

California Regional Water Quality Control Board  
North Coast Region

CLEANUP AND ABATEMENT ORDER NO. R1-2006-0033

for

PACIFIC GAS AND ELECTRIC COMPANY  
THE 137 SANTA ROSA GROUP PARTNERSHIP  
MADELINE L. MUSCO  
GEORGE LAWRY  
RICHARD COLOMBINI  
KENNETH COKER  
JOEL DeSILVA  
AND  
UPWAY PROPERTIES

FOR

THE FORMER PACIFIC GAS AND ELECTRIC COMPANY  
GAS MANUFACTURING PLANT AT FIRST AND B STREETS  
SANTA ROSA

Sonoma County

The California Regional Water Quality Control Board, North Coast Region, (hereinafter Regional Water Board), finds that:

1. In 1876, the Santa Rosa Gas Light Company erected a coal gas manufacturing plant at First and B Streets in Santa Rosa, California (hereinafter Site). The plant was converted to an oil gas manufacturing plant in 1904. Pacific Gas & Electric Company (PG&E) owned and operated the gas manufacturing plant from approximately 1905 until 1924. The Site location map is included as Attachment A.
2. Pacific Gas & Electric Company operated a natural gas distribution facility sometime after closure of the oil gas manufacturing plant until approximately 1969.
3. The primary residues from the gasification process include oily tars and lampblack, which contain polynuclear aromatic hydrocarbons (PAHs), some of which are human carcinogens.
4. In 1986, PG&E conducted a Site assessment to evaluate environmental conditions, determine human health risks and identify appropriate management measures to mitigate potential exposure. The results revealed the presence of PAHs and hazardous waste levels of lead in shallow soils.
5. Regional Water Board enforcement actions began on July 31, 1987, with the issuance of Cleanup and Abatement Order (CAO) No. 87-112 to PG&E. CAO No. 87-112 contained directives to submit a plan to determine the extent of contamination, provide regular updates, and submit a plan to cleanup and abate the effects of the contamination. PG&E did not conduct the tasks required by the CAO.
6. In August 1987, The 137 Santa Rosa Group Partnership (Partnership), a party that had previously entered into an agreement to purchase the Site, drilled soil borings and collected soil samples confirming the presence of PAHs, and diesel and oil range

hydrocarbons in soil. In November 1987, the Partnership purchased the Site including Assessor's Parcel Number (APN) 10-068-17 and 10-068-20. The Partnership currently includes Madeline Musco, George Lawry, Richard Colombini, Kenneth Coker and Joel DeSilva.

7. On January 13, 1988, CAO 87-112 was amended by CAO No. 88-11 to recognize the change in property ownership. On April 18, 1988, CAO No. 88-63 was issued amending CAO No. 88-11. CAO No. 88-63 was issued to Pacific Gas and Electric Company and H.A. Musco as the managing partner of the Partnership.
8. Work conducted in 1988 on behalf of the Partnership included the drilling of soil borings, the installation of groundwater-monitoring wells, and the removal of a limited amount of impacted soil and coal tar. In 1989, a previously unknown 10,000-gallon underground storage tank was discovered and closed in place. Also in 1989, the Partnership constructed a bank building on the eastern portion of the parcel and the remainder of the Site was paved as a parking lot.
9. No investigative or cleanup work was conducted between 1989 and 1994. PG&E and the Partnership did not complete the work required by Cleanup and Abatement Order No. 88-63.
10. The presence of gas manufacturing waste, and diesel and oil range hydrocarbons were discovered in Santa Rosa Creek in 1995 and 1996 when the City of Santa Rosa collected soil samples in preparation for the Prince Memorial Greenway Project, a creek restoration and City park project.
11. The Partnership resumed groundwater monitoring in 1995 and found separate phase hydrocarbons (product) on groundwater; characterized as Bunker C oil.
12. On December 19, 1996, CAO No. 96-102 was issued reflecting the death of H. A. Musco. The amended Order required the dischargers to define the extent of onsite and offsite contamination, submit a remedial action plan and submit monthly reports. The Partnership drilled soil borings in the southern portion of the property adjacent to Santa Rosa Creek and found significant contamination including separate phase oil. Additional work to define the extent was proposed and approved by staff. PG&E and the Partnership did not complete the work required by the Order.
13. The record indicates that APN 10-068-17 was converted to APN 10-068-21 and APN 10-068-22. A specific date for this action is not included in the record. In May 1997, Upway Properties, LLC, purchased that portion of the Site identified as APN 010-068-021 and the Partnership retained APN 010-068-022. The Partnership notified Regional Water Board staff regarding the change in Site ownership on January 17, 2002. The Assessor's Parcel Map is included as Attachment B.
14. Based on information contained in the record assembled by the Regional Water Board, including evidence of past discharges at the Site, and current site ownership and control; PG&E, the 137 Santa Rosa Group Partnership, Madeline L. Musco, George Lawry, Richard Colombini, Kenneth Coker, Joel DeSilva and Upway Properties are collectively referred to as the Dischargers.
15. On April 12, 2001, a document identified as a Corrective Action Plan (CAP) was submitted on behalf of the Partnership. However, the plan contained a proposal to conduct work only on APN 010-068-022 and coordinate the work with the City of Santa Rosa Prince Memorial Greenway Project. The coordination of work with the City was acceptable. The CAP was not acceptable because it did not propose onsite corrective action and did not meet the requirements of the California Code of Regulations Title 23, Section 2725.

