

Los Alamos National Laboratory D4 Planning Support Services

Location:	Client:	Duration:	Scope:
Los Alamos National Laboratory (LLNL) Livermore, California	University of California	December 2005 to September 2008	Broad-Based Deactivation, Decon, Decommissioning, and Demolition Project Planning and Development

In March 2005, key members of REIN staff provided deactivation, decontamination, decommissioning, and demolition (D4) planning support to Los Alamos National Laboratory (LANL) through the Environmental Characterization and Remediation Group (ENV-ECR) as part of the CD-0/1 baseline development for Technical Area (TA)-21. The planning activities encompassed over 20 primary process and support buildings and structures. TA-21 was one of LANL's earliest chemistry research areas. With origins during the wartime "Manhattan Project", this distinct complex of laboratory and support facilities was the location of research and development activities directly related to the production and testing of the earliest Cold War atomic devices contaminated with plutonium and tritium. The planning support effort included review of existing planning documentation for feasibility of implementation of work packages and sequence, preparation of logic-linked and resource-loaded schedules in Primavera Project (P3), and development and application of cost estimate parametric models for 37 common D4 activities. The LANL CD-0/1 estimate was reviewed by the DOE Independent Cost Estimating (ICE) Team in August 2005. Their comments indicated that the D4 estimate was one of the most detailed and complete cost estimates they had reviewed in the DOE complex.

As a result, a one-year contract with two optional one-year extensions was awarded in December 2005 to continue supporting LANL ENV-ECR in planning the D4 activities for TA-21. The scope of work included:

- Utility Deactivation Planning - Review and validation of TA-21 Utilities Survey and Geographic Information System (GIS) Layer, identification of existing active and inactive building utility systems, validation of utilities identified against actual field conditions and available as-built drawings, and review and validation of TA-21 wide Utilities Survey and GIS Layer.
- Transportation and Waste Planning - Material flow analyses for all TA-21 remediation and D4 activities, identification of primary and secondary transportation routes, identification of waste streams, analysis of disposal optimization, and estimation of waste quantities.
- Cost Estimating and Scheduling/Critical Decision (CD-2) Package Preparation - Update of waste quantities estimates using additional characterization data; update of existing parametric cost models; providing appropriate basis and justification for labor, equipment, material, and subcontractor rates used in development of the parametric cost models; identification and recommendation of end states and assistance in negotiation for end states and cleanup criteria.
- Acquisition, Procurement, and Solicitation Planning - Assistance in the development of subcontractor statements of work for the D4 activities for buildings and structures.
- D4 Operational Planning - Development of D4 Operational (Project Execution) Plan for buildings and structures. The plan incorporates historical site information and building and sub-slab investigation data and provides the general requirements for field execution of the D4 tasks.
- Value Engineering - Provided a certified value engineer to execute the value added (VA) and value engineering (VE) procedures and developed incentives for field activities that the D4 subcontractor will perform.

