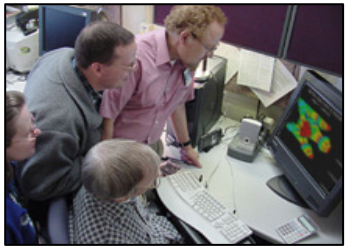


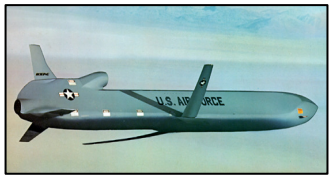
Complex Transformation

presented to the

Decision Makers Forum
Amelia Island, FL

ROBERT L. SMOLEN
Deputy Administrator for
Defense Program
National Nuclear Security Administration
U.S. Department of Energy

October 16, 2008



Complex Transformation Vision & Value Proposition

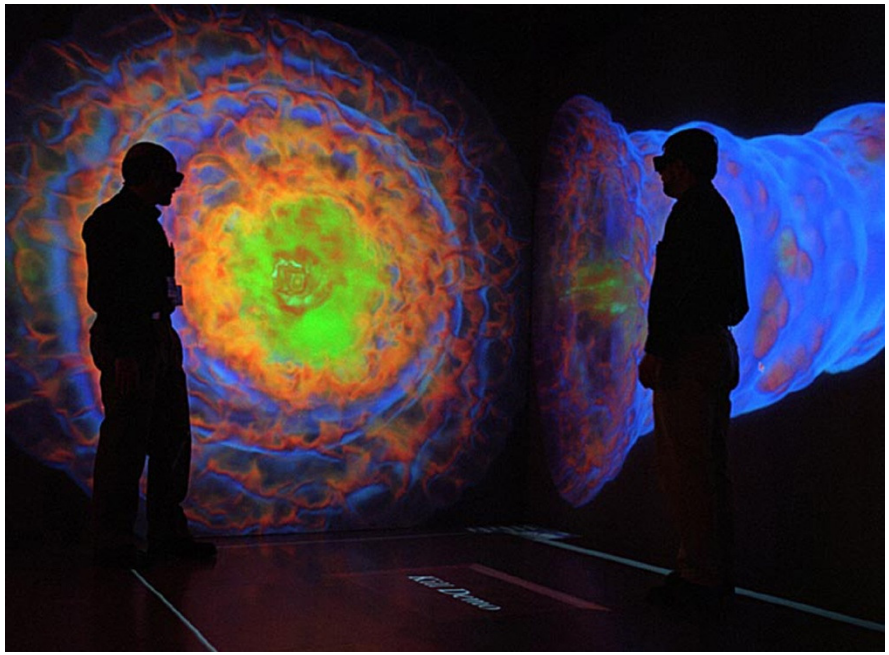
National Nuclear Security Administration

Our Vision:

A smaller, safer, more secure and less expensive enterprise that leverages the scientific and technical capabilities of our workforce, and meets national security requirements.

Our Value Proposition:

We will increase contributions to national security by establishing a responsive nuclear weapons complex infrastructure operating more cost-effectively, thus both sustaining essential nuclear capabilities and enabling more resources to be applied for mission solutions rather than supporting overhead.



Need for Complex Transformation

National Nuclear Security Administration

While we are meeting our requirements today, we remain:

- Expensive
- Overly Hazardous
- Not Responsive Enough
- Site Centric

Future Complex

Over the next 10 years, the NNSA Future Complex will:

- **Meet current Department of Defense requirements and national security needs while achieving a more responsive infrastructure.**

- **Eliminate redundancies and improve efficiencies by consolidating missions and capabilities at 8 sites beginning in 2008 by:**
  - **Consolidating special nuclear materials to 5 sites by the end of 2012, with a smaller footprint within those sites by 2017;**
  - **Closing or transferring from weapons activities about 600 buildings or structures, many by 2010;**
  - **Reducing footprint of buildings and structures supporting weapons missions by more than 9 million square feet, going from greater than 35 million to less than 26 million square feet.**
  - **Over a decade or so, up to 20-30% fewer staff will directly support nuclear weapons activities. These reductions are expected through natural attrition and transfer of personnel to other positions supporting essential national security needs.**
  - **Dismantle weapons at a faster pace.**