16. The City removed the north concrete wall of Santa Rosa Creek during construction of the Prince Memorial Greenway Project. This action revealed the presence of lamp black extending east near the Santa Rosa Avenue Bridge and west beyond the current property line. Elevated levels of diesel and motor oil range hydrocarbons, PAHs and lead were detected in soil samples. City of Santa Rosa staff reported separate phase oil on groundwater at the base of the creek during the drilling of retaining wall footings.
17. The analytical results of samples collected on behalf of the Partnership from the exposed north bank of Santa Rosa Creek were consistent with the City of Santa Rosa's findings. The results in parts per million (ppm) included total petroleum hydrocarbons as diesel at up to 5,800, motor oil at up to 9,100, total oil & grease at up to 2,400 and lead at up to 2,100. Lead concentrations in some of the samples exceeded the Total Threshold Limit Concentration of 1,000 ppm for hazardous waste characterization. PAHs were also detected.
18. On September 30, 2002, City of Santa Rosa representatives removed portions of the concrete creek floor and conducted soil and water sampling west of Santa Rosa Avenue to evaluate future Prince Memorial Greenway Project design features. Petroleum hydrocarbon and polynuclear aromatic odors were noted in the water beneath the concrete creek floor adjacent to the Site. Regional Water Board staff collected water samples. The analytical results revealed the presence of PAHs including naphthalene at up to 380 parts per billion.
19. On December 18, 2002, Cleanup and Abatement Order No. R1-2002-0115 was issued directing the Dischargers to define the extent of contamination, investigate potential sources of contamination and submit a corrective action plan.
20. On June 4, 2003, the Regional Water Board Executive Officer issued Administrative Civil Liability Complaint No. R1-2003-0072 for violations of Cleanup and Abatement Order No. R1-2002-0015, Task D (failure to complete plume definition work by February 2, 2003), Task E (failure to submit a report containing an adequate work plan to define the extent of contamination by March 6, 2003) and Task G (failure to submit a work plan to investigate additional sources of contamination by February 18, 2003).
21. On May 20, 2004, the Executive Officer required the Dischargers to submit a Corrective Action Plan, as required by Cleanup and Abatement Order No. R1-2002-0115, Task J, within 45-days of May 20, 2004, or by July 6, 2004. The CAP was not submitted on or before July 6, 2004.
22. On July 15, 2004, the Executive Officer notified the Dischargers that they were in violation of Cleanup and Abatement Order No. R1-2004-0115, Task J and that an acceptable Corrective Action Plan was now due. On August 8, 2004, a Corrective Action Plan was submitted on behalf of the Partnership. On September 9, 2004, PG&E submitted comments regarding the CAP indicating that PG&E does not support the analysis and conclusions of the CAP.
23. On October 5, 2004, the Regional Water Board held a public hearing regarding the Dischargers violations of Tasks D, E and G of CAO No. R1-2002-0115. The Regional Water Board adopted Administrative Civil Liability Order No. R1-2004-0033 imposing a \$30,000.00 administrative civil liability for violations of CAO No. R1-2002-0115.
24. Site conditions include the presence of separate phase oil on groundwater extending from Santa Rosa Avenue on the east to beyond the western property boundary. Significant levels of PAHs are present in the northwest corner of the Site inside a 45-foot diameter and a 25-foot deep wooden underground storage tank. Oil impacted soil is present beneath First Street. Numerous subsurface features exist beneath the Site including two

steel underground storage tanks and anomalies that may include former fuel delivery piping.

