

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 85-80
WASTE DISCHARGE REQUIREMENTS FOR:

PACIFIC GAS AND ELECTRIC COMPANY, REDWOOD REGIONAL OFFICE, SAN
RAFAEL, MARIN COUNTY

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

1. Pacific Gas and Electric Company, hereinafter called the discharger, owns a 17 acre site in San Rafael, located at 3rd Street and Brooks Avenue. (See Site Map, Attachment A). The discharger is a public utility and provides gas and electric service in northern and central California. The discharger currently plans to transfer title to the southeastern portion of the site (approximately 8 acres) to the City of San Rafael Redevelopment Agency.
2. The discharger has submitted a Report of Waste Discharge, dated May 30, 1985 and supporting technical reports, dated August 1984 and April 1985. The reports include ground water investigation data and contain a remedial action plan.
3. The site investigations found soil and groundwater contaminated with polynuclear aromatic hydrocarbons and volatile organics. Some heavy metals, and traces of polychlorinated biphenyls in low concentrations were also found on the site. The site was formerly the site of a coal/gas manufacturing facility that terminated operations in the early 1950's. Lampblack, a waste product of the gas manufacturing process, had accumulated on the property on top of thick layers of impermeable bay mud and was subsequently covered with six feet of fill to provide the present grade. Although the investigations have indicated that the contamination is primarily confined to within the

site boundaries, the discharger is presently studying the extent of contamination outside the boundaries. Lead found on the site was assumed to be associated with current and former gasoline stations on the property. These areas also had gasoline in the soil.

4. The remedial action plan proposed by the discharger consists of containment of the contaminants located within the facility boundaries, and an internal groundwater treatment system. This plan includes a partial slurry wall keyed into the older alluvium beneath the bay mud along the perimeter of the site and installation of a groundwater extraction and treatment system. The groundwater treatment system will remove the polynuclear aromatic hydrocarbons by chemical precipitation and sedimentation with alum followed by granular activated carbon adsorption. The treated groundwater will be discharged to the Central Marin Sanitation District.
5. The groundwater control and treatment plan as discussed in Finding 4, appears to be an effective method to mitigate on-site pollution.
6. The extent of off-site groundwater pollution has not been defined. The undefined pollution presents a potential threat to beneficial uses. Additional studies and monitoring are necessary to define the extent of pollution, threat to beneficial uses, and alternative remedial strategies.
7. The Board adopted a revised Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region on July 21, 1982. The Basin Plan contains water quality objectives for San Rafael Creek and San Francisco Bay. The Basin Plan also contains water quality objectives for groundwater.
8. The beneficial uses of San Rafael Creek and San Francisco Bay include:
 - a) Recreation
 - b) Fish migration and habitat
 - c) Habitat and resting for water fowl and migratory birds
 - d) Industrial water supply
 - e) Esthetic enjoyment

9. Currently, there are no beneficial uses of groundwater underlying the facility. The potential beneficial uses of the groundwater may include:
 - a. Industrial process water supply
 - b. Industrial service supply
 - c. Domestic supply
 - d. Agricultural supply
10. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
11. This project constitutes a minor modification to land and such activity is thereby exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with Section 15304 of the Resources Agency Guidelines.
12. 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, Redwood Regional Office, San Rafael, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. Prohibitions

1. The discharge of wastes or hazardous materials through subsurface transport to surface waters in quantities or concentrations which will degrade beneficial uses is prohibited.
2. The discharge of wastes or hazardous materials through subsurface transport to surface waters in quantities or concentrations which will degrade beneficial uses is prohibited.
3. Activities associated with the subsurface investigation and cleanup which will cause further migration of the pollution is prohibited.
4. Bypassing of wastewater from the wastewater treatment system to waters of the State is prohibited. If bypassing should occur, the discharger shall notify this Board's Executive Officer as soon as possible.