Four Pillar of Complex Transformation

National Nuclear Security Administration

1. In partnership with DoD, transform the nuclear stockpile.

2. Transform to a modernized, cost-effective nuclear weapons complex

3. Create a fully integrated and interdependent complex

4. Advance science and technology (S&T) base essential for national security

Transformation Timeline

National Nuclear Security Administration

Nuclear Posture Review

Draft Complex Transformation Supplemental Programmatic Environmental Impact Statement (SPEIS)

Weapons stockpile reduced by more than 50% since 2001 Nuclear Posture Review

SEAB DSB

- **Complex Transformation Final SPEIS – September**
- **Complex Transformation SPEIS ROD - November**

2001 2005 2006 2007 2008 2009 2012 2018

Implement Transformation Plans

Complex Transformation Proposal

1. **Transform the nuclear weapons stockpile**
2. **Transform physical infrastructure**
3. **Employ best business practices**
4. **Advance the science and technology base**

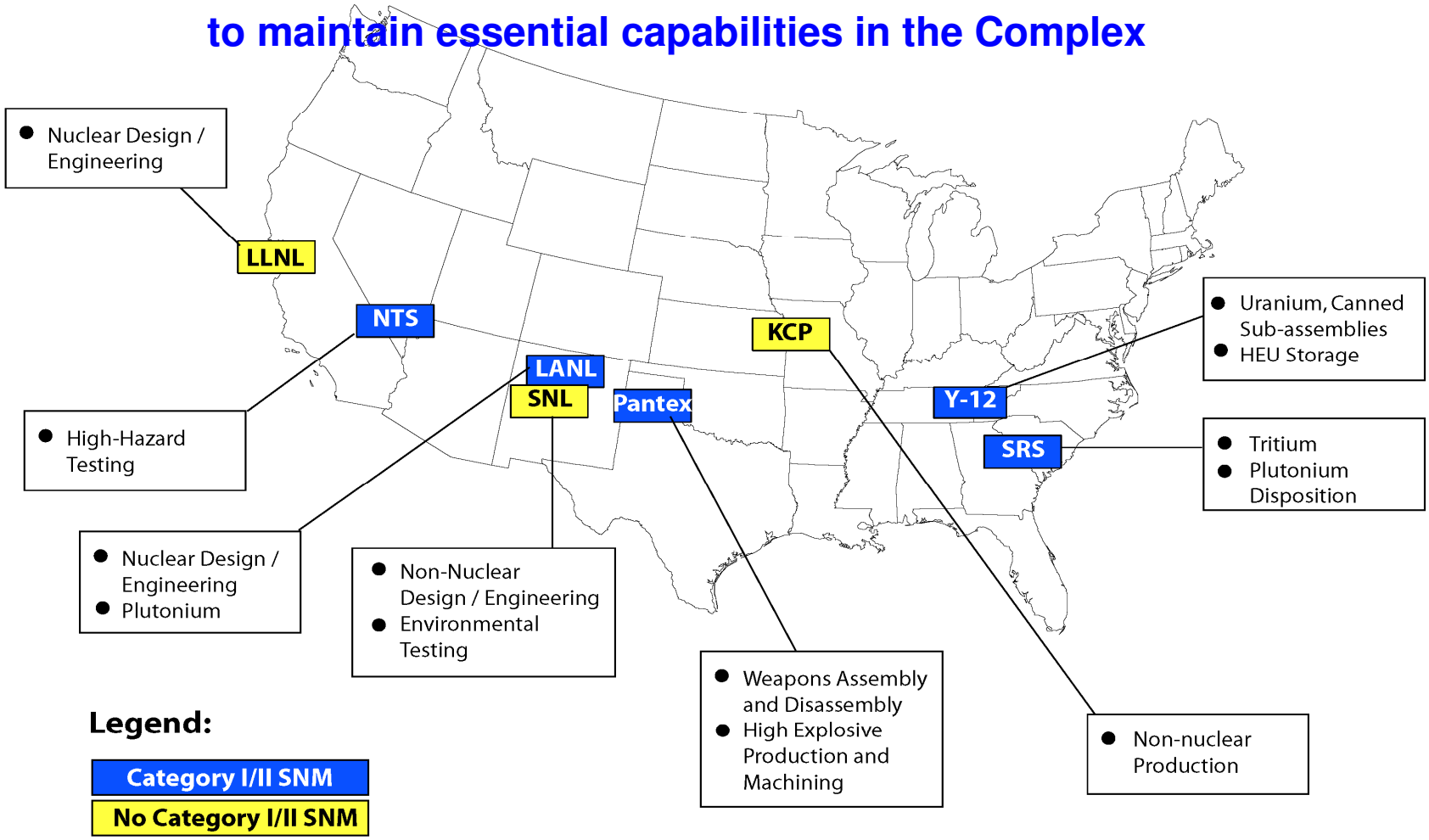
Non- nuclear Transformation

- **Implement SPEIS ROD(s)**
  - **Restructure SNM Facilities**
    - **Plutonium**
    - **Enriched Uranium**
    - **Assembly/Disassembly**
  - **Restructure R&D and Testing Facilities**

Transforming the Physical Infrastructure

National Nuclear Security Administration

Preferred Alternative = Distributed Centers of Excellence to maintain essential capabilities in the Complex



Final SPEIS Proposed Actions

National Nuclear Security Administration

- Restructuring Special Nuclear Material Facilities
  - Plutonium
  - Uranium
  - Weapon Assembly/Disassembly/Surveillance
  - Material Consolidation
- Restructuring R&D and Testing Facilities
  - Flight Testing
  - Major Environmental Testing
