

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

RESOLUTION NO. 70-105

AMENDING EXISTING AND PRESCRIBING NEW REQUIREMENTS FOR WASTE
DISCHARGE BY THE UNITED STATES DEPARTMENT OF DEFENSE, MARE
ISLAND NAVAL SHIPYARD INTO SAN PABLO BAY, MARE ISLAND STRAIT
AND CARQUINEZ STRAIT NEAR VALLEJO, SOLANO COUNTY AND
RESCINDING RESOLUTION NO. 162

WHEREAS THIS REGIONAL BOARD HAS CONSIDERED

INFORMATION ABOUT THIS DISCHARGE

1. This Regional Water Quality Control Board prescribed requirements for the United States Department of Defense, Mare Island Naval Shipyard, called the discharger below, in Resolution No. 162 adopted October 21, 1954.
2. The United States Department of Defense, Mare Island Naval Shipyard filed a Report on Waste Discharge dated March 24, 1970 with the Regional Water Quality Control Board pursuant to Sections 13260 and 13264 of the California Water Code.
3. The report and other data submitted by the discharger provide the following information about the characteristics of the wastes and waste treatment:
 - a. Waste A is from the waste treatment plant and contains sewage and 21,000 gpd industrial waste. Sewage results from the resident population of 10,000 people and a nonresident population of 15,000 people. Total dry-weather flow amounts to 1.6 mgd and the treatment plant has a design capacity of 5.0 mgd. During wet weather the flow may increase to 11 mgd. The waste is discharged through a 30-inch outfall one foot above mean lower low water level and at mean lower low tide it flows 600 feet across mud flats before reaching San Pablo Bay.
 - b. Waste B is industrial waste, 110,700 gpd during dry weather and more during wet weather, is discharged untreated through storm drains to Mare Island Strait at nine different locations and originates from the following sources:

<u>Source Operation</u>	<u>Estimated Average Flow-GPD</u>	
	<u>Wet Weather (a)</u>	<u>Dry Weather</u>
Metal cleaning, Iridite plating, etc.	300	300
Parts cleaning and Parkerizing	7,800	7,800
Parts cleaning, painting, lens grinding	12,000	12,000
Aluminum cleaning	800	0
Blueprint and photo reproduction, photoengraving, pipe cleaning, electroplating	102,900	84,000
Pipe cleaning	1,000	0
Paint cleaning and vent filter cleaning	300	0
Miscellaneous Oil Wastes - Oil reclamation facilities	1,700	1,700
Battery repair and electrolyte mixing	<u>5,100</u>	<u>4,900</u>
Total GPD	131,900	110,700

(a) Assumes 100% diversion of industrial wastes to Mare Island Strait during storms, which is not correct.

- c. Waste C is the untreated waste which is bypassed from the combined sewer system through eighteen discharge points to Mare Island Strait during wet weather. Some of the points of discharge are common for waste B, but the number is unknown.
- d. Waste D is waste from a septic tank discharging at the shoreline of Carquinez Strait near Building A-193 north of Pier No. 35.
- e. Waste E is waste from four septic tanks serving buildings in areas remote from the sewer system. They are located near Buildings Nos. A-210, A-174, A-149 and southwest of A-169. Effluent is disposed through tile drainage fields and percolation into the soil.
- f. A proposed sewerage system would collect all of Waste B in a separate collection system, treat it in an industrial waste treatment plant and discharge it with waste A through the existing outfall now being utilized to discharge waste A to the Bay.
- g. A proposed sewerage system would separate the sanitary and storm sewers.

4. This Regional Board has stated intent to revise requirements for existing waste discharges to conform with the Bay Water Quality Control Plan.
5. The plan recommended by the Final Bay-Delta Report proposes consolidation of the waste from Mare Island Naval Shipyards with a system serving the Napa River Drainage with disposal through a deep water outfall to Carquinez Strait.

ADMINISTRATIVE INFORMATION

1. Any discharger under the jurisdiction of the Regional Board is required by Section 13260 of the California Water Code to file with the Regional Board a report of any material change or proposed change in the character, location or volume of the discharge.
2. The Regional Board is authorized by Section 13267 of the California Water Code to require any discharger under its jurisdiction to furnish such technical or monitoring program reports as the Board may specify.
3. Section 11 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 466 et seq.) declares it to be the intent of the Congress that any Federal department having jurisdiction over any installation shall, insofar as practicable and consistent with the interests of the United States and within any available appropriations, cooperate with any State agency having jurisdiction over waters into which any matter is discharged from such property, in preventing or controlling the pollution of such waters.
4. The Presidential Executive Order No. 11507 states that:

"It is the intent of this order that the Federal Government in the design, operation, and maintenance of its facilities shall provide leadership in the nationwide effort to protect and enhance the quality of our air and water resources.