B. Specifications

1. The treatment or disposal of waste shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. Groundwater extracted for treatment and discharge shall receive the best practicable treatment prior to discharge to the sanitary sewer treatment system.
3. The vertical and lateral extent of pollution shall be defined at all times. Should monitoring results show evidence of plume migration, additional plume characterization shall be required.
4. Vertical and lateral hydraulic flow from the containment area to adjacent surface waters shall be prevented by the presence of a natural or artificial impervious barrier and an active extraction system.

C. Provisions

1. The discharger shall commence construction of the approved remedial action plan measures immediately upon adoption of this Order. The discharger shall complete construction and commence groundwater cleanup in the shortest reasonable period of time. A report containing the time schedule for completion of construction and commencement of the groundwater cleanup system shall be submitted within 30 days after adoption of this Order.
2. The discharger shall report to the Board annually, with the first report due June 20, 1986, on effectiveness of the groundwater cleanup program. The report shall discuss the best practicable treatment of the extracted groundwater, the status of the underground waste plume, and the expected results of future extractions.
3. The discharger shall report on the status of groundwater contamination in the area off-site, as described in Finding 3 and Finding 6. This report shall be submitted by April 1, 1986 and contain information on the lateral and vertical extent of contamination and a discussion of the alternative remedial action measures and resultant potential affects on beneficial uses. The Board will review the findings of this report and amend this Order accordingly.