  - Tritium Supply Management and R&D
  - Hydro-testing
  - High Explosive Production and R&D

Restructuring SNM Facilities Preferred Alternatives

National Nuclear Security Administration

- **Plutonium manufacturing and R&D**: Los Alamos would provide a consolidated plutonium research, development, and manufacturing capability within TA-55 enabled by construction and operation of the Chemistry and Metallurgy Research Replacement—Nuclear Facility (CMRR-NF). Until completion of a new Nuclear Posture Review in 2009 or later, the net production at Los Alamos would be limited to a maximum of 20 pits per year.

- **Uranium manufacturing and R&D**: Y-12 would continue as the uranium center providing component and canned subassembly production, surveillance and dismantlement. NNSA has completed construction of the HEUMF and will consolidate HEU storage in that facility. NNSA would build a Uranium Processing Facility (UPF) at Y-12 in order to provide a smaller but modern highly-enriched uranium production capability to replace existing 50-year old facilities.

- **Assembly/disassembly/high explosives production and manufacturing**: Pantex would remain the Assembly/Disassembly/High Explosives production and manufacturing center. NNSA would consolidate non-destructive surveillance operations at Pantex.

- **Consolidate Category I/II SNM:** NNSA would continue to transfer Category I/II SNM from LLNL under the No Action Alternative and phase out Category I/II operations at LLNL Superblock by the end of 2012. NNSA would consolidate Category I/II SNM at Pantex within Zone 12, and close Zone 4.

Example: Transforming our Uranium Capabilities at Y-12

National Nuclear Security Administration

Today

Proposed Future

Relies on Completion/Construction of:

