



Commercial Project Centerville Beach

Project Type: PCB Spill Area

Project Location: Naval Facility, Ferndale, CA

Project Owner: U.S. Navy

Consultant: Tetra Tech EM, Inc. (TTEMI)

Time Frame: September - December 1998

Site Information: A thirty-acre military base used for oceanographic research and undersea surveillance. Site was decommissioned in 1993.

CoCs: PCB – Aroclor 1254 - contamination ranging from 0.15 ppm to 860 ppm; PCDD/Fs – up to 3.2 ppb 2,3,7,8-TCDD Toxicity Equivalents (TEQ).

Soil Characteristics: Silty and clayey colluvial soils

Groundwater: Groundwater encountered at depths greater than 60 feet.

Project Description: Remediation of approximately 1000 cubic yards of PCB-contaminated soils under/adjacent to a former transformer/diesel generator building. The contamination under the building was from 2.0-15 feet below ground surface (bgs). PCBs outside the building occurred from 5-15 feet bgs.

Site Dimensions: One area measuring 40 x 30 x 15 feet deep.

Cleanup Goal: Average PCB concentration of 1 ppm or lower;
Dioxins and Furans: Total 2,3,7,8-TCDD TEQ < 1.0 ppb.

Project Approach: Project approach is based on thermal well technology: Heater-Only and Heater-Vacuum Wells in hexagonal pattern with 6.0 foot spacing.

Operations: Mid-September 1998 – TESI mobilized construction supervisors to project site, utilizing local labor for construction and site setup. Dedicated construction group installed thermal technology, piping, and electrical system. October – TESI mobilized equipment specialists for remedial phase activities. Mid-October – startup of equipment, performed system checks, and monitored daily system operations. 11/5/98 to 1/15/99 – soil heating conducted at full power to thermal wells. Interim sampling conducted and soil heating shutdown 2/26/99. Final Confirmation sampling conducted in early April 1999 by TTEMI.

Project Results Target treatment area achieved the remedial objectives for all samples.

