



**California Regional Water Quality Control Board  
North Coast Region  
Bob Anderson, Chairman**



**Linda S. Adams**  
*Secretary for Environmental  
Protection*

[www.waterboards.ca.gov/northcoast](http://www.waterboards.ca.gov/northcoast)  
5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403  
Phone: (877) 721-9203 (toll free) • Office: (707) 576-2220 • FAX: (707) 523-0135

**Arnold  
Schwarzenegger**  
*Governor*

**California Regional Water Quality Control Board  
North Coast Region**

**Cleanup and Abatement Order No. R1-2009-0035**

For

**Musa and Suha Awad  
Anita Clark**

**526 Sonoma Avenue  
Santa Rosa  
Sonoma County**

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

1. Musa and Suha Awad own property at 526 Sonoma Avenue (Assessors Parcel Number 010-203-016) in Santa Rosa, California (hereinafter Site). The Awads purchased the Site from Donald and Anita Clark in May 1993, who purchased it from John and Elaine Richter, Clara Gray and Florence Harris in December 1975. The prior owners were Mrs. Florence Harris and Mrs. Otilie Richter who purchased the property from John and Caroline Bingman in June 1974. It is reported that the Bingman's land ownership dates back to the 1950's.
2. Historical records show that a dry cleaning facility operated at the Site beginning in approximately 1954 as Economy Empire Cleaners, operated by Walter Cawest, Edward Wilkes and Gerald White. In the early 1960s, Delmer Mohr became the business owner and operated the facility for approximately 30-years. The cleaning equipment consisted of a transfer wet-to-dry machine, and the dry cleaning chemical was tetrachloroethylene (PCE).
3. Musa and Suha Awad purchased the business from Delmer Mohr in February 1992 and approximately six months later in August 1992, the Awads installed new dry-to-dry closed loop cleaning equipment. The business was sold in August 2000 and continues to operate using PCE as the cleaning solvent.
4. The Site is bordered on the north by Sonoma Avenue, the PG&E substation property and the Boyett Petroleum site (former gasoline station); on the west by predominantly residential properties; on the south by Julliard Park; and on the east by the Clark's Auto Parts site (former gasoline station) and Santa Rosa Avenue. Land uses in the vicinity of the Site are a mix of commercial and

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residential. Santa Rosa Creek is located approximately 300 feet to the north and a water supply well is located approximately 225 feet to the west. A site location map is included as Attachment A.

5. The chemical PCE is a potential human carcinogen, and is listed by the State of California pursuant to the Safe Drinking Water and Toxic Enforcement Act of 1986 as a chemical known to the State to cause cancer. PCE degrades to trichloroethylene (TCE), cis-1,2-Dichloroethylene (DCE) and vinyl chloride (VC). These breakdown products are also potential human carcinogens.
6. Wastes generated during the dry cleaning process include cooling water, condensate water, spent filters and sludge (dirt and lint). The Central Valley Regional Water Quality Control Board conducted a study of wastes from dry cleaners as part of the State Water Resources Control Board Well Investigation Program<sup>1</sup>. Sampling and analysis of cooling water and condensates was conducted. The chemical PCE was present in condensate fluids at up to 30 percent pure solvent, with an average concentration of dissolved PCE at 151,800 parts per billion (ppb). Cooling water discharges contained PCE concentrations in a range of 3.0 to 4,000 ppb. The study conducted by the Central Valley Regional Water Quality Control Board evaluated dry cleaning processes, which included the type of processes used at the Empire Cleaners. In addition, spent filters and sludge also contain PCE.
7. Discharges of PCE to soil and groundwater at dry cleaning facilities can occur through various mechanisms including:
  - Faulty dry cleaning equipment;
  - Improper installation and operation of dry cleaning equipment;
  - Transfer equipment (wet to dry);
  - Faulty utility lines and/or connections;
  - Spills and leaks;
  - Waste disposal practices including disposal of spent filters and sludge in refuse receptacles and/or disposal of liquid waste to sewer laterals and/or land;
  - Poor housekeeping practices; and
  - Floor cracks and/or floor drains.
8. Dry cleaning plants prior to the early/mid 1980s:
  - Generally operated with transfer wet-to-dry equipment;
  - Operated without local agency regulatory oversight and/or sewer Discharge prohibitions; and
  - Operated without contracts with licensed waste hauling companies.
9. On March 23, 2000, groundwater monitoring wells were installed in Sonoma Avenue to investigate the extent of gasoline and gasoline constituents from a former gasoline station at 203 Santa Rosa Avenue (Clark's Auto Parts). The