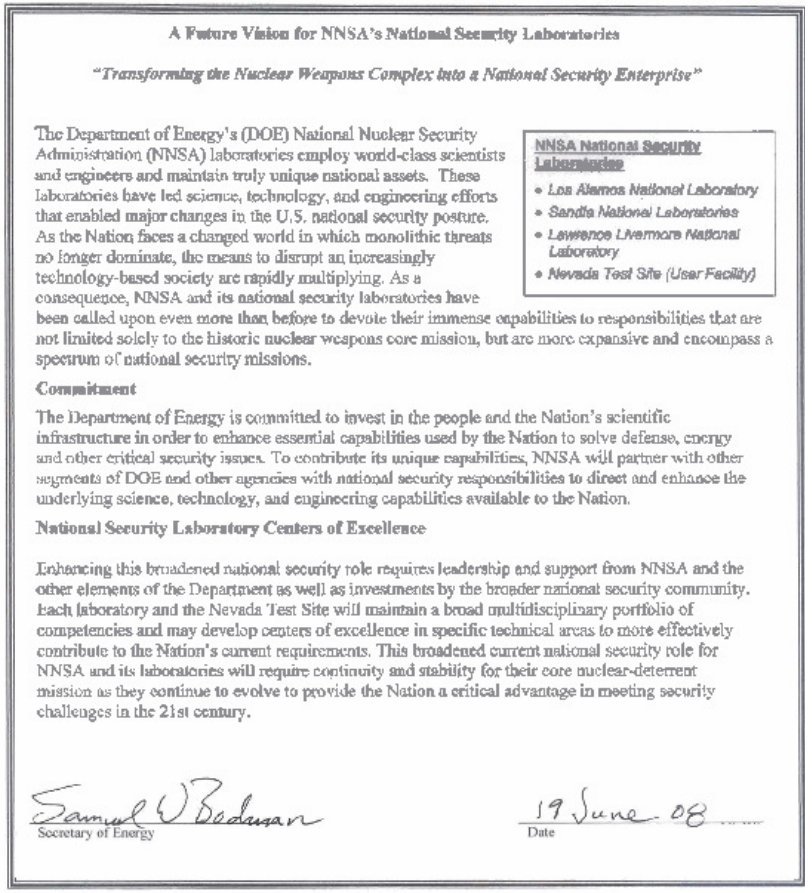
- **High-Enriched Uranium Materials Facility (2008)**
- **Uranium Processing Facility (UPF) for high-enriched uranium components**
- **Construction of Consolidated Manufacturing Center (non-HEU)**
- **Successful Facilities Transition/Disposition Program**

Enhancing S&T: Lab Vision of the Future

National Nuclear Security Administration

The Secretary of Energy recently affirmed the NNSA Administrator's vision for the future of science, technology and engineering within the NNSA national security complex:

"Transforming the Nuclear Weapons Complex into a National Security Enterprise"



A Future Vision for NNSA's National Security Laboratories

"Transforming the Nuclear Weapons Complex into a National Security Enterprise"

The Department of Energy's (DOE) National Nuclear Security Administration (NNSA) laboratories employ world-class scientists and engineers and maintain truly unique national assets. These laboratories have led science, technology, and engineering efforts that enabled major changes in the U.S. national security posture. As the Nation faces a changed world in which monolithic threats no longer dominate, the means to disrupt an increasingly technology-based society are rapidly multiplying. As a consequence, NNSA and its national security laboratories have been called upon even more than before to devote their immense capabilities to responsibilities that are not limited solely to the historic nuclear weapons core mission, but are more expansive and encompass a spectrum of national security missions.

NNSA National Security Laboratories

- *Los Alamos National Laboratory*
- *Sandia National Laboratories*
- *Lawrence Livermore National Laboratory*
- *Nevada Test Site (User Facility)*

Commitment

The Department of Energy is committed to invest in the people and the Nation's scientific infrastructure in order to enhance essential capabilities used by the Nation to solve defense, energy and other critical security issues. To contribute its unique capabilities, NNSA will partner with other segments of DOE and other agencies with national security responsibilities to direct and enhance the underlying science, technology, and engineering capabilities available to the Nation.

National Security Laboratory Centers of Excellence

Enhancing this broadened national security role requires leadership and support from NNSA and the other elements of the Department as well as investments by the broader national security community. Each laboratory and the Nevada Test Site will maintain a broad multidisciplinary portfolio of competencies and may develop centers of excellence in specific technical areas to more effectively contribute to the Nation's current requirements. This broadened current national security role for NNSA and its laboratories will require continuity and stability for their core nuclear-deterrent mission as they continue to evolve to provide the Nation a critical advantage in meeting security challenges in the 21st century.

Samuel W Bodman
Secretary of Energy

19 June 08
Date

Accelerating Complex Transformation

- **Increase nuclear weapons complex performance near- term enabling decreased costs while meeting mission needs, providing transformation funding, and potentially increasing real dollar mission spending.**
  - Utilize "Best Practices" & "Benchmarking"
  - Ensure solid baselines exist to irrefutably measure improvements
  - Ensure benefits of solid performance are realized
- **NNSA recognizes successful ACT Strategy execution can provide:**
  - Enabler to a “National Security Enterprise”
  - Method to assist funding transformation
  - Increased credibility with customers and stakeholders
  - Further integration between and within sites and NNSA
  - An externally recognized world class organization which attracts and retains highly qualified staff