

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 99-022
NPDES NO. CA0030082

WASTE DISCHARGE REQUIREMENT FOR:

PACIFIC GAS AND ELECTRIC COMPANY
SHELL POND
BAY POINT, CONTRA COSTA COUNTY

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

APPLICATION

1. Pacific Gas and Electric Company (hereinafter called the Discharger) by application dated April 1, 1997, has applied for issuance of new waste discharge requirements under the National Pollutant Discharge Elimination System. The site is owned by the Discharger.

FACILITY DESCRIPTION

2. The 72-acre pond is located one half mile northwest of North Broadway Street in Bay Point. Between 1953 to 1980 it was used as a wastewater treatment pond by Shell Chemical Company. Shell used it for sedimentation, floatation, and biological treatment of wastewater and stormwater.
3. The pond has not been used for wastewater treatment since about 1980. Currently, water from an adjacent slough is pumped into the pond to mitigate the potential for the formation of fugitive dusts. There are no active discharges from the pond.
4. The pond water is currently higher in salinity than adjacent slough. This is typical of water found in enclosed basins where evaporation concentrates the salinity, the existing salinity is far above the tolerance of salt marsh species.
5. The sediment quality of the pond is comparable to sediment quality of the Bay Area.
6. A remedial action encouraging enhancement of wetland and wildlife habitat for the pond is desired by the regulatory agencies.

7. This project is designed to reduce the salinity by pumping water from an adjacent slough into the pond and out through the former discharge structure under controlled conditions. It is anticipated that because of the size of the pond and the proposed discharge rate, it will take up to three years to fully circulate the waters in the pond. This full circulation will likely result in a significant drop in the salinity. It is anticipated that significant habitat enhancement will start to occur after the full circulation.
8. The Discharger proposes to discharge an estimated flow of up to 1.0 million gallons per day (mgd) of the pond water. The pond water will consist of water pumped from a nearby slough and influent wet weather stormwater drainage. The discharge from the pond is directed to a slough adjacent and tributary to Suisun Bay at Longitude 38^o 02' 34" and Latitude 122^o 05' 12".

APPLICABLE PLANS, POLICIES AND REGULATIONS

9. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board (State Board) and the Office of Administrative Law on July 20 and November 13, 1995, respectively. The Basin Plan defines beneficial uses and water quality control objectives for waters of the State, including surface and ground waters.
10. This permit may be modified prior to the expiration date, pursuant to 40 CFR 122.62 and 124.5, to include effluent limitations for pollutants determined to be present in amounts in the discharge that have "reasonable potential" for contributing to an exceedance of a water quality objective, through a more comprehensive monitoring program included as a part of this Order.

BENEFICIAL USES

11. The beneficial uses of Suisun Bay and contiguous water bodies are:
 - a. Ocean, Commercial and Sports Fishing
 - b. Estuarine Habitat
 - c. Industrial Service Supply
 - d. Fish Migration
 - e. Navigation
 - f. Preservation of Rare and Endangered Species
 - g. Water Contact Recreation
 - h. Non Contact Water Recreation
 - i. Fish Spawning
 - j. Wildlife Habitat

BASIS FOR REQUIREMENTS

12. Effluent and receiving water limitations in this Order are based on the plans, policies, and water quality objectives and criteria of the Basin Plan, Quality Criteria for Water (EPA/5-86-001, 1986; Gold Book), applicable Federal Regulations (40 CFR Part 122 through 131), and best professional judgment.
13. As specified in 40 CFR 122.44(d) (1) (i), permits are required to include limits for all pollutants “which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard.” The Regional Board staff have analyzed the effluent data to determine if the discharges have reasonable potential to cause or contribute to an exceedance of a State water quality objectives (“RP Analysis”). The RP analysis compares the effluent data with the National Toxics Rule (NTR) criteria and the Basin Plan objectives. The RP analysis assumed that the effluent would not receive any dilution. The result of RP analysis is that chromium, mercury, and selenium are found to have the reasonable potential to exceed water quality objectives.

For all parameters that have “reasonable potential” for contributing to an exceedance of a water quality objective, numeric water quality-based effluent limitations are established. The water quality-based effluent limitations are based on U.S. EPA NTR water quality criteria and the Basin Plan objectives.

