LOS ALAMOS NATIONAL LABORATORY (LANL):
NUCLEAR DESIGN AND ENGINEERING AND PLUTONIUM

Complex Transformation – Preferred Alternative

NNSA is moving forward with a vision to achieve a smaller, safer, more secure, and less expensive enterprise that leverages the scientific and technical capabilities of our workforce, and meets national security requirements. The current Complex Transformation Supplemental Programmatic Environmental Impact Statement (SPEIS) effort is a major step in this process, and updates a Programmatic Environmental Impact Statement that is now more than a decade old. Our transformation strategy embraces the notion of modern "centers of excellence" by focusing on core competencies, eliminating redundancies, and maximizing the consolidation of special nuclear materials (SNM).

LOS ALAMOS NATIONAL LABORATORY (LOS ALAMOS, NEW MEXICO)

LANL conducts research, design, and development of nuclear weapons; designs and tests advanced technology concepts; provides safety, security, and reliability assessments and certification of stockpile weapons; maintains production capabilities for limited quantities of plutonium components (i.e., pits) for delivery to the stockpile; manufactures nuclear weapon detonators for the stockpile; conducts tritium research and development (R&D), hydrotesting, high explosives (HE) R&D, and environmental testing; and currently maintains Category I/II quantities of SNM (special nuclear materials that require the highest level of security).

MISSION HIGHLIGHTS

The Los Alamos National Laboratory will be the *Center of Excellence for Nuclear Design and Engineering* and the *Center of Excellence for Plutonium,* and its mission will be enhanced by:

- Supercomputing platform host site;
- Plutonium pit production R&D with TA-55 including a Chemistry & Metallurgy Research Replacement (CMRR), Nuclear Facility;
- Detonator production and contained HE R&D; and
- Materials research with the Matter-Radiation Interaction in Extremes facility as potential science magnet.

TRANSFORMATIONAL CHANGES

The new, modern, efficient, and less expensive *Center of Excellence for Nuclear Design and Engineering* and the *Center of Excellence for Plutonium* will achieve over the next 10 years:

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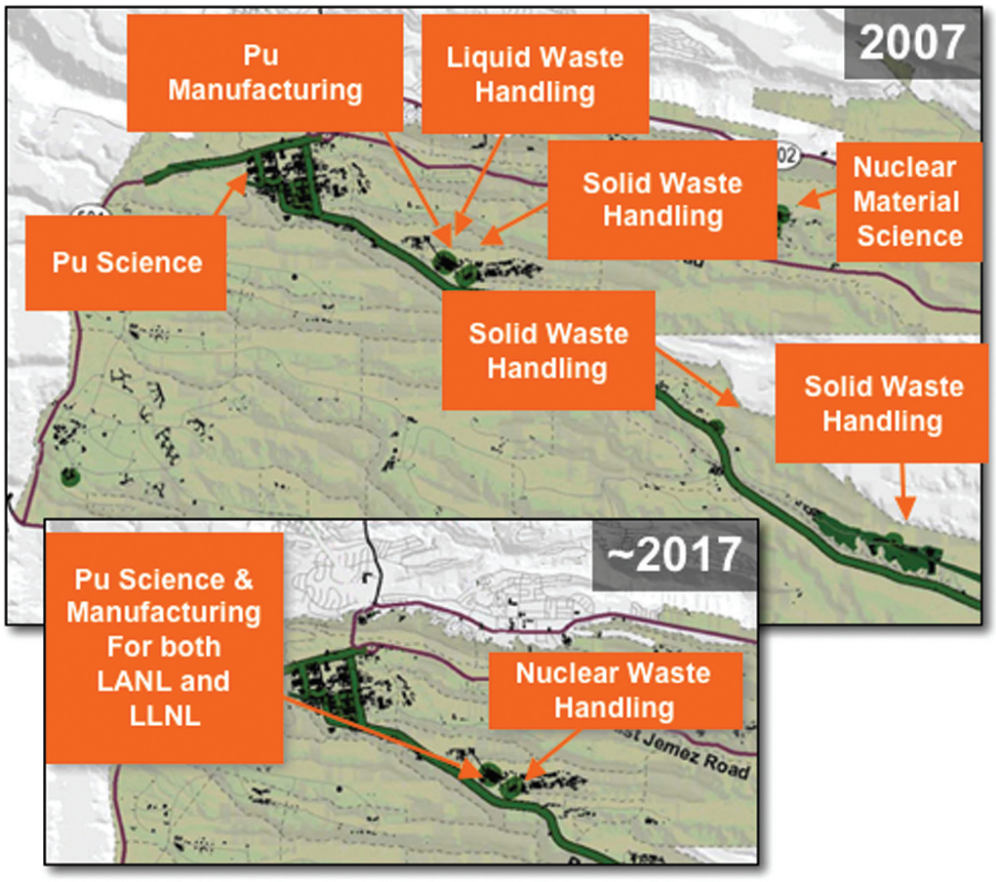
TRANSFORMATIONAL CHANGES (Cont.)

- Special nuclear material consolidation at two sites, with only one requiring CAT I/II levels of security;
- 50% reduction of the nuclear operations footprint;
- 20% reduction of the total building footprint;
- Over a decade or so, up to 20% fewer staff supporting nuclear weapons activities. These reductions are expected through natural attrition and transfer of personnel to other positions supporting essential national security needs.

This graphic shows the proposed reduction of Special Nuclear Material sites at Los Alamos in the future.



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