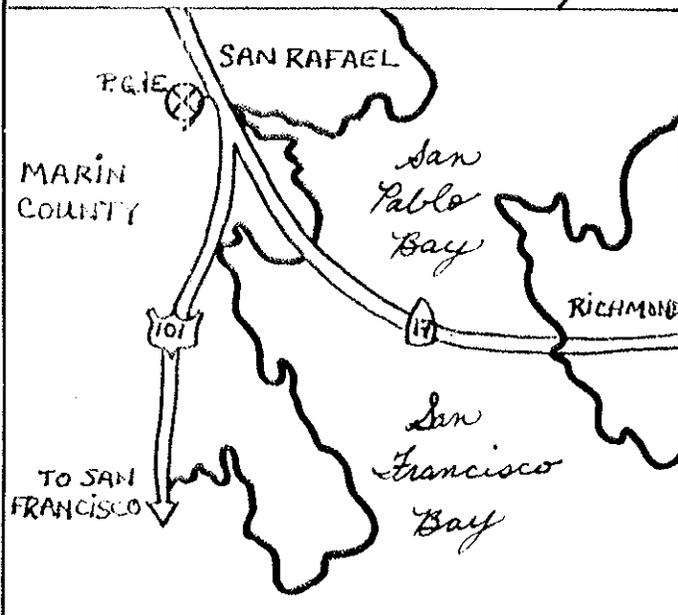
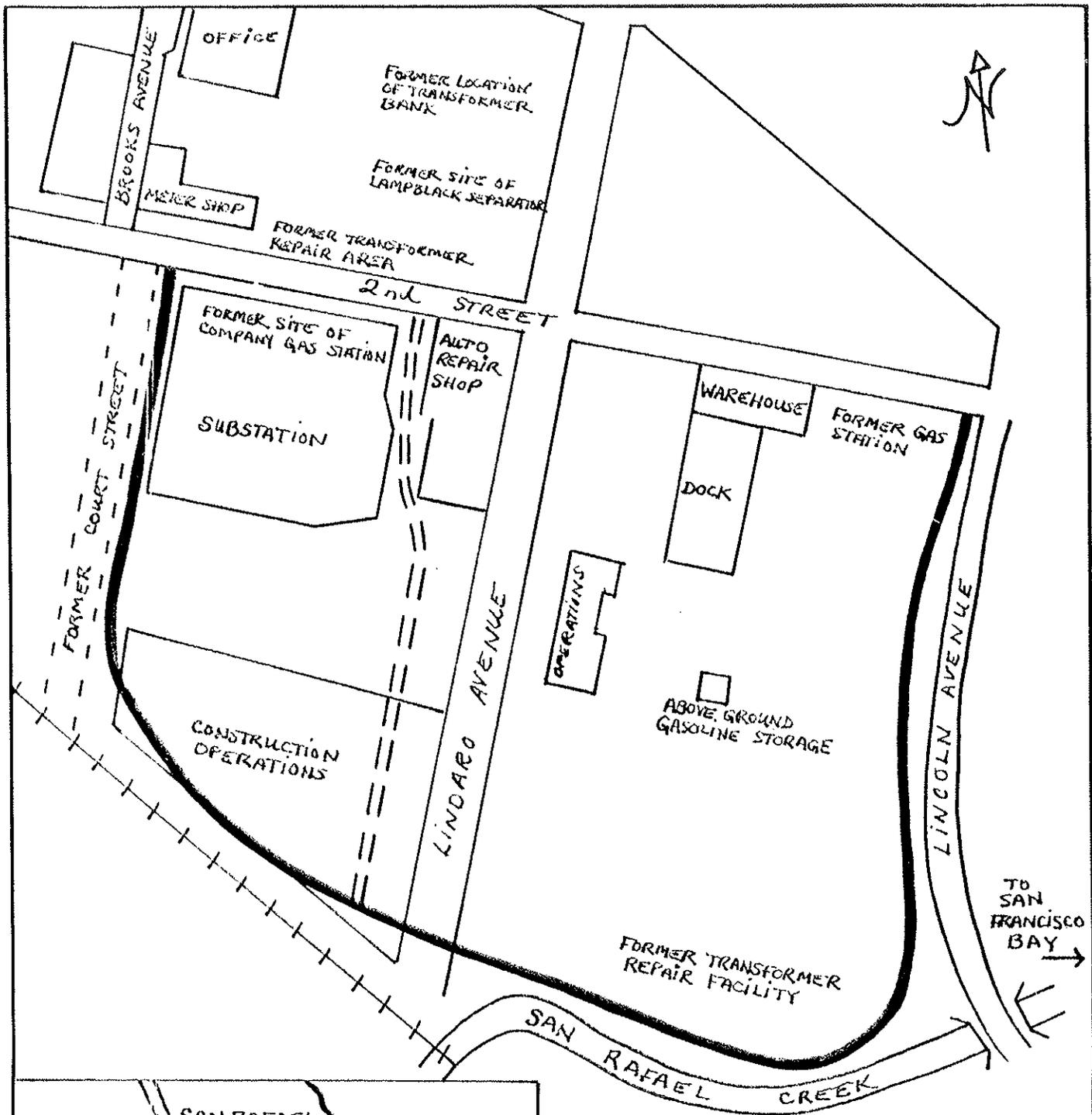
4. All samples shall be analyzed by laboratories using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.
5. The discharger shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:
 - a. Entry upon premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept.
 - b. Access to copy any records required to be kept under terms and conditions of this Order.
 - c. Inspection of any monitoring equipment or methods required by this Order.
 - d. Sampling of any groundwater or soil which is accessible, or may become accessible as part of any investigation or remedial action program, to the discharger.
6. The discharger shall file a report on any material changes in the nature, quantity, or transport of polluted groundwater associated with the pollution described in this Order.
7. The discharger shall maintain in good working order and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.
8. The Board will review this Order periodically and may revise the requirements when necessary.
9. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by a letter, a copy of which shall be forwarded to this Board.

10. The discharger shall submit quarterly piezometric surface maps of the groundwater as part of studies to verify the PNA's and volatile organic chemical migration potential.
11. The discharger shall submit to the Board technical reports on self-monitoring work performed according to a program approved by the Board's Executive Officer.
12. The discharger shall comply with all sections of this Order immediately upon adoption.

I, Roger B. James, 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 19, 1985.

for 
ROGER B. JAMES
Executive Officer

Attachments:
A. Site Map



LEGEND	
==	EXTRACTION TRENCH
~	SLURRY WALL

STATE OF CALIFORNIA
 REGIONAL WATER QUALITY CONTROL BOARD
 SAN FRANCISCO BAY REGION

ATTACHMENT A-SITE LOCATION MAP
 PACIFIC GAS AND ELECTRIC COMPANY
 SAN RAFAEL, MARIN COUNTY
 (Not To Scale)

DRAWN BY: *RMA* DATE: 4-12-85 DRWG. NO.