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on the
Nuclear Posture Review
Before the
House Armed Services Committee
April 14, 2010

Thank you Mr. Chairman and members of the Committee. I am pleased to appear before you to discuss the Department of Energy's key elements included in the Administration's Nuclear Posture Review, released on April 6, 2010.

The Nuclear Posture Review (NPR) reaffirms President Obama's commitment to providing the Department of Energy and its National Nuclear Security Administration (NNSA) the resources required to support the President's nuclear security agenda and maintain the safety, security and effectiveness of the U.S. nuclear deterrent without underground testing. The NPR reflects the fact that protecting our nation's nuclear security is an enduring government-wide responsibility. I am proud of the role this Department played in what was the first, truly interagency nuclear posture review in our nation's history.

The NPR lays out five key objectives that provide a comprehensive path forward for implementing the President's nuclear security agenda for reducing nuclear dangers and pursuing the peace and security of a world without nuclear weapons. The five objectives are:

1. Preventing nuclear proliferation and nuclear terrorism;
2. Reducing the role of nuclear weapons;
3. Maintaining strategic deterrence and stability at reduced nuclear force levels;
4. Strengthening regional deterrence and reassurance of U.S. allies and partners; and,
5. Sustaining a safe, secure, and effective nuclear arsenal.

Preventing Nuclear Proliferation and Terrorism

The Department of Energy and the NNSA are actively engaged in direct support of the first objective, **“preventing nuclear proliferation and nuclear terrorism.”** The Department's Fiscal Year (FY) 2011 budget request includes a nearly 26 percent increase

in funding for NNSA's nuclear nonproliferation programs. These programs encompass the first line of defense, second line of defense, and additional programs aimed at securing vulnerable nuclear materials within four years and providing key technical support to prevent proliferation in other nuclear arenas. The most important thing that can be done to keep terrorists from developing and using an improvised nuclear device (IND) or a radiological dispersion device (an RDD or a so-called "dirty bomb") is to prevent them from acquiring nuclear material. The NNSA is accelerating and broadening the scope of its efforts to improve the security of nuclear materials in the United States and globally to achieve the President's priorities first articulated in Prague. Current NNSA programs include:

- Securing nuclear materials, technology, and expertise, including the most vulnerable nuclear materials, worldwide within four years and disposition of excess U.S. and international fissile materials;
- Working with the Office of Nuclear Energy to support the development of a new framework for peaceful nuclear energy to promote civil nuclear power and nonproliferation objectives;
- Strengthening the international safeguards system by developing new safeguards technologies, expertise, policies, concepts, and partnerships;
- Developing an active nuclear and radiological security dialog and cooperation with key domestic and international partners; and,
- Developing highly sensitive and wide-area nuclear materials detection technology.

NNSA programs are also supporting the President's arms control and nonproliferation agenda by using the technical capabilities within the Nuclear Security Enterprise to demonstrate the technical ability to support, monitor, and comply with the Comprehensive Nuclear Test Ban Treaty (CTBT), the Fissile Material Cutoff Treaty (FMCT), and any follow-on arms control requirements.

Managing the U.S. Nuclear Stockpile

The Department of Energy and NNSA are also actively engaged in direct support of the fifth NPR objective, **"sustaining a safe, secure, and effective nuclear arsenal."**

The need to maintain the safety, security and effectiveness of an aging stockpile without resuming nuclear testing has been a bipartisan national policy for nearly 20 years under both Democratic and Republican administrations. As the President said in Prague, we will sustain a safe, secure, and effective nuclear arsenal as long as nuclear weapons exist.

This NPR reflects that commitment and our budget request, if approved, would provide the resources required to make that possible. The NPR is based on several key principles that will guide future U.S. decisions on stockpile management.

- The United States will not conduct nuclear testing, and will seek ratification and entry into force of the Comprehensive Nuclear Test Ban Treaty (CTBT).
- The United States will not develop new nuclear warheads. The NPR makes clear that the United States will only use nuclear components based on previously tested designs, and will not pursue new military missions or provide for new military capabilities for our stockpile.
- The United States will study options for ensuring the safety, security, and effectiveness of nuclear warheads on a case-by-case basis, consistent with the congressionally-mandated Stockpile Management Program. The full range of LEP approaches will be considered: refurbishment of existing warheads, reuse of nuclear components from different warheads, and replacement of nuclear components.
- Finally, in any decision to proceed to engineering development for warhead LEPs, the United States will give strong preference to options for refurbishment or reuse. The NPR makes clear that replacement of nuclear components would be undertaken only if critical Stockpile Management Program goals could not otherwise be met, and if specifically authorized by the President and approved by Congress.

Using these principles, the United States will extend the life of nuclear warheads required for the smaller force structure identified under the follow-on START agreement.

Consistent with this approach, the NPR recommended that:

- The Administration fully fund the ongoing LEP for the W76 submarine-based warhead for a 2017 completion, and the full scope LEP study and follow-on activities for the B61 bomb to ensure first production begins in 2017.
- The Nuclear Weapons Council initiate a study in 2010 of LEP options for the W78 ICBM warhead to be conducted jointly by the NNSA and the Department of Defense. This study will consider, as all future LEP studies will, the possibility of using the resulting warhead also on multiple platforms in order to reduce the number of warhead types.