- groundwater samples were analyzed and found to contain PCE at 57 ppb, TCE at 170 ppb, Cis-1,2-DCE at 130 ppb and VC at 82 ppb. PCE and its breakdown products have also been detected in groundwater monitoring wells installed on behalf of the Boyett Petroleum site, immediately adjacent to Santa Rosa Creek.
10. Regional Water Board staff conducted a public records search and found that during Delmer Mohr's business operation at the Site, solid wastes were disposed of in the garbage and liquid wastes were discharged to the sanitary sewer via two floor drains (sumps) inside the building. Records for business operators prior to Mr. Mohr were not available.
  11. On November 30, 2000, Regional Water Board staff requested the submittal of a work plan from Anita Clark, and Musa and Suha Awad to investigate the lateral and vertical extent of contamination. A work plan was submitted but not implemented.
  12. On July 29, 2003, Cleanup and Abatement Order No. R1-2003-0089 was issued to Musa and Suha Awad, Anita Clark, and Delmer Mohr. The Order required the submittal of a work plan to define the lateral and vertical extent of contamination, work plan implementation, report submittal, and the preparation and implementation of a final remedial action plan.
  13. A work plan was submitted on October 1, 2003 prepared by *Enviroforensics*. The proposed scope of work included an onsite underground utilities survey, and on and offsite investigative work to identify source areas, define the lateral and vertical extent of contamination, install groundwater monitoring wells, evaluate private water supply wells, and conduct surface water sampling. Prior to Regional Water Board staff concurrence, clarification was requested on January 6, 2004.
  14. The requested clarifications were received on January 30, 2004, and the February 19, 2004 *Addendum to Remedial Investigation Workplan* was submitted on February 19, 2004. The addendum proposed work in a phased approach beginning with an onsite investigation consisting of soil and grab groundwater samples. The document reported the completion of the utility search and video of the private sewer lateral. The video work revealed the presence of a "sag" in the private sewer line beneath the building in the vicinity of the boiler.
  15. On April 23, 2004, Regional Water Board staff required the submittal of a schedule to complete the remaining work. A schedule was submitted on May 17, 2004. However, work has not been conducted according to the proposed schedule.
  16. In July 2004, the Summary of Analytical Results was submitted consisting of maps, the analytical results presented in tables and the certified analytical

- report. The information revealed that the onsite soil borings were drilled in May 2004 and PCE was detected in shallow soil beneath the building at up to 14,000, ug/kg (parts per billion (ppb)). PCE was detected in groundwater at up to 110 ug/l (ppb).
17. On March 8, 2005, Regional Water Board staff met with representatives of *Enviroforensics*. A draft Phase II work plan was presented. The plan included the installation of shallow groundwater monitoring wells and the completion of one Cone Penetrometer Test (CPT). The work plan was deemed unacceptable; one CPT location is insufficient to define the vertical extent of contamination.
  18. On April 18, 2005, A *Notice of Violation* (NOV) was issued for non-compliance with Cleanup and Abatement Order No. R1-2003-0089 including failure to submit a complete report for work described in Finding No. 16. The Regional Water Board Executive Officer required that the report for the onsite work be submitted within 30-days of issuance of the NOV. As of the date of issuance of this Order, the final report has not been submitted.
  19. On June 20, 2005, the Revised Phase II Work Plan prepared by *Enviroforensics* was submitted. Four shallow groundwater monitoring wells and three CPT boring locations were proposed. In a phone conversation on June 23, 2006, with *Enviroforensics* staff, Regional Water Board staff communicated that additional sampling points were necessary to define the vertical and lateral extent of groundwater contamination.
  20. On August 1, 2005, the Revised *Phase II Work Plan* was submitted. The revised plan included two additional off site shallow monitoring wells and two additional CPT locations. Regional Water Board staff concurred with the plan on August 8, 2005. On December 27, 2005, a proposal to revise the CPT test locations was submitted, which was concurred with on that day.
  21. In December 2005, two cone penetrometer tests were completed (CPT1 and CPT2). In January 2006, two monitoring wells were installed (MW-1 and MW-2). In May 2006, two additional monitoring wells (MW-3 and MW-4) were installed and two cone penetrometer tests were completed (CPT3 and CPT4). The off site CPT location adjacent to Santa Rosa Creek was not completed.
  22. The results of the investigation were reported in the August 11, 2006 *Phase II Site Investigation Report and Additional Investigation Work Plan* prepared by *Enviroforensics*. Based on information contained in the record, the shallow groundwater flow direction is to the north/northwest toward Santa Rosa Creek. Detectable levels of PCE, TCE, Cis-1,2-DCE and VC were reported in the monitoring wells at and down gradient of the Site, and adjacent to Santa Rosa Creek. PCE, TCE, Cis-1,2-DCE and VC were also detected in groundwater to a depth of 39 feet below ground surface (bgs). The report included a proposal to conduct a soil vapor study inside the building and collect groundwater samples

