

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 79-99

NPDES NO. CA0004049

WASTE DISCHARGE REQUIREMENTS FOR:

PACIFIC GAS & ELECTRIC COMPANY  
MARTINEZ POWER PLANT  
MARTINEZ, CONTRA COSTA COUNTY

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

1. Pacific Gas and Electric Company, hereinafter discharger, submitted an application dated May 31, 1979, for reissuance of NPDES Permit No. CA0004049, originally issued by the Board on December 17, 1974, as Order No. 74-203, for the Martinez Power Plant.
2. The Martinez Power Plant is a 50 megawatt gas and oil fired generating plant which produces 960 megawatt hours and 2000 tons of steam per day. This plant now discharges wastes containing pollutants, as described below:
  - a. Waste 001 consists of cooling tower blowdown, boiler blowdown, low volume wastes (softener blowdown; evaporator blowdown; air preheater, fireside, and waterside washes; and other miscellaneous wastes), and stormwater. All of these wastes are combined for lime addition followed by clarification, dual media filtration, and pH adjustment. The average flow is approximately 252,000 gallons per day (gpd) while the maximum flow is about 525,000 gpd. After treatment, Waste 001 is discharged into a pair of series-flow settling ponds situated about 400 feet southeast of the plant site and within the Martinez Refinery of the Shell Oil Company. The pond effluent is discharged into a buried drain which empties into an un-named watercourse at a point about 2500 feet east from the Refinery Pacheco Gate No. 4. That watercourse is tributary to Peyton Slough which flows into Suisun Bay near Bulls Head. The slough and Suisun Bay are waters of the United States. The flow values for Waste 001 may increase when the discharger begins using Contra Costa County Water District reclaimed water.
  - b. Waste 002 is storm runoff from the fuel oil storage tank area. It is discharged into a roadside ditch on Shell Avenue, at an unmeasured rate. In the future this waste may be routed through the treatment system.

3. On March 16, 1978, the State Water Resources Control Board adopted a Cease and Desist Order (Order No. 78-5, Exhibit E) for the discharger. The discharger complied with that Order by installing the treatment system described in Finding 2, above.
4. In April 1975 the Board adopted a Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan).
5. The beneficial uses of Suisun Bay and contiguous waters, as identified in the Basin Plan, are:
  - a. Recreation (contact and non-contact).
  - b. Fish migration and spawning.
  - c. Habitat for wildlife and estuarine organisms including some rare and endangered species.
  - d. Industrial water supply.
  - e. Esthetic enjoyment.
  - f. Navigation.
  - g. Commercial and sport fishing.
6. Effluent limitation, toxic effluent standards, established pursuant to Sections 208(b), 301, 304, and 307 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.
7. This project involves the continued operation of a privately-owned facility with negligible or no expansion of use beyond that previously existing. Consequently, this project will not have a significant effect on the environment based upon the exemption provided in Section 15101, Title 14, California Water Code.
8. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
9. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the Martinez Power Plant of Pacific Gas & Electric Company, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. The discharge of Waste 001 containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-Day Average</u>	<u>Maximum Daily</u>
a. Total suspended solids	kg/day mg/l	* 30	* 100
b. Oil & grease	kg/day mg/l	* 15	* 20

2. The discharge of boiler blowdown containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-Day Average</u>	<u>Maximum Daily</u>
a. Iron, total	kg/day mg/l	* 1.0	* 1.0
b. Copper, total	kg/day mg/l	* 1.0	* 1.0

\*Allowable mass emission rates shall be calculated by multiplying the allowable concentration times the actual flow.

3. Waste 001 shall not contain a chlorine residual in excess of 0.0 mg/l.
4. The temperature of Waste 001 shall not exceed the natural temperature of Suisun Bay by more than 20°F.
5. In any representative set of samples Waste 001 as discharged shall meet the following limit of quality:

The survival of test fishes in 96-hour bioassays of the effluent shall be a 90th percentile value of not less than 70 percent survival and a median of not less than 90 percent survival.