The NNSA, in close coordination with the DoD, will provide a new stockpile stewardship and management plan to Congress, consistent with the increases in infrastructure investment requested in the President's FY 2011 Budget Request. A more robust and modernized infrastructure will enable the United States to shift away from retaining large numbers of non-deployed warheads as a technical hedge, allowing additional reductions in the U.S. stockpile of non-deployed nuclear weapons.

This consolidated approach will ensure high confidence in the technical performance of warheads retained in the stockpile. It will guarantee that their safety and security are aligned with 21st century requirements (and technical capabilities). This approach sets a high standard for the safety and security of U.S. nuclear weapons and, in support of nonproliferation goals, positions the United States to encourage other nations to maintain the highest levels of surety for their nuclear stockpiles.

Recapitalizing Critical Infrastructure and Renewing Human Capital

The NPR concluded that the Department of Energy needed increased funding to recapitalize the aging infrastructure used to support the stockpile and conduct a full range of nuclear security missions, and to renew our human capital – the critical cadre of scientific, technical, and engineering experts who underpin our stockpile management work and support our nuclear nonproliferation and counterterrorism missions.

In order to sustain a safe, secure, and effective U.S. nuclear stockpile as long as nuclear weapons exist, the United States must possess a modern physical infrastructure – comprised of the national security laboratories and a complex of supporting facilities.

The NPR concluded that the following key investments were required to sustain a safe, secure, and effective nuclear arsenal:

- Strengthening the science, technology, and engineering (ST&E) base needed for conducting weapon system LEPs, maturing advanced technologies to increase weapons surety, qualification of weapon components and certifying weapons without nuclear testing, and providing annual stockpile assessments through weapons surveillance. This includes developing and sustaining high quality scientific staff and supporting computational and experimental capabilities.
- Funding the Chemistry and Metallurgy Research Replacement Project at Los Alamos National Laboratory to replace the existing 50-year old Chemistry and Metallurgy Research facility by 2021.
- Developing a new Uranium Processing Facility at the Y-12 Plant in Oak Ridge, Tennessee to come on line for production operations by 2021. Without an ability to produce uranium components, any plan to sustain the stockpile, as well as support for our naval nuclear propulsion programs, will come to a halt.

More broadly, the Administration supports the needed recapitalization of the nuclear infrastructure through fully funding the NNSA. These nuclear security facilities will be sized to support the requirements of the Stockpile Stewardship Program mandated by Congress and to meet the multiple requirements of dismantling warheads and eliminating material no longer needed for defense purposes, conducting technical surveillance, implementing life extension plans, and supporting naval propulsion requirements.

Increased investments in the nuclear security enterprise are needed to ensure the long-term safety, security, and effectiveness of our nuclear arsenal and to support the full range of nuclear security work to include nonproliferation, nuclear forensics, nuclear counterterrorism, emergency management, intelligence analysis, and treaty verification.

Responsible stockpile management requires not only infrastructure, but also a highly capable workforce with the specialized skills needed to sustain the nuclear deterrent and to support the President's overall nuclear security agenda. Like our physical infrastructure, over the last decade our human capital base has been underfunded and underdeveloped. The decrease in funding for the science and engineering basis of stockpile assessment and management meant that technical issues might remain unresolved and the best and brightest scientists were therefore less attracted to the endeavor. A number of leaders noted that a national consensus on the approach to sustaining warheads, and adequate funding of those challenges, was essential to sustaining our nuclear technical capabilities. The cumulative loss of focus, expertise, and excellence on nuclear matters in the United States remains a significant challenge, but one that we can now address.

The President has now clearly outlined the importance of nuclear issues for our national security, and the importance of keeping the U.S. nuclear deterrent safe, secure, and effective at the minimum numbers required. Further, the Administration's commitment to a clear and long-term plan for managing the stockpile ensures the scientists and engineers of tomorrow will have the opportunity to engage in challenging research and development activities that are essential to their recruitment and retention.

A modern nuclear security infrastructure and highly skilled workforce are also essential to arms control and nonproliferation objectives. For example, by certifying the reliability of each weapon type we retain, the United States can credibly assure non-nuclear allies and partners they need not build their own, while we seek greater stockpile reductions than otherwise possible. We also enhance our ability to assess and render safe potential terrorist nuclear devices and support other national security initiatives, such as nuclear forensics and attribution, and to understand the technical challenges associated with verifying ever deeper arms control reductions, which is critical for managing risks on the path to zero.

Conclusion

We are already implementing the principles in the NPR. For example, the President's FY 2011 Budget Request for NNSA includes \$11.2 billion (a 13% increase from 2010) to manage the stockpile, recapitalize the NNSA infrastructure, and support the full range of nuclear security missions – including NNSA's role in preventing nuclear proliferation, powering the nuclear navy, and promoting effective nuclear counterterrorism capabilities.

This Nuclear Posture Review is an important step toward ending Cold War thinking and adopting a 21st century approach to nuclear weapons and nuclear security issues. The Administration's substantial FY 2011 Budget Request begins the turnaround to this NPR

path. With the Committee's help, we can sustain our nuclear deterrent and enable future arms reductions.