from monitoring wells installed for Empire Cleaners, Boyett Petroleum and Clark's Auto Parts.

23. In January 2007, a soil gas survey was conducted at the site including the collection of soil vapor samples at five and ten feet below ground surface in and outside the building, and along the sewer lateral in Sonoma Avenue. The highest concentrations of PCE in soil gas were detected beneath the floor in the vicinity of a floor drain at 57,000 ug/m<sup>3</sup>.
24. On October 7, 2008, the Draft Work Plan for Additional Site Investigation prepared by Northgate Environmental Management, Inc. was submitted. Regional Water Board staff met with representatives of Anita Clark to discuss the draft work plan. A final work plan was requested. The Work Plan for Additional Site Investigation was submitted on January 23, 2009. The work plan was incomplete.
25. The nearest sensitive receptor is Santa Rosa Creek, which is located approximately 300 feet north of the site. The groundwater contaminant plume extends to the creek.
26. Delmer Mohr is deceased. The Regional Water Board currently has no reason to suspect the current business owner is a responsible party. Based on the record compiled by Regional Water Board staff, Musa and Suha Awad, and Anita Clark are herein after referred to as the Dischargers.
27. Additional responsible parties may exist, including past owners and operators. The continued review of the historical record, facts, data, and information may result in additional parties being named as Dischargers, in which case this Order may be revised.
28. The Water Quality Control Plan for the North Coast Region (Basin Plan) designates beneficial uses of the waters of the State, establishes water quality objectives to protect those uses, and establishes implementation policies to implement water quality objectives. The beneficial uses of areal groundwater include domestic, agricultural, and industrial supply.
29. 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
  - o. rare, threatened, or endangered species
30. The Basin Plan includes numeric water quality objectives for groundwater and surface waters, e.g., state drinking water maximum contaminant levels that are incorporated by reference. The Basin Plan also includes a narrative taste and odor water quality objective for groundwater, which states “Groundwater shall not contain taste or odor producing substances at concentrations which cause nuisance or adversely affect beneficial uses.”
31. The applicable water quality objectives in the Basin Plan have been exceeded and constitute pollution, as defined by Water Code Section 13050(l). Where 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, Water Code 13304 gives the Regional Water Board the authority to issue an order to the Discharger to clean up the waste and abate the effects of the discharge.
32. 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. Narrative water quality objectives are interpreted through application of available scientific information and numerical limits are thence derived from such information. A table of water quality objectives for groundwater and surface water is presented in Attachment B and is incorporated in this Order. Attachment B includes those water quality objectives that the Regional Water Board believes are necessary to protect human health and the environment.
33. The State Water Resources Control Board Resolution (State Water Board) has adopted Resolution No. 92-49, “Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304”, setting forth the policies and procedures to be used during an investigation or cleanup of a polluted site and requires that cleanup levels be consistent with State Board Resolution 68-16, the “Statement of Policy with Respect to Maintaining High Quality of Waters in California. Resolution 92-49 requires cleanup and abatement of the effects of discharges in a manner that promotes

attainment of either background water quality levels, or the best water quality which is reasonable if background levels of water quality cannot be restored, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.