6. The pH of Waste 001 shall not be less than 6.5 or greater than 8.5.
7. The concentration of oil and grease in Waste 002 shall not exceed 15 mg/l.

B. 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;



C. Provisions

1. The discharge of poly-chlorinated biphenyls to waters of the State is prohibited.
2. There shall be no bypass of untreated wastewater to waters of the State.
3. This Board's Order No. 74-203 and Exhibit E of State Board Order No. 78-5 are hereby rescinded.
4. This Order includes the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977 except for items A.5, A.12, B.2, and B.5.
5. 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 take effective at the end of ten days from date of hearing provided the Regional Administrator, U. S. Environmental Protection Agency has no objections.
6. This permit may be modified, or, alternatively, revoked and reissued, to comply with any applicable effluent limitation issued pursuant to the order the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et. al. v. Russell E. Train, 8 ERC 2120 (D.D.C. 1976), if the effluent limitation so issued:
  - (a) is different in conditions or more stringent than any effluent limitation in the permit; or
  - (b) controls any pollutant not limited in the permit.
7. This Order expires on September 30, 1980, and the discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

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 August 21, 1979.

FRED H. DIERKER  
Executive Officer

Attachments:

Standard Provisions, Reporting  
Requirements & Definitions - April 1977  
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM  
FOR

PACIFIC GAS & ELECTRIC CO.

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MARTINEZ POWER PLANT

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NPDES NO. CA 0004049

ORDER NO. 79-99

CONSISTS OF

PART A , dated 1/78

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	At a point in the outfall line where all (and only) power plant wastes are present and all treatment is complete.
E-002	At the valves which release stormwater from the oil tank storage area.
E-003	At a point in the boiler blowdown line where all boiler blowdown is present prior to mixing with other wastes.

B. MISCELLANEOUS REPORTING

1. In the annual summary for each calendar year, confirm that no poly-chlorinated biphenyls were present on the plant site during that year.

II. SCHEDULE OF SAMPLING AND ANALYSIS

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

III. MODIFICATION OF PART A

Delete: C.3, C.4, C.5.a, C.5.c, C.5.d, D.3, D.4, and E.4.

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 Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 79-99.
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.

FRED H. DIERKER  
Executive Officer

Attachment:  
Table I

Effective Date \_\_\_\_\_

TABLE I  
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSES

SAMPLING STATIONS	E-001				E-002		E-003
	Cont	G	C-24	O	G	O	G
FLOW RATE (mgd)			D				M (3)
CHLORINE RESIDUAL & DOSAGE (mg/l & kg/day)							
SETTLEABLE MATTER (ml/l-hr. & cu. ft./day)							
TOTAL SUSPENDED MATTER (mg/l & kg/day)			M (2)				
OIL & GREASE (mg/l & kg/day)		(1) M (2)			E		
FISH TOXICITY, 96-hr. % SURVIVAL IN UNDILUTED WASTE			Q				
pH (units)	Cont				E		
TEMPERATURE (°C)	Cont						
COPPER (mg/l & kg/day)							M (2) M (3)
ALL APPLICABLE STANDARD OBSERVATIONS				(2) M		E	
IRON (mg/l & kg/day)							(2) M (3)
TOTAL IDENTIFIABLE CHLORINATED HYDROCARBONS (mg/l & Kg/day)							

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample  
C-24 = composite sample - 24-hour  
Cont. = continuous sampling  
O = observation

TYPES OF STATIONS

E = waste effluent stations

FREQUENCY OF SAMPLING

E = each occurrence (of runoff discharge)  
D = once each day  
W = once each week  
M = once each month  
Cont = continuous  
Q = quarterly

NOTES FOR TABLE I

1. Separately collect and analyze three grab samples for oil and grease on each sampling day. Use the arithmetic average as the concentration value for that day, and calculate kg/day discharge rate from that value and the total flow for the day.
2. If any monthly sample is found to contain a constituent in excess of the 30-day average limitation, the analyses shall be performed weekly until a 30-day average shall have been determined which indicates that the waste is in compliance.
3. Estimates or calculations of boiler blowdown flow shall be determined for the day on which samples are collected.