... ..

The use of municipal or regional waste collection or disposal systems shall be the preferred method of disposal of wastes from Federal facilities."

CORRESPONDENCE

This Regional Board has considered recommendations about this matter from:

1. State Department of Fish and Game in its memorandum dated December 15, 1970
2. State Department of Public Health in its memorandum dated December 9, 1970
3. State Department of Water Resources in its memorandum dated December 22, 1970

STAFF INVESTIGATION

These wastes can affect the following present and proposed beneficial water uses in San Pablo Bay, Mare Island Strait, Carquinez Strait and contiguous water bodies:

Industrial cooling and process water supply

Swimming, water-skiing, wading, pleasure boating, marinas, fishing and hunting

Fish, shellfish, and wildlife propagation and sustenance, and waterfowl and migratory birds habitat and resting

Navigation channels and port facilities

Esthetic appeal.

RESOLVED BY THIS REGIONAL BOARD

BOARD INTENT

1. Protect public health as it may be affected by these waste discharges.
2. Prevent nuisance, as defined in Section 13050(m) of the California Water Code.
3. Protect the beneficial water uses listed under "Staff Investigation", above.
4. Encourage the consolidation of these discharges with Vallejo Sanitation and Flood Control District.

WASTE DISCHARGE REQUIREMENTS - RECEIVING WATERS

1. The treatment or disposal of wastes shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. The discharges shall not:
 - a. Unreasonably affect any of the protected beneficial water uses resulting from:

Floating, suspended, or deposited macroscopic particulate matter or foam in waters of the State at any place;

Bottom deposits at any place;

Aquatic growths at any place;

Alteration of temperature, turbidity, or apparent color beyond present natural background levels in waters of the State at any place.

- b. Cause visible, floating, suspended or deposited oil or other products of petroleum origin in waters of the State at any place.
- c. Cause waters of the State to exceed the following limits of quality at any point:

Dissolved oxygen	5.0 mg/l minimum	
		When natural factors cause lesser concentrations then this discharge shall not cause further reduction in the concentration of dissolved oxygen
Dissolved sulfide	0.1 mg/l maximum	
Nutrients		to be prescribed at the earliest practicable date

WASTE DISCHARGE REQUIREMENTS - WASTE STREAM

The waste streams discharged to waters of the State shall meet these quality limits at all times:

- 1. In any grab sample:

Aluminum, dissolved	1.0 mg/l, maximum
Arsenic	3.0 mg/l, maximum
Chromium, total	1.0 mg/l, maximum
Copper	0.5 mg/l, maximum
Cyanides	0.1 mg/l, maximum
Iron, dissolved	
Any sample	7.0 mg/l, maximum
Average of any five consecutive samples	3.0 mg/l, maximum
Lead	0.05 mg/l, maximum
Mercury	0.005 mg/l, maximum
Nickel	5.0 mg/l, maximum
Phenols	0.03 mg/l, maximum
Zinc	1.0 mg/l, maximum

2. In any grab sample:

Settleable matter

The arithmetic average of
any six or more samples
collected on any day 0.5 ml/l/hr. maximum

80% of all individual samples
collected during maximum daily
flow over any 30-day period 0.4 ml/l/hr. maximum

Any sample 1.0 ml/l/hr. maximum

pH 7.0 minimum
8.5 maximum

3. In any representative set of samples:

Toxicity: Survival of test fishes in 96-hour bioassays of
the waste as discharged

Any determination 70% minimum

Average of any three or more con-
secutive determinations made
during any 21 or more days 90% minimum

4. Wastes as discharged or at some point in the treatment processes shall meet the following quality limits at all times:

Coliform Organisms 240 MPN/100 ml, median of five
consecutive samples, maximum
10,000 MPN/100 ml, any single sam-
ple, maximum when verified by a
repeat sample taken within 48 hrs.

The Board will accept proof of ef-
fective effluent disinfection in
terms of factors other than bac-
terial concentrations if the dis-
charger documents a sound sta-
tistical correlation between such
factors and bacterial analysis,
and provided the conditions of
sewage strength and treatment do
not change from the demonstration
period.

PROHIBITION

Pursuant to Section 13243 of the California Water Code, Wastes "D" and "E" are prohibited to surface waters or waterways and shall be kept entirely beneath the ground surface at all times.

