Stockpile Stewardship: Implementing the "New" Nukes Madness

In 1992, the U.S adopted the Nuclear Testing Moratorium Act. While that law was a major victory for public health and the environment, it did not stop nuclear weapons designers from continuing their deadly pursuits. Instead, a new program to "compensate" the weaponeers for the "loss" of full-scale underground testing was born. That program bears the deceptive name Stockpile Stewardship.

What is Stockpile Stewardship?

Eleven years ago, the Department of Energy (DOE) launched an aggressive effort to re-design every nuclear weapon type in the "enduring" U.S. arsenal. Under the guise of maintaining their "safety" and "reliability" the Stockpile Stewardship program has been used to develop new military functions for nuclear weapons. This program is responsible for the B61-11 variable yield earth penetrator, the first such "bunker busting" nuclear weapon in the stockpile. DOE is now conducting cost and feasibility studies for a Robust Nuclear Earth Penetrator.

B-61

Stockpile Stewardship employs 25,000 people and involves 62 programs. Most of the facilities — many still under construction — are located at the DOE weapons labs (Livermore in California plus Los Alamos in New Mexico, and Sandia, with sites in both states). Additional Stockpile Stewardship locations include: the Nevada Test Site; Oak Ridge, Tennessee's Y-12 Plant; the Pantex Plant in Texas; and South Carolina's Savannah River Site. The Stockpile Stewardship program implements the vision of more-usable nuclear weapons set forth in the Bush Administration's Nuclear Posture Review.

How Much Does it Cost?

Stockpile Stewardship is managed by the National Nuclear Security Administration (NNSA), a semi-independent agency within DOE. NNSA has requested $6.38 billion for Stockpile Stewardship activities in Fiscal Year 2004: the budget for similar activities in 1995 stood at $3 billion. This year's budget request is more than one and one-half times the average annual spending (in current dollars) for nuclear weapons research, development and testing during the Cold War. It far exceeds the budget necessary to maintain the existing stockpile of roughly 10,000 nuclear weapons, let alone a smaller arsenal. Most of this money will go toward weapons research and production facilities with new weapons design capabilities.

What Are the Major Facilities?

The single most expensive Stockpile Stewardship program is the problem-plagued National Ignition Facility (NIF) under construction at Lawrence Livermore Lab. NIF will use 192 lasers in an attempt to "ignite" a radioactive fuel pellet inside a reactor vessel. NIF is relevant to the study of the thermonuclear stage of an exploding nuclear weapon. It will also be used for research into pure fusion weapons, directed energy weapons and other new military concepts. NIF experiments will include "laser fireball tests" to examine the effect of special, low-yield nuclear weapons as well as a nuclear war's impact on weapons components, sensors and communications. Some experiments may involve the use of plutonium.

DOE promised Congress it would hold NIF construction costs to $1.1 billion. The General Accounting Office (GAO) now estimates that building NIF will cost $4.2 billion.

A study by a former Office of Management and Budget DOE program examiner forecasts that NIF's lifetime price tag will exceed $30 billion when technical problems and operating costs are factored in. The 2004 budget requests at least $365.7 million in NIF-related funding.

DOE is simultaneously pursuing several projects to help develop and produce nuclear weapons "primaries" or "pits," the fission cores for bombs. The FY 2004 budget request seeks $24.8 million for advanced pit radiography and $22.8 million (a 986% increase) to plan a massive new plutonium pit-manufacturing complex. It also asks for $25.3 million for "subcritical" tests in Nevada.

Major portions of the Stockpile Stewardship budget request are allocated for nuclear weapons redesign and "life extension" programs, consistent with the Nuclear Posture Review. For example, $208 million is slated for nuclear weapons "refurbishments" and $64.9 million for "supporting research and development," including "advanced warhead concepts" such as the new Robust Nuclear Earth Penetrator.

Both Stockpile Stewardship *and* Full-Scale Nuclear Testing?

On the one hand, officials at DOE and the weapons labs have issued statements outlining how they would use Stockpile Stewardship methods to put new and modified nuclear weapons into the arsenal. At the same time, former Livermore Lab director John Foster and others are actively campaigning for a return to full-scale nuclear testing.

The weaponeers want it all. They want Stockpile Stewardship facilities because they will yield even more precise weapons design data than full-scale tests for certain nuclear weapons design problems.They want full-scale underground tests as a final tool for validating that a new design "works" exactly as they want it to. The further a new design strays from a prior one, the greater their desire for an underground test to validate it. DOE's 2004 budget request seeks an additional $7 million to reduce the "readiness" lead time for full-scale tests at the Nevada Test Site from 24 to 36 months down to 18 months.

Do Better Alternatives Exist?

The U.S. needs neither the current Stockpile Stewardship program nor a return to testing. A number of studies show that the "safety" and the "reliability" of the U.S. nuclear weapons stockpile can be maintained indefinitely with a "curatorship" program centered on surveillance coupled with non-nuclear testing to determine when repairs are needed. Alternatively, a "remanufacuring" program under which DOE would periodically replace components with copies manufactured to original specifications. Nuclear disarmament also remains a technically viable option.

How Do We Get There From Here?

Alternative measures for managing the U.S. nuclear arsenal consistent with the nation's treaty obligations and non-proliferation goals must be instituted. As a first step, current excesses must be cut — beginning with the Stockpile Stewardship budget. Dubious projects like the National Ignition Facility should be halted. Plans for Cold War-sized, new production facilities should be abandoned. Efforts to increase "readiness" to conduct full-scale nuclear tests in Nevada deserve to be defeated. And the Nuclear Posture Review must be completely rescripted — to reduce, not increase, the danger.

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