PROJECT OVERVIEW: Lawrence Livermore National Lab. Building 222 D&D Planning

Project Location:

Lawrence Livermore National Laboratory

Livermore, California

Client:

University of California

Project Scope:

Project Development for Building 222 Deactivation, Decontamination, Decommissioning, & Demolition

Period of Performance:

July 2002 to November 2002

MOTA recently completed a contract with the LLNL Space Action Team (SAT) for D&D Planning Support for Building 222. MOTA's scope of work for this project included performing detailed historical assessments, developing historical operations hazards maps, sampling and analysis plans, and project execution plans for both the center and north wings of Building 222. Each of these items is discussed further below. Building 222 was the primary chemistry and material science facility at LLNL until its closure in the mid-1990s. The building is contaminated with a mix of hazardous, radioactive, and mixed wastes and is the largest LLNL structure slated for demolition. The project is being performed in three separate increments: South Wing, Center Wing, and North Wing. Major deliverables for this project included:

- Historical Assessment - Systematic project planning methods were utilized during the entire project planning process. The LLNL SAT initiated the project planning effort by collecting and cataloging Building 222 historical information from document and drawing archives and assembling and organizing that information into files. All of the information contained in the files was reviewed by MOTA project planning staff. In parallel with the historical record review, former Building 222 employees and retirees were interviewed to collect first-hand information about Building 222 and verify or clarify information gathered from existing historical records. A standard set of interview questions was developed by the LLNL SAT and formed the framework for performance of the interviews.
- Historical Operations Hazards Maps - Historical Operations Hazards Maps were created for both the center and north wings of Building 222. The historical operation hazards maps graphically depict historical operations performed in specific areas of Building 222 and identify potential chemical and radiological contaminants in specific areas. The Historical Operations Hazards Maps are used as planning tools to focus subsequent characterization efforts and are also used to communicate potential hazards to workers, prior to entry.
- Sampling and Analysis Plans - The primary purpose of the Sampling and Analysis plans were to outline the characterization methods and strategies to be used to locate, identify, and quantify contamination within Building 222. This included characterization of the building structure, systems, and installed equipment.
- Project Execution Plans - The Project Execution Plans (PEPs) provided the LLNL SAT and other project stakeholders with a detailed scope of work, technical approach, baseline schedule, and cost estimate for the D&D of Building 222 Center and North Wings. The PEPs outline and identify the project scope and technical approach for accomplishing the defined scope of work. The PEPs are provided to project team members and can be used to indoctrinate new project team members or even a new project manager with the ability to start at any phase of the project and continue to perform the project's activities in a consistent manner. The PEPs were developed using a systematic process project plan development approach used by MOTA on all turn-key projects it performs. The process starts with the historical assessment described above, a detailed work breakdown structure (WBS), and logic network are developed. The WBS organizes all of the project elements into deliverable-oriented groupings and defines the total project scope. Each descending level of the WBS represents an increasingly detailed definition of a project element. Project elements defined as work packages represent the level at which the project is planned. Details provided in the work packages form the basis for development of the project schedule and cost estimate and the logic network identifies the predecessor/successor relationships for project activities and are used to develop the logic ties input into the schedule.

Project Performance Features:

- Development of comprehensive project plans for a facility contaminated with radionuclides, chemicals, and high explosives.
- Development of integrated cost estimates and schedules.
- Project completed on schedule and on budget.

MOTA

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