

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF MARCH 20-21, 2008
Prepared on February 14, 2008

ITEM NUMBER: 26

SUBJECT: Former Mission Linen Supply / Ambassador Laundry,
201 East Haley Street, Santa Barbara, Santa Barbara
County, Waiver of Waste Discharge Requirements

KEY INFORMATION

Project Area: 235 East Haley Street, Santa Barbara – 0.12 acres
Treatment Method: Injection of Activated Carbon and Zero-Valent Iron (ZVI)
Volume of Discharge: 7,200 pounds of activated carbon and ZVI
Groundwater Contaminant: Tetrachloroethylene and other Volatile Organic
Compounds
Responsible Parties: Mission Linen Supply
Existing Orders: Cleanup and Abatement Order Order No. 88-89,
Monitoring and Reporting Program Order No. R3-2006-
0065

This Action: **Approve Conditional Waiver of Waste Discharge
Requirements No. R3-2008-0027**

SUMMARY

Central Coast Water Board staff recommends adoption of the proposed Conditional Waiver of Waste Discharge Requirements Resolution No. R3-2008-0027 (Attachment 1). Adoption of this Resolution will enable Mission to expedite its groundwater cleanup beneath the property located at 235 East Haley Street and restore local groundwater quality. Mission proposes to inject activated carbon and Zero-Valent Iron (ZVI) to reduce Tetrachloroethylene (PCE) and other Volatile Organic Compounds (VOCs) in groundwater. The Central Coast Water Board considers the injection of activated carbon and ZVI into groundwater a "discharge" in accordance with the California Water Code; therefore, regulation by the Central Coast Water Board is necessary. Central Coast Water Board staff recommend a waiver of waste discharge requirements because the proposed project is considered to be in the public's interest, and the project, when conducted in conformance with the proposed conditions of this waiver, will not pose a significant threat to water quality.

DISCUSSION

Site History

The subject site is located at 201 East Haley Street in Santa Barbara at the north corner of Haley and Santa Barbara Streets (Attachment 2). Mission Linen Supply (Mission) performed limited dry cleaning operations at the site, then known as the Ambassador Laundry, until 1988 when dry cleaning operations ceased. Mission demolished the facility structures in 1996-1997 and the property has been vacant since that time. During the period when dry cleaning was performed at the site, one or more releases of tetrachloroethene (PCE) to the subsurface occurred surrounding the facility and ultimately into shallow groundwater.

Summary of Characterization and Cleanup Activities To Date

Monitoring data indicates that groundwater contains PCE and daughter products beneath the 201 East Haley Street property and several neighboring properties located to the northeast (including 235 East Haley Street). The PCE waste plume extends up to 660 feet (in the shallow water-bearing zone) terminating near the intersection of Haley and Garden Streets in the direction of groundwater flow.

In April 1988, the Executive Officer issued Cleanup and Abatement (CAO) Order No. 88-89. CAO Order No. 88-89 requires abandonment of an onsite supply well, characterization and remediation of groundwater with VOC wastes beneath the site and surrounding area, and a schedule for completing these activities.

In response to CAO Order No. 88-89 and a request for a Corrective Action Work Plan, Mission performed a number of cleanup activities including:

- Abandonment of the onsite supply well,
- Characterization of waste discharges to the shallow zone (Shallow Zones 1 through 5) and the upper producing zone;
- Construction and operation of a groundwater extraction and treatment system;
- Construction and operation of a soil vapor extraction and treatment system;
- Implementation of a three-phase in-situ remediation program using chemical chemical oxidation for source removal; and
- Bioremediation field pilot testing using emulsified oil substrate to evaluate the ability of microbes and indigenous bacteria to remove remaining dissolved PCE in groundwater and associated daughter products from groundwater.

Proposed Cleanup Activities

Mission proposes to inject non-hazardous activated carbon and zero-valent iron (ZVI) into shallow groundwater at 235 East Haley Street, a property near the downgradient extent of the waste plume where relatively high concentrations of PCE remain (Attachment 3). Mission will inject the activated carbon and ZVI into the subsurface to create an in-situ chemical reduction zone. As groundwater with PCE and PCE-daughter products come into contact with the iron, oxidation/reduction reactions occur where electrons from iron oxidation reduce chlorinated solvents by sequential release of chlorine atoms (reductive dechlorination). The activated carbon acts to trap the PCE and daughter products while treatment by in-situ chemical

reduction occurs. Central Coast Water Board staff anticipated that there will be sufficient residence time for complete degradation of PCE and its daughter products to the innocuous compounds, ethene and ethane. Mission will be required to evaluate the effect of this cleanup technology on groundwater quality under proposed Monitoring and Reporting Program No. R3-2008-0027 (Attachment 4).

COMPLIANCE HISTORY

Over the past 19 years since Central Coast Water Board staff provided regulatory oversight, Mission has complied with all Central Coast Water Board directives issued.

PUBLIC NOTICE

Prior to injecting activated carbon and ZVI at 235 East Haley Street, Central Coast Water Board staff prepared the attached public notice (Attachment 5). On February 21, 2008, Water Board staff mailed the public notice to all neighbors located within 500 feet of the property located at 235 East Haley Street, inviting all interested parties to submit comments on the proposed waiver.

RECOMMENDATION

Central Coast Water Board staff recommends adoption of Resolution No. R3-2008-0027, as proposed.

ATTACHMENTS

1. Proposed Conditional Waiver of Waste Discharge Requirements No. R3-2008-0027
2. Location of Ambassador Laundry Site
3. Property Location Map, 235 E. Haley Street
4. Proposed Monitoring and Reporting Program No. R3-2008-0027
5. Public Notice

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