

EXECUTIVE SUMMARY

The National Nuclear Security Administration (NNSA)¹ has assigned a continuing role to Los Alamos National Laboratory (LANL) in carrying out NNSA's national security mission. To enable LANL to continue this enduring responsibility requires that NNSA maintain the capabilities and capacities required in support of its national mission assignments at LANL. These assignments include maintaining core intellectual and technical competencies in nuclear weapons and a safe, and reliable, national nuclear weapons stockpile. The NNSA fulfills this commitment through the Stockpile Stewardship Program. LANL's Dynamic Experimentation Division's (DX) primary function is nuclear stockpile stewardship, with certification responsibility for the substantial majority of the nation's active nuclear weapons stockpile. DX's stockpile stewardship activities currently involve facilities primarily located in buildings and structures at Technical Area (TA) 6, TA-8, TA-9, TA-14, TA-15, TA-22, TA-36, TA-39, TA-40, and TA-69. Most of these buildings have many identified structural and systemic problems that make it difficult to meet the functional and safety requirements of the operations that these facilities house. Wildfire and traffic safety issues at DX facilities have also been identified. NNSA needs to correct these problems so that the necessary programmatic, management, and support functions housed at LANL can continue to function with a high level of efficiency. Additionally, NNSA also needs to minimize energy and resource consumption and reduce the cost of maintaining operations.

The Proposed Action is to construct and operate offices, laboratories, and shops within the Two-Mile Mesa Complex, located at TA-22, TA-6, and TA-40, where work would be consolidated from other locations at LANL. The Proposed Action would also remove or demolish certain vacated structures that are no longer needed. The Proposed Action includes constructing 15 to 25 new structures over a 10-year time frame to replace about 59 structures currently used for DX operations. These new structures would consist of two to five combination office and laboratory buildings, a Characterization of Highly Energetic Materials laboratory, an Engineering Diagnostic Facility, five Contained Firing Capability buildings and the associated support structures, a High Bay Laboratory, a Detonator Qualification Laboratory, two to four Gas Gun Facility buildings, a Machine Shop, a Classified High Explosives Storage building, and a lecture hall. The Proposed Action would also involve upgrading or constructing new roads, parking, fencing, and utilities within the Two-Mile Mesa Complex, including construction of a new road and security gate to provide access to the DX complex. In addition, when construction is completed, the Two-Mile Mesa Complex would be landscaped. Many existing DX operations, personnel, and support staff would be relocated to the new buildings at the Two-Mile Mesa Complex. Once temporary buildings are vacated, they would be removed from the DX complex and made available for reuse. Permanent buildings that are vacated as part of the Proposed Action are not expected to have future uses and, consequently, this Environmental Assessment analyzes demolition of these structures. If any other use is identified before demolition, additional *National Environmental Policy Act of 1969* compliance reviews would be performed to consider future use of the structures.

¹ The NNSA is a separately organized agency within the United States Department of Energy (DOE) established by the *1999 National Nuclear Security Administration Act* [Title 32 of the *Defense Authorization Act* for Fiscal Year 2000].

The No Action Alternative is also considered. Under this alternative DOE would not construct new buildings for the functions described in the Proposed Action—nor would DOE demolish the buildings that currently contain those functions. Outdoor firing tests would continue to be performed. Environmental advantages of contained firing tests would not be realized. Poor-quality office and laboratory space would continue to be used, and the effectiveness of current staff and the ability to recruit and retain qualified employees would remain problematic. DX operations would continue to be conducted in dispersed facilities; there would be no reduction in the cost of facility maintenance. Aging heating, ventilation, and air conditioning systems and other building components would fail and would be expensive or impossible to repair or replace. Areas of buildings or entire structures that are deemed unsuitable for continuous human occupancy would be abandoned in place. This is not an alternative that meets NNSA's purpose and need for action.

The proposed construction sites would be located within the Two-Mile Mesa Complex area. Some mature trees may need to be removed from areas near the periphery of the complex. No construction would be conducted within a floodplain or a wetland. New construction areas would be sited to avoid adverse effects to cultural resources and sensitive habitat areas. There are several potential release sites at Two-Mile Mesa; however, these areas would be avoided, where possible, or, if affected by the Proposed Action, would be sampled and remediated in accordance with New Mexico Environment Department requirements before construction. The Proposed Action is designed to decrease current traffic congestion in the area. There would be adequate parking for University of California (UC) personnel and construction workers. Construction and demolition wastes would be trucked to a licensed commercial landfill or reused for backfilling. Construction and demolition activities for the proposed Two-Mile Mesa complex would be expected to produce only temporary and localized air emissions. Once construction was complete, operational emissions may decrease due to increased efficiency with more modern equipment and facilities. Consolidation of operations under the Proposed Action would have no effects on visual resources, water quality, or adverse health effects on UC employees or construction workers. None of the buildings to be constructed as part of the Proposed Action would be sited over the geological fault trace or within 50 ft (15 m) of any known active fault. The demolition of various buildings could have an adverse effect on some historical structures that are eligible for the National Register of Historic Places. The importance of these buildings to LANL's history is being assessed. A plan is being developed that will identify research tools to preserve the historical knowledge and features of these structures.

Cumulative effects of the Proposed Action, along with past, present, and reasonably foreseeable actions, on LANL and surrounding lands are anticipated to be negligible. No increases in LANL operations are anticipated as a result of this action.