25. On October 15, 2004, Pacific Gas & Electric Company requested a meeting to discuss the Corrective Action Plan. On November 30, 2004, PG&E submitted a proposed agenda. The meeting was scheduled for January 12, 2005.
26. Prior to the meeting, on December 24, 2004, the Dischargers were notified in a letter that the proposed scope of work including the removal of the two newly discovered steel underground storage tanks, the removal of one previously abandoned-in-place steel underground storage tank, the removal of impacted soil and gas manufacturing waste including the contents of the 45-foot diameter and 25-foot deep wooden underground tank, and the installation of a funnel-and-gate system to treat groundwater and abate the discharge to Santa Rosa Creek was acceptable. However, the CAP document needed modifications and corrections for completeness to be resubmitted within 30-days after December 24, 2004.
27. Prior to the meeting, on January 3, 2005, the Dischargers were provided with a copy of the Draft Cleanup and Abatement Order No. R1-2005-0002 to be discussed at the January 12, 2005 meeting.
28. On January 12, 2005 the meeting was held. PG&E proposed to participate in the development and submittal of a revised CAP. On February 4, 2005, the Executive Officer provided the Dischargers with a written meeting summary and a 45-day period, starting on January 12, 2005, to submit comments regarding the draft CAO. The Executive Officer indicated that all comments would be considered. However, the main provisions of the CAO, including the requirement for source removal would not change, including the removal of product, impacted soil, gas manufacturing waste products, and underground storage tanks.
29. The Regional Water Board Executive Officer issued Cleanup and Abatement Order No. R1-2005-0002 on July 15, 2005. Task D ordered the submittal of an acceptable Corrective Action Plan by August 11, 2005. Task E ordered compliance with Santa Rosa Fire Department regulatory requirements including the submittal of an application to remove two underground storage tanks by August 11, 2005. Task L ordered the submittal of a list of interested party names and addresses by August 11, 2005.
30. A Corrective Action Plan was submitted on behalf of PG&E on August 11, 2005. The proposed remedial action consists of removing shallow accessible soil that could be contacted by intrusive workers, removing two underground storage tanks, institutional controls together with a deed restriction, and monitored natural attenuation with monitoring conducted twice a year for two years.
31. The Executive Officer of the Regional Water Board, in a letter dated March 23, 2006 notified the Dischargers that the CAP Addendum was not acceptable because it did not meet the requirements of Title 23, Section 2725 and the selected scope of work would not protect and restore the beneficial uses of groundwater and surface water.
32. The Dischargers have caused or permitted, cause or permit, or threaten to cause or permit waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance. Continuing discharges are in violation of the Porter-Cologne Water Quality Control Act and provisions of the Water Quality Control Plan for the North Coast Region (Basin Plan).

33. Beneficial uses of areal groundwater include domestic, irrigation, and industrial supply. Beneficial uses of Santa Rosa Creek, a tributary to the Laguna de Santa Rosa and the Russian River are:
- a. municipal and domestic supply
  - b. agricultural supply
  - c. industrial process supply
  - d. groundwater recharge
  - e. navigation
  - f. hydropower generation
  - g. water contact recreation
  - h. non-contact water recreation
  - i. commercial and sport fishing
  - j. warm freshwater habitat
  - k. cold freshwater habitat
  - l. wildlife habitat
  - m. migration of aquatic organisms
  - n. spawning, reproduction, and/or early development.
34. The California Water Code, and regulations and policies developed thereunder, require cleanup and abatement of discharges and threatened discharges of waste to the extent feasible. Cleanup and abatement activities are to provide attainment of background levels of water quality, or the highest water quality that is reasonable if background levels of water quality cannot be restored. Alternative cleanup levels greater than background concentration shall be permitted only if the discharger demonstrates that: it is not feasible to attain background levels; the alternative cleanup levels are consistent with the maximum benefit to the people of the State; alternative cleanup levels will not unreasonably affect present and anticipated beneficial uses of such water; and they will not result in water quality less than prescribed in the Basin Plan and Policies adopted by the State and Regional Water Board.
35. Water quality objectives in the Basin Plan are adopted to ensure protection of the beneficial uses of water. The most stringent water quality objectives for protection of all beneficial uses are selected as the protective water quality criteria. Alternative cleanup and abatement actions must evaluate the feasibility of, at a minimum: (1) cleanup to background levels, (2) cleanup to levels attainable through application of best practicable technology, and (3) cleanup to protective water quality criteria levels. Exhibit 1, attached and made part of this Order, sets out the water quality objectives for ground and surface water.
36. Discharge prohibitions contained in the Basin Plan apply to this site. State Water Resources Control Board Resolution 68-16 (*Statement of Policy With Respect To Maintaining High Quality of Waters in California*) applies to this site. State Water Resources Control Board Resolution 92-49 applies to this site and sets out the *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Section 13304 of the California Water Code*.
37. The Water Quality Control Plan for the North Coast Region (Basin Plan) Resolution 93-59 applies to this site, which states "With respect to all underground petroleum tank cases in this Region, the Regional Water Board's highest priority will be to eliminate pollutant sources through tank removal, free product removal, and removal of contaminated soil to the extent practicable."
38. Pursuant to California Water Code Section 13304, the Dischargers are hereby notified that the Regional Water Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Regional Water Board to investigate

unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Cleanup and Abatement Order.

39. The Regional Water Board will ensure adequate public participation at key steps in the remedial action process, and shall ensure that concurrence with a remedy for cleanup and abatement of the discharges at the site shall comply with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) ("CEQA").
40. The issuance of this Cleanup and Abatement Order is an enforcement action being taken for the protection of the environment and, therefore, is exempt from the provisions of CEQA in accordance with Sections 15308 and 15321, Chapter 3, Title 14 of the California Code of Regulations.
41. Any person affected by this action of the Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Section 13320 of the California Water Code and Title 23, California Code of Regulations, Section 2050. The petition must be received by the State Water Board within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request. In addition to filing a petition with the State Water Board, any person affected by this Order may request the Regional Water Board to reconsider this Order. To be timely, such request must be made within 30 days of the date of this Order. Note that even if reconsideration by the Regional Water Board is sought, filing a petition with the State Water Board within the 30-day period is necessary to preserve the petitioner's legal rights. If the Dischargers choose to appeal the Order, the Dischargers are advised that they must comply with the Order while the appeal is being considered.
42. Failure to comply with the terms of this Order may result in enforcement under the California Water Code. Any person failing to provide technical reports containing information required by this Order by the required date(s) or falsifying any information in the technical reports is, pursuant to California Water Code Section 13268, guilty of a misdemeanor and may be subject to administrative civil liabilities of up to one thousand dollars (\$1,000.00) for each day in which the violation occurs. Any person failing to cleanup or abate threatened or actual discharges as required by this Order is, pursuant to California Water Code Section 13350(e), subject to administrative civil liabilities of up to five thousand dollars (\$5,000.00) per day or ten dollars (\$10) per gallon of waste discharged.
43. This Order in no way limits the authority of the Regional Water Board to institute additional enforcement actions or to require additional investigation and cleanup at the facility consistent with the California Water Code, nor does it limit the authority of the Regional Water Board to enforce any violations outstanding on the previous order, R1-2005-0002. This Order may be revised by the Regional Water Board Executive Officer as additional information becomes available.

THEREFORE, IT IS HEREBY ORDERED that CAO Order No. R1-2005-0002 is rescinded and, pursuant to California Water Code Sections 13267(b) and 13304, the Dischargers shall cleanup and abate the above-described discharge and threatened discharges forthwith according to the following directives of this Order:

#### General Directives

- A. Conduct all investigative work under the direction of a California professional civil engineer or registered geologist experienced in soil and groundwater assessment and remediation. All work plans and reports must be stamped and signed by the licensed professional in responsible charge of the project.

- B. Conduct all engineering work including treatment system design and installation under the direction of a California professional civil engineer.
- C. The Dischargers shall be liable, pursuant to California Water Code Section 13304, to the Regional Water Board for all reasonable costs actually incurred by the Regional Water Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the discharger over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program. Failure to make timely reimbursements will be considered a violation of this Order.

