

PROJECT SNAPSHOT

Remediation at the Terminal One Tank Farm in San Francisco Bay

TCH

Location: Richmond, CA

Client: City of Richmond

Contamination: PCE, TCE, cis-1,2 DCE, and vinyl chloride

Volume: 6,700 cy

Goal: Meet specific goals for each contaminant of concern

Number of Heaters: 138

Duration: 3.5 months of operation

Mass Removed: 5,600 lbs.

WHAT MAKES THIS PROJECT UNIQUE?

This project was unique because the site was located in the beautiful San Francisco Bay adjacent to a marina. The City of Richmond's 14-acre site, known as the former Terminal One, was operated as a shipping and bulk storage terminal. The focus of the TCH effort was the former tank farm within the southwestern portion of the site and the adjacent warehouse, referred to as the Southwestern Tank Farm Area. The project site was slated to become a recreational area as part of a 250 unit residential community after cleanup was completed.

Important Project Details

- **Approach:** 138 heater wells were laid out on a 12 feet spacing hexagonal grid. Granular activated carbon and potassium permanganate for off-gas treatment was used to treat the vapor stream.
- **Challenges:** A small portion (~1,400 ft²) of the target treatment zone (TTZ) was underneath a 90,000 ft² warehouse built on concrete pilings. The warehouse was not demolished until after the remediation part was complete so TerraTherm installed wells inside the warehouse to treat the soil below the building.
- **Results:** Soil concentrations of PCE were reduced from 2,700 mg/kg to 0.012 mg/kg which is more than 99.99%. Similar effectiveness was documented for TCE, cis-1,2 DCE, and vinyl chloride. All goals were met on time and within budget.



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