



Environmental

Brownfield Redevelopment

Client
US Navy

Location
North Charleston, SC, USA

Charleston Naval Complex Environmental Remediation

- Brownfield redevelopment project with a vision for mixed-use redevelopment parcels to limit environmental liability and reduce site remediation costs
- RCRA site closure and remediation
- Partnering with State and U.S. Environmental Protection Agency (EPA) regulatory agencies to form a focused, results-oriented team with a common vision for site closure



In February 2000, the U.S. Navy's Southern Division Naval Facilities Engineering Command selected CH2M HILL and LLC partner J.A. Jones Construction for a \$28.8-million insured fixed-price contract for the environmental cleanup of the U.S. Navy's former base and shipyard in North Charleston, South Carolina. The contract's objective is to perform those actions necessary to make all real property and facilities at the Charleston Naval Complex (CNC) suitable for deed transfer, to obtain regulatory approval for site close out, and to obtain closure of the facility's RCRA Part B permit.

This unique remediation project is a pilot for an entirely new approach to defense contracting, which is outcome-based and involves the contractor limiting the government's liability and cost while the contractor is held to a guaranteed fixed price for all services delivered. Under the terms of the agreement, CH2M HILL will maintain environmental liability and responsibility for the contract duration of 20 years, up to the contract value less the cost of insurance. Liability beyond the contract value is covered by insurance with a \$65-million aggregate limit and backed by the parent companies.

The scope of work for the CNC project involves the close out of RCRA Corrective Action sites, including completion of RFIs; completion of CMSs, where necessary; and implementation of the selected remedies.

The CNC is located on the west bank of the Cooper River about 5 miles north of Charleston. The shipyard was closed in 1996, and there are no current military operations conducted at the complex. The site encompasses approximately 360 Solid Waste Management Units and Areas of Concern over a 1,600-acre area that has been divided into 10 mixed-use redevelopment parcels of up to several hundred acres each. Actions include the preparation of reports, work plans, O&M plans, property transfer documents, and permit revisions; completion of investigative activities; performance of soil and groundwater remedial designs and remedial actions; closure actions at UST locations; lead-based paint abatement; asbestos containing materials surveys; and the performance of maintenance operations for a period of up to 20 years.

Regulatory Agency Interaction



During the first few months of the contract, CH2M HILL engaged in extensive partnering efforts to build a teaming relationship with the South Carolina Department of Health and Environmental Control (SCDHEC), the EPA, and the Navy. We have formed a positive results-oriented partnership that fosters communication so that we can integrate our thinking and work together to bring the facility to closure. Immense value has been realized by working within this partnered relationship and maintaining a high level of interaction with the Navy and the regulators. A multi-tiered conflict resolution structure was developed to expedite decision making. The relationship allows ample opportunity for the SCDHEC to review and concur on planning, design, construction, or operational issues before concepts are finalized, resulting in quicker site closures, RCRA permit closure, and property transfer.

Sites are addressed as prioritized in a Cooperative Agreement, prepared by the SCDHEC and the Navy, which outlines specific documents to be submitted each year under the project, and sets forth the anticipated submittal date of each document. The agreement reflects priorities expressed by the SCDHEC for competing RFIs, and objectives of the Navy and CH2M HILL for progressing with remedial planning and implementation.

SCDHEC, EPA, and CH2M HILL work together to maximize the quality of each report so that reviews do not take more time than is required, thereby meeting SCDHEC's expectations for the content and quality. This allows resolution of comments to proceed as expeditiously as possible.

Financial Risk Reduction

Financial risk reduction was accomplished through several mechanisms. First, the project was bid for a fixed price of \$28.8 million, a figure below the Navy's facility cleanup estimate. This price was backed by payment and performance bonds. CH2M HILL assumed the financial risk of the project's overall cost, including RCRA documentation and remedy selection, design, construction, and operation of the long term remedies.

Second, in addition to the normal insurance coverage, CH2M HILL supplied both stop loss and Environmental Liability (EIL) insurance packages, provided by Zurich America. The stop loss package is for \$65 million in coverage and takes effect when we reach our cost ceiling. Overruns, which may include overruns of estimates of known contaminants of concern, regulatory changes, consultant errors and omissions, or remedy failure, would then be covered by the insurance. The EIL policy or Environmental Liability Policy is for \$65 million per claim and \$65 million aggregate, and covers cleanup of unknown contamination, tenant business interruption caused by the contractor, clean up costs for additional known contaminants after transfer, and natural resource damage caused by the contractor. This policy is effective for 20 years. Both of these policies name the Navy as an additional insured party.