My View

Transforming the weapons enterprise

The National Nuclear Security Administration announced in December its complexwide preferred alternatives—changes to both work scope and infrastructure at all NNSA sites—that will enable long-term transformation of the nation's nuclear weapons enterprise to one that is smaller and more responsive to the security challenges facing the nation.

We at Los Alamos will play a major role in this transformation, with substantial responsibilities in nuclear weapons design and engineering, supercomputing, plutonium research and development, limited pit manufacturing, and continued consolidation of nuclear facilities to a smaller and more efficient footprint.

The preferred alternative selection reaffirms that Los Alamos is first and foremost a national security scientific laboratory. The selection supports continued interdisciplinary excellence in theory, modeling, and simulation of high energy density systems. It confirms and builds upon the Laboratory's world-leading role in actinide sciences—the study of elements from thorium to lawrencium—and acknowledges our demonstrated success in pit manufacturing.

Los Alamos continues to be critical to stewardship and will now take a lead role in complex transformation. "Because our nuclear weapons stockpile is decreasing, the United States' future deterrent cannot be based on the old Cold War model of the number of weapons," noted NNSA Administrator Tom D'Agostino in his rollout of the transformation plan. "Rather, it must be based on the capability to respond to any national security situation and make weapons only if necessary."

We at Los Alamos are a keystone of this capability. Through the success of stockpile stewardship, we can now lay the groundwork for protecting our nation's security well into the future through agile application of our science and engineering.

Sandra Valdez

Glenn Mara stops by the Chemistry and Metallurgy Research Replacement Project construction site.

Properly executed, complex transformation is good for the long-term viability of the Laboratory and the other NNSA sites. It is responsible stewardship of taxpayer dollars that enhances scientific capability and safety and security and that can further enable stockpile reductions.

In the final analysis, a smaller, more efficient and responsive nuclear weapons enterprise results in cost savings, reductions in the stockpile, and leverage for our scientific and technical expertise to meet the most important national security requirements. Ultimately, our work becomes a more essential element of national security, and our success can help realize the strategy of capability-based deterrence.

Glenn Mara, principal associate director for Nuclear Weapons Programs