

Plutonium pits — carefully fabricated spheres of metal — and high explosives 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, effectively ending industrial-scale plutonium pit production.

## The U.S. Already Has Too Many Pits

The U.S. presently has about 25,000 plutonium pits. Nearly 10,000 are in nuclear warheads. Five thousand are in “strategic reserve,” and more than 10,000 “surplus” pits are stored at the Pantex Plant near Amarillo, Texas. The May 2002 Moscow Treaty requires Russia and the U.S. to reduce their nuclear arsenals to 2,200 or fewer deployed strategic warheads each by December 31, 2012, but fails to mandate irreversible dismantlement. Under this treaty the U.S. will likely retain some 25,000 pits.

The Pantex Plant is the site where nuclear weapons assembly and disassembly occurs. Pantex has been specifically authorized to “reuse” up to 350 existing pits per year, mooted any claimed need to produce new pits for the planned nuclear stockpile. Pantex boasts that pit reuse is far less expensive and environmentally damaging than new pit production.

## Interim Pit Production

Starting in 1998 the Department of Energy (DOE) attempted to establish “interim” pit production at the Los Alamos National Laboratory (LANL) in northern New Mexico. LANL produced the first new pits in 2007. The ten pits were certified for replacement of existing pits in W88 warheads.

DOE’s original argument for reestablishing production was that it had no spare W88 pits for annual defect checks. But only one pit per type of nuclear weapon is “destructively analyzed” every year. Moreover, the number of W88 warheads should be reduced under the Moscow Treaty, thereby making spare pits available.

## Expanding Pit Production

Since 2002, the National Nuclear Security Administration (NNSA) has pushed for a Modern Pit Facility capable of producing 450 or more pits per year. When Congress failed to fund NNSA’s proposal for two consecutive years, NNSA then proposed a “Consolidated Plutonium Center” to produce 125 pits per year. That also failed to gain Congressional support.

NNSA’s draft “Complex Transformation” plan sought to increase production capacity at Los Alamos to up to 80 pits per year by designating LANL as the preferred permanent pit production site. The proposed “Nuclear Facility” for the Chemistry and Metallurgy Research Replacement (CMRR) Project is central to these expansion plans, for which NNSA requested \$68.2 million for design work in FY09. Estimates for the total construction costs of this proposed plutonium facility have nearly quadrupled since 2004 to more than \$2 billion.

NNSA has recently chosen to defer any decision on expanding plutonium pit production at LANL until a new Congressionally-required Nuclear Posture Review (NPR). Without the CMRR’s Nuclear Facility (CMRR-NF), LANL’s maximum production capacity will remain limited to 20 pits per year, more than enough to meet current stockpile requirements. There is no need to fund the CMRR-NF before the new NPR, especially when NNSA has already assigned a major portion of the old CMR Building’s mission to LANL’s existing pit production facility, which could absorb yet more work given continuing low pit production requirements.

## Pit Lifetimes

In November 2006 independent scientists released their review of NNSA's ongoing plutonium aging studies. They concluded that pits last a century or more, double NNSA's previous projections. In comparison, the oldest U.S. nuclear weapons in the planned future stockpile are 30 years old.

The real reason NNSA wanted expanded pit production is for new nuclear weapons designs, the so-called Reliable Replacement Warheads (RRW). LANL planned to begin production of up to 50 RRW pits per year by 2012, but Congress rejected all funding for RRW in FY08 and FY09.

## The True Costs of Pit Manufacturing

The FY 2009 NNSA budget request includes \$241.56 million for pit manufacturing, capability and certification, 13% above FY 2008 congressional appropriations.

In FY 2007 Los Alamos finally produced ten pits, six years after originally scheduled, as part of the "Pit Manufacturing and Certification Campaign." NNSA terminated the Campaign in its FY09 budget request and transferred \$145.3 million to a new subprogram under "Directed Stockpile Work" for pit manufacturing at Los Alamos, with \$585.3 million slated between 2010 and 2013.

NNSA also shifted \$53.6 million, a 37% increase from FY 2008, for "Pit Manufacturing Capability" to Directed Stockpile Work, primarily performed at the Lawrence Livermore Lab. One stated purpose is to "develop the processes and equipment to manufacture the RRW pit."

Pit production costs at Los Alamos will be \$2.5 billion from FY 2009 to 2013, including facility costs. During the same time, another quarter-billion is slated for new manufacturing capability research and development at Livermore. These figures do not include eventual decontamination and cleanup costs.

## New Pits Undermine Nonproliferation

The U.S. is setting a terrible global example as it struggles to convince other countries to eliminate or forgo nuclear weapons. Expanded pit production, coupled with the RRW program, institutes a "nuclear weapons forever" policy that breaks promises the U.S. made as a party to the 1970 Nuclear Non Proliferation Treaty. Congress has already mandated a new Nuclear Posture Review by President Obama and established a bi-partisan commission to recommend new U.S. nuclear weapons policies. Any decisions about plutonium pit production before those reviews are completed would be premature.

### RECOMMENDATIONS

- Postpone decisions on new production capabilities until the 2009 Nuclear Posture Review is completed.
- Delete all funding for the CMRR-NF and for "Pit Manufacturing Capability" in the FY 2010 request.
- Eliminate funding for the RRW program and for any new programs intended to develop RRW weapons under a new name (e.g., under a so-called "heavy" Life Extension Program.)
- Require deep reductions in the U.S. nuclear stockpile in cooperation with Russia.
- Mandate increased permanent dismantlements of warheads from the surplus stockpile.

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