REPORTING REQUESTS

1. Pursuant to Section 13267 of the California Water Code and in accordance with the Federal Water Pollution Control Act and Executive Order No. 11507, this Regional Board requests the discharger to file with the Board on or before February 1, 1971.
 - a. A technical report on consolidating the discharger's sewerage system with Vallejo Sanitation and Flood Control District.
 - b. A detailed program and time schedule for the provision of all facilities necessary to eliminate the discharges of untreated wastes from the discharger's sewer system.
 - c. The earliest practicable date by which the discharges of wastes to San Pablo Bay will be terminated.
2. This Board requests the discharger to file technical reports on self-monitoring work performed according to detailed specifications developed pursuant to the Regional Board's Resolution No. 70-43. (Reference: Sections 13267(b) and 13268, California Water Code, Federal Water Pollution Control Act and Executive Order No. 11507.)
3. This Board requests the discharger to file a written report within 90 days after the average dry-weather waste flow for any month equals or exceeds 80% of the design capacity of his waste treatment and/or disposal facilities. The discharger's senior administrative officer shall sign a letter which transmits that report and certifies that the policy-making body is adequately informed about it. The report shall include:

Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for that day.

The discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of his facilities.

The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for his waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units. (Reference: Sections 13260, 13267(b) and 13268, California Water Code.)
4. This Board requires the discharger to file technical reports on studies into correcting violations of the Board's water quality objectives caused by discharging combined storm water and sewage. Specifications for these studies shall be developed pursuant to the Board's Resolution No. 70-43. (Reference: Sections 13267(b) and 13268, California Water Code, Federal Water Pollution Control Act and Executive Order No. 11507.)

5. This Board requests the discharger to develop and implement a program to prevent accidental waste spills, and to keep the Board informed of the progress and success of such programs. (Reference: Sections 13225(a) and (b), California Water Code.)
6. This Board requests the discharger to file a report on waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge. (Reference: Sections 13060(b) and 13264, California Water Code.)
7. This Board requests the discharger to file a written technical report at least 15 days prior to advertising for bids on any construction project which would cause or aggravate the discharge of waste in violation of these requirements; said report to describe the nature, costs and scheduling of all actions necessary to preclude such discharge. In no case should any discharge of sewage bearing wastes be permitted without at least primary treatment and chlorination. (Reference: Sections 13267(b) and 13268, California Water Code, Federal Water Pollution Control Act and Executive Order No. 11507.)

NOTIFICATIONS

1. This Board does not consider the discharge of waste to the tidal flats of San Pablo Bay to be satisfactory for long-range waste disposal.
2. This Board's Resolution No. 162 is hereby rescinded.
3. This Resolution includes items numbered 1, 2, 3, 4, 5, and 6 of the attached "Notifications", dated January 6, 1970.

WILLIAM C. WEBER
Chairman

December 22, 1970

I, Fred H. Dierker, hereby certify that the foregoing is a true and correct copy of Resolution No. 70-105 adopted by the California Regional Water Quality Control Board - San Francisco Bay Region at its regular meeting on December 22, 1970.

FRED H. DIERKER
Executive Officer
CALIFORNIA REGIONAL WATER QUALITY CONTROL
BOARD, SAN FRANCISCO BAY REGION

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
January 6, 1970

NOTIFICATIONS

1. This Board requests the discharger to take note of the comments and recommendations contained in all the correspondence the Board has received and considered concerning this matter, and the Executive Officer is directed to transmit copies of that correspondence to the discharger.
2. This Board considers "Waters of the State" as defined in Section 13050(e) of the California Water Code to include waste waters over which the discharger has lost control.
3. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under Federal, State, or local laws, nor guarantee the discharger a capacity right in the receiving waters.
4. This Board will prescribe more restrictive requirements for this waste discharge if necessary:
 - To achieve or maintain dissolved oxygen concentration of at least 5.0 mg/l in tidal waters of the San Francisco Bay System pursuant to Resolution No. 67-30,
 - To protect shellfishing areas which the Board designates pursuant to Resolution No. 803,
 - To protect the beneficial water uses, and to achieve other objectives adopted in the resolutions cited above.
5. This Board will review these requirements periodically, as required by law, and will notify the responsible persons before doing so. (Reference: Section 13263(e), California Water Code.)
6. The water quality parameters used in this resolution are as defined in the latest edition of "Standard Methods for the Examination of Water and Wastewater" by the American Public Health Association.
7. The discharger is advised that this Board will use the general concepts of Phase I of the plan recommended by the Final San Francisco Bay-Delta Program Report as guidelines in reviewing any application for construction grants for sewerage facilities proposed to comply with these requirements, and if the discharger intends to make such application he must demonstrate the compatibility of the proposed facilities with the general concepts of the Bay-Delta Program.