



U.S. Plutonium Plans: Weapons, Waste, and Proliferation



Plutonium pits are the “triggers” for modern thermonuclear weapons. The U.S. manufactured pits at the Rocky Flats Plant near Denver until 1989, when the FBI raided the facility to investigate environmental crimes. That raid effectively ended industrial-scale plutonium pit production in the United States.

During the past decade, the Department of Energy (DOE) attempted to establish “limited” and “interim” production of up to ten pits per year at the Los Alamos National Laboratory (LANL) in northern New Mexico. Beginning in 2002, the National Nuclear Security Administration (NNSA), the semi-autonomous nuclear weapons agency within DOE, unsuccessfully pushed Congress for a massive facility to produce 450 pits per year. NNSA now plans to raise interim production at Los Alamos to as many as 80 pits per year.

NNSA is requesting \$281 million for “pit manufacturing and certification” for Fiscal Year (FY) 2008, a 16% increase over FY 2007 funding. The agency plans to spend \$1.34 billion on new plutonium pits between 2009 and 2012.

New Pits for Unnecessary New Weapons

These increasing funding requests come on the heels of a scientific review that found the plutonium pits in U.S. nuclear weapons to be far more stable than originally believed.

In November 2006 independent scientists concluded that pits last a century or more. In comparison, the oldest U.S. nuclear weapons in the planned stockpile are less than 30 years old.

Recommendations

- Congress should cut funding for expanded production of plutonium pits, including funding for the Consolidated Plutonium Center.
- Congress should bar any funding for the development or production of Reliable Replacement Warhead pits.
- Congress should cancel funding for the plutonium mixed oxide fuel program and approve funding for plutonium immobilization.
- Congress should order an investigation of missing plutonium at Los Alamos.

Nevertheless, NNSA is currently asking for \$25 million to begin design work for a “Consolidated Plutonium Center” (CPC) capable of producing at least 125 pits per year. According to internal documents, the real driver for expanded pit production at both LANL and the future CPC is NNSA’s plan to begin producing new plutonium pits for the Reliable Replacement Warhead (RRW) Program.

The U.S. presently has about 25,000 plutonium pits. Nearly 10,000 are in existing nuclear warheads. Five thousand are held in “strategic reserve.” More than 10,000 deemed “surplus” are stored at the Pantex Plant in Texas.

New Pits Undermine Nonproliferation

The U.S. is setting a very poor global example as it works to convince other countries to eliminate or forgo nuclear weapons. The Bush Administration’s 2002 Nuclear Posture Review expanded both the missions and targets for U.S. nuclear weapons. Additional pit production, coupled with the Reliable Replacement Warhead program, institutes a “nuclear weapons forever” policy that breaks commitments the U.S. made as a signer of the 1970 Nuclear Non-Proliferation Treaty.



Department of Energy Photo

A “button” of plutonium produced at the former weapons facility at Rocky Flats, CO. Worker exposure and environmental contamination were routine at Rocky Flats.

Pit Production Is Costly

Pit production at Los Alamos and Lawrence Livermore national laboratories would cost \$1.6 billion from 2006 to 2012. These costs do not include money for decontamination and cleanup, which would likely be significant. The costs of the future Consolidated Plutonium Center are currently unknown, but they would inevitably be several billion dollars or more for construction alone.

At a time when federal deficits are escalating and domestic funding is being cut, these resources could be better spent elsewhere. Pit production and other U.S. nuclear weapons programs could prompt a global arms race, the costs of which would be incalculable.

Pit Production Is Inherently Dangerous

Infinitesimal amounts of plutonium can cause cancer. The environmental record at the Rocky Flats Plant was terrible, replete with accidents, fires, offsite contamination, and severe worker exposures. Because plutonium can self-combust, NNSA has said that the “potential for fire initiation cannot be totally eliminated.” The plutonium pit facility at

LANL has operated for nine years without updated, approved safety protocols, and workers have been repeatedly contaminated. There is increasing evidence of groundwater pollution at the lab, with more “expected over a period of decades to centuries as more of the contaminant inventory reaches the water table,” according to a 2005 LANL report.

LANL Can't Keep Track of Its Plutonium

Analysis by the Institute for Energy and Environmental Research finds that there is a discrepancy of about 300 kilograms of plutonium – enough to make 60 bombs – in LANL’s nuclear waste materials accounts. NNSA claims that no weapons plutonium is missing, suggesting that the nuclear waste accounts at LANL are wrong, particularly the accounts relating to waste destined for the Waste Isolation Pilot Plant (WIPP) in New Mexico. The differing NNSA and WIPP accounts cannot both be right. This raises serious security issues and also puts the integrity of LANL’s entire plutonium waste and site remediation programs into question. It could also present significant public health and environmental threats. This urgent problem must be investigated independently and without delay. In the meantime, LANL waste shipments to WIPP should be halted.

Immobilize Excess Plutonium, Cancel the Plutonium Fuel Program

DOE proposes to turn 34 tons of weapons-grade plutonium into mixed-oxide (MOX) plutonium reactor fuel as a pathway for disposition. However, manufacturing and using plutonium fuel threatens the environment and poses proliferation risks at every step of the process. There are no plans in place for the dangerous waste stream from MOX, and the reactors proposed to “burn” the experimental MOX fuel are poorly designed and old.

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