CEQA AND PUBLIC NOTICE OF ACTION

14. The issuance of waste discharge requirements for this discharge is exempt from the provision 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.
15. The Board has notified the Discharger and interested agencies and persons of its intent to issue 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.
16. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED THAT Pacific Gas and 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 Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. The discharge of any sewage or industrial waste to Shell Pond is prohibited. The prohibition does not apply to stormwater runoff from adjacent land areas.
2. The application of biocides is prohibited unless it has been demonstrated to the satisfaction of the Board that a net environmental benefit results from their application. Should the use of biocides become necessary during the life of this permit, written approval must be first obtained from the Executive Officer.
3. The discharge from the pond is prohibited from January 1 to August 1 of each year unless it is approved by the Executive Officer. The Discharger shall provide approval from the Contra Costa Water District prior to requesting exception to this prohibition.

B. Pond Water Limitations

1. Toxic Substances Effluent Limitations: The discharge of effluent from the pond containing constituents in excess of the following limitations is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Mass Emission</u> ^[1]
Chromium (VI) ^[2]	lb/month	2.84
Mercury	lb/month	0.006 ^[3]
Selenium	lb/month	1.29

[1] The mass emission shall be calculated as follows:

$$\begin{aligned} \text{Flow} &= \text{Total flow for each month (MG per month)} \\ \text{Conc.} &= \text{Average of concentrations measured in each month (mg/l)} \\ \text{Mass emission limit (lb./month)} &= \text{Flow (MG per month) X Conc. (mg/l) X} \\ & 8.344 \end{aligned}$$

[2] The Discharger may, at its option, meet this limitation as total chromium.

- [3] Compliance will be based on the practical quantitation level (PQL) of no more than 0.02 micro-gram per liter or justified otherwise.
- 2. The Discharger shall maintain the following limits of water quality in the effluent from the pond:
 - a. Dissolved oxygen: 5.0 mg/l minimum
 - b. pH: 6.5 - 8.5
- 3. The Discharger shall not cause the following conditions at any point in Shell Pond:
 - a. Aquatic growths in quantities sufficient to create a nuisance condition as defined in the California Water Code;
 - b. Visible, floating, suspended, or deposited oil or other petroleum products; and
 - c. Toxic or other deleterious substances to be present in concentrations or quantities which will cause detrimental effects on wildlife, waterfowl, or aquatic biota, 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.

C. Receiving Water Limitations (Suisun Bay and discharge sloughs)

- 1. The discharge 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 above natural background levels in Suisun Bay or discharge sloughs;
 - b. Significant increase in apparent color or turbidity beyond natural background levels in Suisun Bay or discharge sloughs;
 - c. Aquatic growths in quantities sufficient to create a nuisance condition as defined in the California Water Code;
 - d. Visible, floating, suspended, or deposited oil or other petroleum products; and

- e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause detrimental effects on wildlife, waterfowl, or aquatic biota, 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 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 Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto the Board will revise and modify this Order in accordance with such standards.

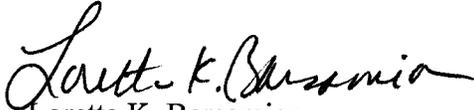
D. Provisions

1. The discharge shall submit a Pond Management Plan acceptable to the Executive Officer no later than October 1, 1999.
2. The Discharger shall review and update its Pond Management Plan annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or a statement that no changes are needed, shall be submitted to the Board on July 1 of each year.
3. The Discharger shall submit a study proposal, acceptable to the Executive Officer, that includes detailed descriptions of tasks and time schedules to evaluate impacts of the discharge on the intake slough, pond, and discharge slough by May 1, 2003.
4. The Discharger shall comply with the attached self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.
5. The Discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions," dated August 1993, with the exception of provisions A.5, A.7, A.8, B.1-B.4, C.1-C.2, and D.3.
6. Pursuant to U.S. EPA regulations 40 CFR 122.44, 122.62, and 124.5, this permit may be modified prior to the expiration date.
7. All applications, reports, or information submitted to the Board shall be signed and certified pursuant to 40 CFR 122.41(k).
8. Pursuant to 40 CFR 122.41(a), the Discharger shall notify the Board as soon as it knows or has reason to believe 1) that they have begun or expect to begin, use or manufacture of a toxic pollutant not reported in the permit

application, or 2) a discharge of a toxic pollutant not limited by this permit has occurred, or will occur, in concentrations that exceed the specified notification levels limits in 40 CFR 122.42(a).

