

# Western States Legal Foundation

Information Brief

Spring 2008

## **Nuclear Weapons Forever: The U.S. Plan to Modernize its Nuclear Weapons Complex**

March 19, 2008 marks the fifth anniversary of the U.S. invasion and occupation of Iraq, a war launched on the pretext of ending a nuclear weapons program that did not exist. This Spring, the U.S. Department of Energy is holding hearings and taking public comment on its current plan to modernize the very real laboratories and factories where the U.S. designs, builds, and maintains nuclear weapons. This plan would allow the government to keep thousands of nuclear weapons for many decades to come, and to build thousands more should it choose to do so.

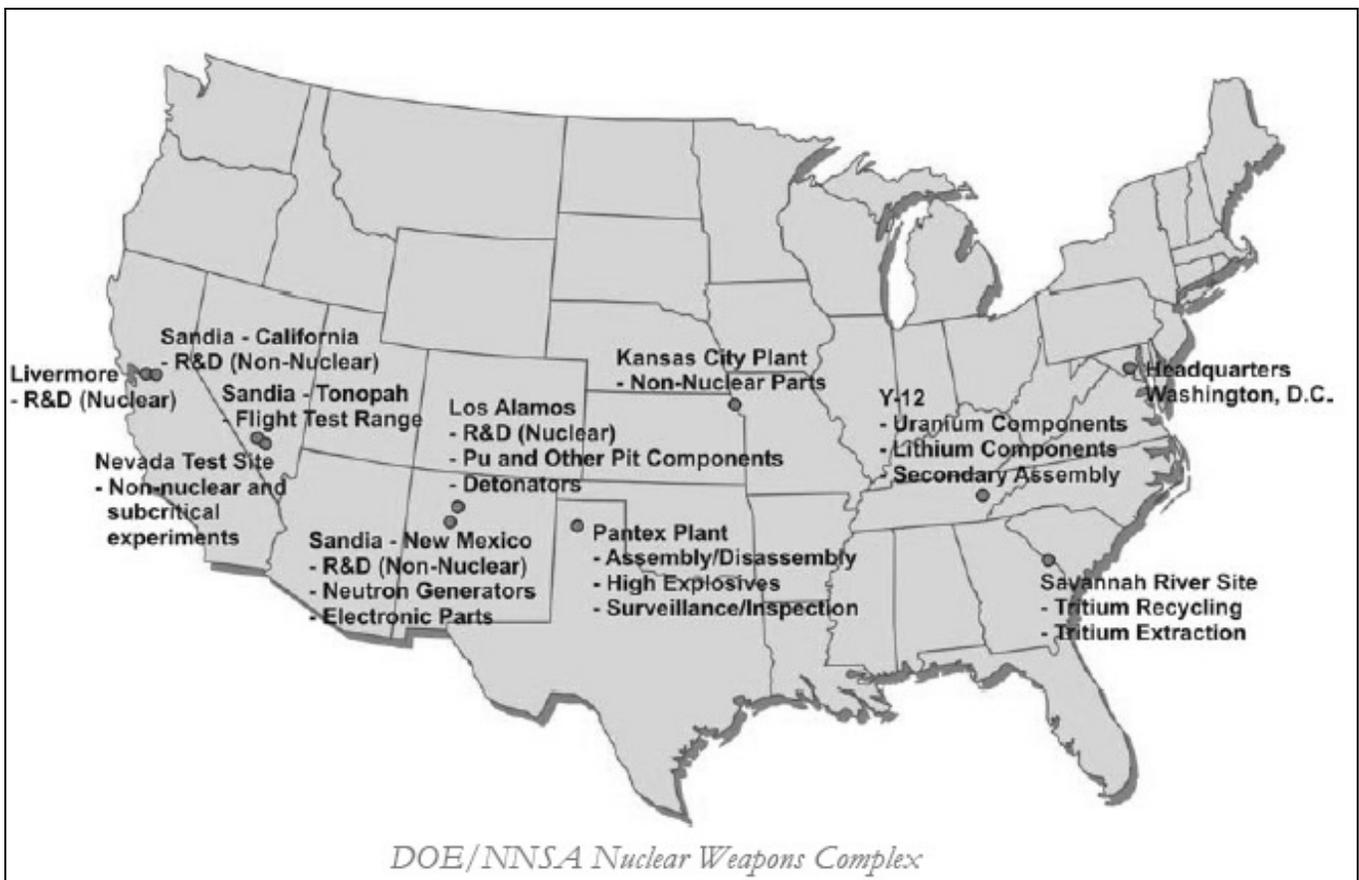
The focus for the public hearings and comment process is an Environmental Impact Statement (EIS) for what now is called “Complex Transformation.” This is the latest label for the ongoing work of rebuilding nuclear weapons research facilities and manufacturing plants worn out and heavily contaminated by the manufacture of tens of thousands of nuclear weapons over more than four decades, starting with the World War II Manhattan Project.