34. If the discharger demonstrates that it is not technologically or economically feasible to attain background water quality levels during cleanup of the Site, the Regional Water Board will set alternative cleanup levels after considering the conditions set forth in section 2550.4 of Title 23 of the California Code of Regulations (23 CCR § 2550.4), and determining that the alternative cleanup level: 1) is consistent with the maximum benefit to the people of the state; 2) will not unreasonably affect present and anticipated beneficial use of such water; and 3) will not result in water quality less than that prescribed in the Basin Plan and Policies adopted by the State Water Board, as required by State Water Board Resolution 92-49.
35. Section 13267(b) of the Water Code provides that “in conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including the costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring these reports, the Regional Water Board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”
36. The technical reports required by this Order are necessary to assure compliance with 13304 of the Water Code.
37. 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”).
38. 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 title 14, California Code of Regulations, sections 15308 and 15321.
39. Pursuant to Water Code section 13304, 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.

40. Any person affected by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 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. The appeals process is enclosed as Attachment C.
41. 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 Water Code. This Order may be revised by the Regional Water Board Executive Officer as additional information becomes available.
42. Failure to comply with the terms of this Order may result in enforcement under the 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 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 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.

THEREFORE, IT IS HEREBY ORDERED that, Order No. R1-2003-0089 is hereby rescinded and, pursuant to Water Code Sections 13267 and 13304, the Dischargers shall cleanup and abate the discharge and threatened discharge forthwith and shall comply with the following provisions of this Order:

- A. All work shall be conducted in accordance with all applicable local ordinances and under the direction of a California Professional Geologist or Civil Engineer experienced in soil and groundwater pollution investigations and remediation projects including chlorinated hydrocarbons. All necessary permits shall be obtained prior to conducting work.

- B. Submit a final report for the work conducted in May 2004 by *Enviroforensics* within 60-days of issuance of this Order.

#### Site Assessment

- C. Submit a revised work plan for additional site investigation to define the lateral and vertical extent of soil, soil vapor and groundwater contamination within 60-days of issuance of this Order. The revised work plan must address comments identified in the Regional Water Board staff letter dated May 11, 2009 regarding the December 8, 2008 *Work Plan for Additional Site Investigation*.
- D. Implement the work plan described in Task C within 30 days of the Regional Water Board Executive Officer's concurrence with the plan.
- E. Submit a report of findings for work completed under Tasks C and D within 60-days of work plan implementation. The report shall include an adequate work plan for any additional effort necessary to define the lateral and vertical extent of groundwater contamination.

#### Remedial Action

- F. Submit an acceptable Remedial Action Plan (RAP) within 60 days of the Regional Water Board Executive Officer's determination that Tasks C through E have adequately been completed.
- G. Implement the RAP within 60-days of the Regional Water Board Executive Officer's concurrence with the RAP.
- H. Submit a report of RAP implementation within 60-days of completion.

#### Public Notice and Participation

- I. Implement an acceptable public notice and participation plan where appropriate at the direction of the Regional Water Board Executive Officer.

#### Other

- J. Complete any additional work deemed reasonably necessary by the Regional Water Board's Executive Officer to abate and cleanup the discharge of waste or threatened discharge of waste, and to protect human health and the environment.
- K. 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. The extension request

must be submitted a minimum of five business days in advance of the due date sought to be extended and shall include justification for the delay, and a demonstration of a good faith effort to achieve compliance with the due date. The extension request shall also include a proposed time schedule with a new performance date for the due date in question and all subsequent dates dependent on the extension. An extension may be granted for good cause by written concurrence from the Executive Officer.

- L. Violations of any of the terms and conditions of this Order will subject Dischargers to possible enforcement action, including civil liability under applicable provisions of the Water Code.

Ordered By: \_\_\_\_\_

Catherine Kuhlman  
Executive Officer  
May 11, 2009

<sup>1</sup> Dry Cleaners – A Major Source of PCE in Ground Water, March 27, 1992, Victor J. Izzo, Central Valley Regional Water Quality Control Board

Attachment A: Site Location Map  
Attachment B: Water Quality Objectives  
Attachment C: Appeals Process