to any point at which the wastewater does not receive a minimum initial dilution of at least 10:1 (receiving water to wastewater flow). The Basin Plan further prohibits discharge to shallow, confined water bodies such as San Rafael Bay.
7. The discharge is presently governed by Waste Discharge Requirements contained in Order No. 77-63 which allows an interim discharge to San Rafael Bay. This Order, an NPDES Permit, expired on June 15, 1982.
8. As this project is adoption of waste discharge requirements for an existing discharge, this Board pursuant to Water Code Section 13389, is not required to comply with the provisions of Chapter 3 of Division 13 of the Public Resources Code (California Environmental Quality Act).
9. Novato Sanitary District, as lead agency for the Eastern Marin and Southern Sonoma Wastewater Agencies which include the discharger, requested an NPDES Permit time extension for construction of required facilities. This request was pursuant to Section 301(i)(1) of the Federal Water Pollution Control Act (PWPCA), as amended. The Board finds the request warranted and grants the time extension for compliance with Section 301(b) pursuant to Section 301(i) of the Act.
10. The discharger and interested agencies and persons have been notified of the Board's intent to revise 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.
11. 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 of wastewater through the present outfall to San Rafael Bay 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 5.0 mgd. Average shall be determined over three consecutive months per year.

B. Effluent Limitations

Prior to compliance with Prohibitions A.1 and A.2, Receiving Water Limitations C.1 and C.2 and prior to achievement of full secondary treatment as required by the Federal Water Pollution Control Act, and as defined by regulations of the Environmental Protection Agency, the following interim effluent limitations apply:

1. Representative samples of the effluent shall not exceed the following:

<u>Constituent</u>	<u>Units</u>	<u>30 day Average</u>	<u>7 day Average</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
a. Biochemical Oxygen Demand (BOD)	mg/l	45	60	90	
b. Suspended Solids	mg/l	45	60	90	
c. Oil and Grease	mg/l	15	-	30	
d. Settleable Matter	ml/l-hr	-	-	1.0	
e. Chlorine Residual	mg/l	-	-	-	0.0
f. pH	not less than 6.5 nor greater than 8.5				
g. Coliforms Organisms	240 MPN/100 ml, moving median of any five (5) consecutive daily samples maximum.				

Any single sample shall not exceed a most probable number (MPN) of 10,000 total coliform bacteria per 100 ml when verified by a repeat sample taken within 48 hours.

2. Representative samples of the effluent shall not exceed the following limits more than the percentage of time indicated:(1)

<u>Constituent</u>	<u>Unit of Measurement</u>	<u>50% of time</u>	<u>10% of time</u>
a. Arsenic	mg/l	0.01	0.02
b. Cadmium	mg/l	0.02	0.03
c. Total Chromium	mg/l	0.005	0.01
d. Copper	mg/l	0.2	0.3
e. Lead	mg/l	0.1	0.2
f. Mercury	mg/l	0.001	0.002
g. Nickel	mg/l	0.1	0.2
h. Silver	mg/l	0.02	0.04
i. Zinc	mg/l	0.3	0.5
j. Cyanide	mg/l	0.1	0.2
k. Phenolic Compounds	mg/l	0.5	1.0
l. Total Identifiable Chlorinated Hydrocarbons(2)	mg/l	0.002	0.004

(1)These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.

(2) 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.

3. The arithmetic mean of the biochemical oxygen demand and suspended solids values, by weight, for effluent samples of wastewater discharged through the outfall that are 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 time during the same period (85% removal).

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the United States 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 concentration.
  
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the United States in any place within one foot of the water surface:
  - a. Dissolved oxygen      5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) 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
  - e. Nutrients      50 µg/l chlorophyll a maximum. When background levels exceed this requirement, then this discharge shall not add further nutrients.
  
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. Land Disposal Requirements

1. The discharge of sludge shall not cause waste material to be in any position where it is, or can be, carried from the Land Disposal Site at the plant and deposited in waters of the State.
2. The Land Disposal 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 disposal site. Adequate protection is defined as protection from at least a 100 year storm, and from the highest tidal stage that may occur.
3. The disposal of Group 1 materials as defined in the California Administrative Code, Article 3, Section 2520, in the Land Disposal Site is prohibited.

E. Provisions

1. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:  
  
$$\text{Mass Emission Limit in lbs/day} = \text{Concentration limit in mg/l} \times 8.34 \times \text{Actual Flow in mgd Averaged over the Time Interval to which the Limit Applies.}$$
2. The requirements prescribed by this Order supersede the requirements contained in Order No. 77-63. Order No. 77-63 is hereby rescinded.
3. 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.
4. The Discharger shall comply with the self-monitoring program as ordered by the Executive Officer.
5. The Discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977.
6. This Order expires June 16, 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.

7. 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 ten (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 June 16, 1982.

FRED H. DIERKER  
Executive Officer

Attachment:

Standard Provisions, Reporting  
Requirements & Definitions (April 1, 1977)