The purpose behind these plans is to retain U.S. dominance in nuclear weapons for the foreseeable future, with the ability to expand production capacity and to design and deploy new kinds of nuclear weapons if desired. The Commander of U.S. Strategic Command, General Kevin Chilton, recently told reporters that “As we look to the future—and I believe we are going to need a nuclear deterrent for this country for the remainder of this century, the 21st century—I think what we need is a modernized nuclear weapon to go with our modernized delivery platforms.”<sup>1</sup> The EIS describes the “Complex Transformation strategy” as requiring “a responsive infrastructure to design, develop, and field new weapon systems if needed.”<sup>2</sup> At the same time, the missiles and aircraft that deliver nuclear weapons to their targets also are being modernized, and new generations of delivery systems are in development. The goal, as a 2002 Air Force planning document put it, is to “prepare the US for an uncertain future by maintaining US qualitative superiority in nuclear warfighting capabilities in the 2020–2040 time frame.”<sup>3</sup>

Today, the work of designing, building, and maintaining U.S. nuclear bombs and warheads is done at eight sites in seven states. The laboratories at Los Alamos, New Mexico and Livermore, California do weapons research and design and a variety of tasks to keep existing nuclear weapons ready to go. The Los Alamos Lab also makes the plutonium “pits” that are the atomic trigger for thermonuclear weapons. The Sandia laboratories, in Albuquerque, New Mexico and Livermore, California, do engineering work on nuclear weapons and design and manufacture non-nuclear components. All three laboratories also conduct non-nuclear military research. The Nevada Test Site, where over a thousand nuclear weapons were exploded in the atmosphere and underground before the 1992 testing moratorium, continues to be used for underground experiments called “subcritical” tests that do not have a significant nuclear yield. These tests further develop nuclear weapons knowledge and help to keep the test site ready to resume full-scale nuclear testing if desired.

The remaining parts for nuclear weapons are manufactured at plants across the country. The Y-12 plant at Oak Ridge, Tennessee makes uranium parts and other components, including the “secondaries” that provide the fuel for the thermonuclear blast triggered by the explosion of the plutonium primary in most modern nuclear weapons. The Kansas City plant in Missouri makes and tests non-nuclear components. Georgia’s Savannah River facility extracts tritium, a radioactive isotope of hydrogen used to increase nuclear weapons yield, and fills the tritium containers for nuclear weapons. The Pantex plant in Amarillo, Texas assembles, modifies, and dismantles nuclear weapons, and also makes high explosive components.

The most important decisions addressed by the Complex Transformation EIS concern the modernization or replacement of factories to make the core components for nuclear weapons: the plutonium pits and the secondaries.



Source: National Nuclear Security Administration  
 FY2007-2011 Stockpile Stewardship Plan Overview, November 2006

The government wants to build additional facilities at Los Alamos to provide an “interim capability” for pit production, whether or not a new, larger factory will be located there for the long term. Los Alamos is the first choice for a new plutonium pit factory, and the Y-12 plant at Oak Ridge the preferred option for production of secondaries and other uranium components. Other locations under consideration for both uranium and plutonium factory operations include Savannah River, Pantex, and the Nevada Test Site.

The Complex Transformation EIS considers alternatives that would allow from 50 to 200 plutonium pits to be produced every year. Fifty nuclear weapons are enough to drop the bomb on every American city with a population over 350,000, from New York and Los Angeles to Austin, Cleveland, and Colorado Springs.

