

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

RESOLUTION NO. 70-51

PRESCRIBING REQUIREMENTS FOR PROPOSED WASTE DISCHARGE  
BY PACIFIC GAS AND ELECTRIC COMPANY INTO THE SACRAMENTO  
RIVER NEAR NEW YORK POINT, CONTRA COSTA COUNTY

WHEREAS THIS REGIONAL BOARD HAS CONSIDERED

INFORMATION ABOUT THIS DISCHARGE

1. Pacific Gas and Electric Company, called the discharger below, filed a Report on Waste Discharge dated May 20, 1970 with this California Regional Water Quality Control Board pursuant to Section 13260(a) of the California Water Code.
2. That report and other data describe this proposed waste discharge, called Waste "D" herein, as industrial waste only consisting of 518 mgd of condenser cooling water mixed with demineralizer wastes from the proposed Unit 7 at the Pittsburg Power Plant. The demineralizer waste is discharged in batches of 18,000 gallons. Two such batches per week is the expected frequency; the maximum frequency will not exceed four per day or 72,000 gallons per day. The discharger proposes to partially neutralize the demineralizer wastes and to discharge them into the cooling water at a rate no greater than 50 gpm, diluting them with the cooling water at a ratio of about 1:5000.

The proposed Outfall "D" will discharge this waste into the Sacramento River approximately 30 feet below mean lower low water about 4000 feet west of New York Point and about 1050 feet off the south shore of the River through a 150 foot 20-port diffuser.

3. This Regional Board in Resolution No. 68-34 prescribed requirements for a shore-line discharge of this waste, identified as "Waste B", and stated that specific requirements regulating the effects of these discharges on the receiving water temperature may be prescribed at the earliest practicable date.

CORRESPONDENCE

This Regional Board has considered recommendations about this matter from:

1. State Department of Fish and Game in its memoranda dated May 17, 1968, May 14, 1970, May 26, 1970 and June 10, 1970.
2. State Department of Public Health in its memorandum dated June 15, 1970.
3. State Department of Water Resources in its memorandum dated June 22, 1970.

STAFF INVESTIGATION

1. These waste discharges can affect the following existing beneficial water uses of the Sacramento River and contiguous water bodies:

Seasonal source of domestic water supply at Antioch and at Mallard Slough

Industrial cooling and process water supply year-round

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 enjoyment.

2. Land within 2000 feet of the waste discharge outfall is used for industry.
3. Tidal waters east of the westerly end of Chipps Island have been available for domestic, industrial, and agricultural water supplies such that the mean tidal cycle chloride concentrations at Chipps Island have not exceeded 150 mg/l for an average of 150 days between November 1 and June 30 from 1944 through 1965.

RESOLVED BY THIS REGIONAL BOARD

BOARD INTENT

1. Protect public health as it may be affected by this waste discharge.
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, as they may be affected by this discharge.

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 discharge 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 color or turbidity 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 within one foot of the water surface:

pH	, 7.0 minimum 8.5 maximum
Dissolved oxygen	5.0 mg/l minimum
Nutrients	to be prescribed at the earliest practicable date
Ammonium hydroxide, undissociated	to be prescribed at the earliest practicable date

This Board will consider prescribing specific requirements for the concentration of Copper and Zinc in the receiving waters after enough new data has been obtained and evaluated; in the meanwhile, the Board considers the following to be receiving water quality goals for the points described above:

Copper	0.05 mg/l maximum
Zinc	0.1 mg/l maximum
Other substances	Any one or more substances in concentrations that impair any of the protected beneficial water uses or make aquatic life or wildlife unfit or unpalatable for consumption.

- d. Cause the waters of the State at any point east of the western end of Chipps Island and within 2000 feet of any diversion being used for a domestic water supply to exceed the following limits of quality:

Carbon chloroform extract	0.2 mg/l, maximum
Chromium, hexavalent	0.02 mg/l, maximum
Phenols	0.001 mg/l, maximum.

3. This discharge, in combination with other thermal discharges into receiving waters near Pittsburg, shall not cause the receiving water temperature, as determined pursuant to the specifications in paragraph 5 below, to exceed their natural background temperature at any point:
  - a. Beyond 50% of the width of the Sacramento River within one foot of its surface
  - b. In excess of 25 percent of the cross-sectional area of the Sacramento River.
4. This discharge shall not cause waters of the State to exceed the natural background temperature within one foot of the water surface at any point by more than 6°F., maximum.
5. Compliance with the foregoing thermal requirements shall be based on comparing observed temperatures, within a measurement tolerance of 1° F, with natural background temperatures for Water Quality Zone 8 as set forth in Table 1 of this Regional Board's Resolution No. 69-6. The description of natural background temperature may be revised after analysis of data from technical studies into temperature characteristics of the receiving waters, pursuant to Paragraph 2 of "Reporting Requirements", below.

WASTE DISCHARGE REQUIREMENTS - WASTE STREAMS

1. Waste "D" as discharged to waters of the State shall meet these quality limits at all times in any representative 24-hour composite sample:
  - a. Toxicity: the concentration of the waste itself in the receiving waters at any point within one foot of their surface
 

10 percent of the 96-hour TL <sub>m</sub> concentration of the waste as discharged, maximum
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b. Grease:

Whenever the receiving water requirement prohibiting this discharge from causing visible oil or grease is not being met, these requirements shall apply:

Grease concentration in the effluent	5.0 mg/l, maximum
Combined grease discharge rate for this waste and other wastes from the discharger's Pittsburg Power Plant	48 pounds/day, maximum 4 pounds /hour, maximum

REPORTING REQUIREMENTS

1. This Resolution includes items numbered 1, 6, and 7 of the attached "Reporting Requirements", dated January 1, 1970.
2. Pursuant to Sections 13267(b) and 13268 of the California Water Code, this Regional Board requires the discharger to file reports on technical studies to define the temperature characteristics of the receiving waters near the proposed discharge point, and to predict the characteristics of the waste plume that will be caused by the proposed diffuser. These studies shall be performed according to detailed specifications developed pursuant to this Regional Board's Resolution No. 70-43.

NOTIFICATIONS

This Resolution includes items numbered 1, 2, 3, 4, 5, and 6 of the attached "Notifications", dated January 6, 1970.

WILLIAM C. WEBER  
Chairman

June 25, 1970

I, Fred H. Dierker, hereby certify that the foregoing is a true and correct copy of Resolution No. 70-51 adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, at its regular meeting on June 25, 1970.

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