#### Corrective Action

- D. Submit an acceptable Corrective Action Plan to the Regional Water Board and Santa Rosa Fire Department by June 1, 2006. The CAP must include at a minimum:
- 1) A site location map showing site boundaries.
  - 2) A complete assessment of on and off impacts to soil, groundwater and surface water based on the available information and as required by Title 23, Section 2725 (e).
  - 3) A feasibility study that evaluates alternatives for remedying or mitigating the actual or potential adverse effects of the unauthorized release as required by Title 23, Section (f). The feasibility study must:
    - Evaluate alternative cleanup and abatement actions for the elimination of pollutant sources, including underground storage tanks, underground piping associated with the transfer of oil to and within the former gas manufacturing facility, impacted soil around and beneath the former and/or existing underground storage tank systems including tanks and piping, separate phase hydrocarbons in soil, at the soil/groundwater interface and on groundwater, and gas manufacturing waste products buried on and off site. The CAP must identify all potential source areas.
    - The feasibility study must include an assessment of site constraints and alternative efforts that can eliminate and/or minimize constraints to maximize the elimination of pollutant sources.
    - The feasibility study must also include the length of time until project completion, which is the attainment of numerical water quality goals, for the various technically feasible alternatives or combination of alternatives.
    - The feasibility study must evaluate at a minimum: 1) cleanup to background levels, 2) cleanup to levels attainable through application of best practicable technology, and 3) cleanup to water quality criteria levels protective of beneficial uses.
  - 4) Applicable cleanup levels. The applicable cleanup levels are numerical water quality objectives included as Exhibit 1.
- E. The Corrective Action Plan must include a recommended remedy or combination of remedies for the elimination of pollutant sources identified in Task D (3), the protection and restoration of water quality and the beneficial uses of ground and surface water, and a method to permanently abate the discharge of site contaminants including dissolved and

separate phase petroleum hydrocarbons and polynuclear aromatic hydrocarbons beneath the concrete lining and floor of Santa Rosa Creek.

#### Pollutant Sources

- F. Comply with all City of Santa Rosa Fire and Community Development Department regulatory requirements.
- G. Submit applications to the City of Santa Rosa Fire and Community Development Departments for the removal of underground storage tanks, subsurface piping, impacted soil and gas manufacturing waste according to Santa Rosa Fire Department compliance dates and regulatory requirements and no later than June 1, 2006.
- H. Implement the tank system and source removal components of the Corrective Action Plan within 45 days of the issuance of all required permits by the Santa Rosa Fire and Community Development Departments.
- I. Investigate subsurface anomalies identified in the August 13, 2003 Geophysical Survey completed by NORCAL Geophysical Consultants, Inc.
- J. Complete the work identified in Tasks F, G, H and I by October 1, 2006.
- K. Submit an acceptable report for work identified in Tasks F, G, H, I, and J by January 2, 2007.

#### Groundwater Protection and Restoration

- L. The selected remedy or combination of remedies to protect human health and safety and the environment and protect and restore current and potential beneficial uses of water, shall be identified in the CAP. The CAP must include a proposed schedule for items such as cleanup system design, installation, operation and maintenance.

#### Santa Rosa Creek Discharge Abatement

- M. The selected remedy or combination of remedies shall be identified in the CAP. The CAP must include a proposed schedule for items for a creek discharge abatement method including design, installation, operation and maintenance. A proposal to use existing structures such as sheet metal retaining walls and concrete fill must be supported by construction documents for the Prince Memorial Greenway Project signed and stamped by a civil engineer in responsible charge of the work required by this Order.

#### Public Participation

- N. By June 1, 2006, submit a list of interested party names and addresses, including all land and business owners in the area bordered on the south by Santa Rosa Creek, on the east by Santa Rosa Avenue, on the north by Second Street and on the west by B Street. An assessor's parcel map must also be submitted and the list must correlate the land and business owners to the parcel numbers.

#### Additional Work

- O. Complete any additional work deemed reasonably necessary by the Regional Water Board Executive Officer to abate and cleanup the discharge of waste or threatened discharge of waste.

- P. If, for any reason, the Dischargers are unable to perform any activity or submit any documentation in compliance with the work schedule contained in this Order or submitted pursuant to this Order and approved by the Executive Officer, the Dischargers may request in writing, an extension of time as specified. The extension request must be submitted 5 working days in advance of the due date and shall include justification for this delay including the good faith effort performed to achieve compliance with the due date. The extension request shall also include a proposed time schedule with new performance dates for the due date in question and all subsequent dates dependent on the extension. A written extension may be granted for good cause, in which case the Order will be revised accordingly.

Ordered by \_\_\_\_\_

Catherine E. Kuhlman  
Executive Officer

March 27, 2006