### **The U.S. Nuclear Arsenal: Old Weapons and New**

Almost two decades after the end of the Cold War, the U.S. deploys a force of nuclear weapons and delivery systems originally designed to destroy as much as possible of Russia’s nuclear arsenal before it could get off the ground. A thousand or more U.S. nuclear warheads stand ready to go in minutes atop missiles launched from silos in the U.S. Mid-West and from Trident submarines still perpetually patrolling the seas. Many more could be delivered by aircraft. All told, the U.S. still has close to 10,000 nuclear weapons, about half of them actively deployed. The U.S. plans to cut those numbers in half by 2012, pursuant to 2002 Moscow Treaty. That treaty, however, does not require the destruction of a single missile, bomber, or ballistic missile submarine. Further, a central goal of U.S. planners is to allow the reconstitution of a larger nuclear arsenal should U.S. decision makers choose to do so. As the head of the National Nuclear Security Administration recently described it, “. . .the deterrent won’t be the old Cold War model based on numbers of weapons, rather it will be the capability to respond to any national security situation and produce those weapons if necessary.”<sup>4</sup>

What do these numbers really mean? General George Lee Butler, retired commander of U.S. Strategic Command, emphasized that

it is imperative to recognize that all numbers of nuclear weapons above zero are completely arbitrary; that against an urban target one weapon represents an unacceptable horror; that twenty weapons would suffice to destroy the twelve largest Russian cities with a total population of twenty-five million people—one-sixth of the entire Russian population; and therefore that arsenals in the hundreds, much less in the thousands, can serve no meaningful strategic objective. . . . the START [Strategic Arms Reduction Treaty] III objective of 2000 operational warheads is a meaningless reduction in terms of the devastation at such levels.”<sup>5</sup>

An additional goal of “Complex Transformation” is to “[i]mprove the capability to design, develop, certify, and complete production of new or adapted warheads in the event of new military requirements.”<sup>6</sup> The push by elements inside and outside the government for nuclear weapons with new military capabilities slowed after the end of the Cold War, with Congress placing some restrictions on research on nuclear warheads and an official Clinton Administration policy of no “new” nuclear weapons. Despite this policy, U.S. nuclear weapons research continued throughout the 90's. These efforts had two goals: to develop the capacity to destroy difficult types of targets, and to design nuclear weapons that would be politically feasible to use. The B61-11, an earth penetrating version of an existing nuclear bomb with a variable yield, was developed in the late 1990's without a full-scale underground test, using just the component testing and computer simulation capabilities of the nuclear weapons laboratories.<sup>7</sup>

With the ascendance of the Bush Administration, the push for nuclear weapons with new military capabilities intensified. The 2001 Bush Nuclear Posture Review (NPR), a major policy document that outlined plans for strategic weapons development, stated that

There are several nuclear weapon options that might provide important advantages for enhancing the nation's deterrence posture: possible modifications to existing weapons to provide additional yield flexibility in the stockpile; improved earth penetrating weapons (EPWs) to counter the increased use by potential adversaries of hardened and deeply buried facilities; and warheads that reduce collateral damage.<sup>8</sup>

Congress has swung back and forth regarding the development of nuclear weapons with new military capabilities, sometimes providing explicit funding for “new” nuclear weapons programs (such as for a “Robust Nuclear Earth Penetrator” and for nuclear weapons “Advanced Concepts” research) and later cancelling those programs, while keeping general program funding for nuclear weapons research and development programs relatively stable. Congress with little dissent has funded “life extension” programs for existing nuclear weapons, programs that have modernized those weapons and in some cases upgraded their military capabilities.

The most recent “new weapons” initiative is the “Reliable Replacement Warhead” (RRW) program. Its goal is to obtain greater reliability by combining modern manufacturing techniques with greater design margins, in some circumstances taking advantage of less demanding requirements in terms of yield and weight than was deemed necessary for some Cold War missions. Congress cut funds designated for RRW work last year, but the Bush Administration is pushing hard for renewed funding in this year's budget, claiming that it “would offer means to transform to a more efficient and responsive, much smaller, and less costly nuclear weapons R&D and production infrastructure.”<sup>9</sup>

At the same time, the military is modernizing the missiles and bombers that carry U.S. nuclear weapons and their supporting infrastructure, with upgrades of everything from missile guidance systems to the computer hardware and software used to plan and execute nuclear strikes. The 2006 *Quadrennial Defense Review* called for a “new land-based, penetrating long-range strike capability to be fielded by 2018 while modernizing the current bomber force.”<sup>10</sup>