9. This Order Expires on May 25, 2004. The Discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Code of Regulations not later than 180 days in advance of the expiration date as application of issuance of new Waste Discharge Requirements.
10. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective ten (10) days after the date of its adoption provided the Regional Administrator, U.S. EPA, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn. The Board has classified this discharger as a minor discharger.
11. The Discharger shall comply with all sections of this Order immediately upon adoption.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the forgoing is a full, true and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on May 25, 1999.


Loretta K. Barsamian
Executive Officer

Attachments:

Self-Monitoring Program
Standard Provisions, Reporting Requirements, and Definitions (August 1993)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

PACIFIC GAS AND ELECTRIC COMPANY
SHELL POND

CONTRA COSTA COUNTY

NPDES NO. CA0030082

ORDER NO. 99-022

CONSISTING OF

PART A (Dated August 1993)

AND

PART B (Dated February 17, 1999)

SELF-MONITORING PROGRAM
FOR
PACIFIC GAS AND ELECTRIC COMPANY - SHELL POND

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INTAKE

<u>Station</u>	<u>Description</u>
I-1	At a point in the intake slough immediately adjacent to Shell Pond intake structure, as indicated on the attached map.

B. EFFLUENT

<u>Station</u>	<u>Description</u>
E-1	At a point in Shell Pond, immediately adjacent to the overflow structure, as indicated on the attached map.

C. RECEIVING WATER

<u>Station</u>	<u>Description</u>
R-1	At a point in the discharge slough, as indicated on the attached map.

D. LAND OBSERVATIONS

<u>Station</u>	<u>Description</u>
L-1 thru L-4	Located along the perimeter levees of the pond at the four opposite corners.

II. SCHEDULE OF SAMPLING, MEASUREMENT, AND ANALYSIS

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

III. MODIFICATION OF PART A DATED AUGUST 1993

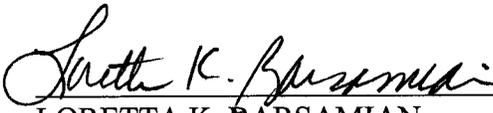
A. Part A of the Self-Monitoring Program is modified to exclude the following paragraphs:

C.1, C.2.a, C.2.c, C.2.f, C.2.g, C.4.a, D.4, D.5, E, F.4.g, F.5

B. Self-monitoring reports shall be submitted quarterly.

I, Loretta K. Barsamian, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures 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 Board Order No. 99-022
2. Has been order by the Board on May 25, 1999.
3. May be revised by the Executive Officer pursuant to federal regulations (40 CFR 122.36); other revisions may be order by the Board.


LORETTA K. BARSAMIAN
Executive Officer

Attachments:

Table I
Sampling Location Map

TABLE I
 SCHEDULE FOR SAMPLING, MEASUREMENT, AND ANALYSIS
 Pacific Gas and Electric Company
 Shell Pond

SAMPLING STATIONS	I-1	E-1	R-1	L-1 thru L-4
TYPE OF SAMPLE	Grab	Grab	Grab	
Flow Rate (mgd)	D ¹	D ²		
Turbidity (NTU)	M	M	M	
pH	M	M	M	
Dissolved Oxygen (mg/l)	M	M	M	
Oil and Grease (mg/l)		M	M	
Temperature (°C)	M	M	M	
Arsenic	Q	Q		
Cadmium	Q	Q		
Chromium (VI)	M	M		
Copper	Q	Q		
Lead	Q	Q		
Mercury	M	M		
Nickel	Q	Q		
Selenium	M	M		
Silver	Q	Q		
Zinc	Q	Q		
All Applicable Standard Observations				M ³

FREQUENCY OF SAMPLING

D = Daily

M = Once each month

Q = Quarterly

1. To be estimated based on the daily influent pumping rate.
2. To be measured using a flow measurement device.
3. Standard observations shall be the same as those described for receiving waters in Part A, Paragraph E.1.