The endless quest for nuclear superiority is part of the larger gamble that U.S. elites are making with all our futures: that the pursuit of global military dominance will allow them to shore up their slipping economic hegemony for a few decades more. Nuclear weapons ultimately back massive U.S. conventional forces and an aggressive military posture world wide. As the Air Force *Strategic Planning Directive for Fiscal Years 2006-2023* made clear, nuclear weapons provide “. . . a credible deterrent umbrella under which conventional forces operate and, if deterrence fails, strike a wide variety of high-value targets with a highly reliable, responsive and lethal nuclear force... Desired effects include: Freedom for U.S. and Allied forces to operate, employ, and engage at will . . .”

All of this is taking place in a context where the United States has a policy—and a demonstrated practice—of preventive war-making, with the “proliferation” of nuclear weapons ranking first on the list of public rationales for war. While it ignores its own Nuclear Nonproliferation Treaty obligation to negotiate the elimination of its nuclear arsenal, the U.S. government claims the right to attack any state it chooses to portray as a nuclear danger. With the Iraq war, we saw how easily that threat could be used as the core of a propaganda campaign for a war of aggression. With the relentless effort to portray Iran as an imminent nuclear threat, we see the arrogance of violent, undemocratic elites who believe that they can get away with it again.

Nuclear weapons continue to pose fundamental threats to human security. They play a key role in sustaining the global climate of fear that justifies militarism and military industrial complexes everywhere. Their manufacture contaminates the earth with radioactive materials that can last for thousands of years. Their continued existence in a global context that increasingly resembles those that have brought major wars between rising and declining centers of economic power in the past poses a risk of nuclear catastrophe that may be greater than we faced during the Cold War. The U.S. plan to rebuild its nuclear weapons complex is an appropriate focus for bringing some of the forces that drive us to war to light—and to say no to this war, and the next.

**Comments on the Complex Transformation SPEIS may be submitted by mail to:**

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1000 Independence Avenue, SW. Washington, D.C. 20585

Or by fax: (703) 931-9222 (request confirmation of receipt)

Or by e-mail: [ComplexTransformation@nnsa.doe.gov](mailto:ComplexTransformation@nnsa.doe.gov)

**The Comment Period Closes April 30, 2008.**

**For the full text of the Complex Transformation SPEIS:**  
<http://www.complextransformationspeis.com/project.html>

*Information Brief for Western States Legal Foundation by Andrew Lichterman*

**Notes**

1. “US needs nuclear weapons for rest of century: general,” Agence France-Presse, March 4, 2008
2. U.S. Department of Energy, National Nuclear Security Administration, Draft Complex Transformation Supplemental Programmatic Environmental Impact Statement (Complex Transformation SPEIS), Appendix A, “Alternatives,” pp.A96-A97
3. U.S. Air Force Space Command, “Final Mission Need Statement, Land Based Strategic Nuclear Deterrent,” AFSPC 001-00, January, 2002 (unpaginated).
4. Address by Thomas P. D’Agostino, Administrator, National Nuclear Security Administration, “Complex Transformation and Strategic Weapons in the 21st Century,” Strategic Weapons in the 21st Century Conference Sponsored by Los Alamos National Laboratory and Lawrence Livermore National Laboratory, January 31, 2008
5. General George Lee Butler, Speech at the University of Pittsburgh, May 13, 1999.
6. National Nuclear Security Administration, Complex 2030: An Infrastructure Planning Scenario for a Nuclear Weapons Complex Able to Meet the Threats of the 21st Century, October 2006, pp.5-6
7. For an overview of the B61-11 modification, see Greg Mello, “New Bomb, No Mission,” Bulletin of the Atomic Scientists May/June 1997 (vol. 53, no. 03), pp. 28-32.
8. Nuclear Posture Review, pp. 34-35, provided in “Nuclear Posture Review Excerpts,” [Globalsecurity.org](http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm), at <http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm>
9. Statement of Thomas P. D’Agostino Administrator, National Nuclear Security Administration, U.S. Department of Energy, Before the House Committee on Armed Services Subcommittee on Strategic Forces February 27, 2008 p.6.
10. U.S. Department of Defense, *Quadrennial Defense Review Report*, 2006, p.47.