nuclear watch new mexico

LANL's First "Certified" Plutonium Pit: Unnecessary, Provocative, Behind Schedule and Over Budget

The Department of Energy lost the ability to manufacture plutonium pits, the critical primaries or "triggers" of nuclear weapons, when the Rocky Flats Plant near Denver ceased operations in 1989 following an FBI raid investigating environmental crimes. In 1996, the Department of Energy (DOE) formally designated the Los Alamos National Laboratory (LANL) as the "interim" site to produce pits for the nuclear stockpile. Now the danger is that LANL will become the nation's *de facto* permanent pit production center with the construction of a huge new plutonium facility (the "Chemical and Metallurgical Research Replacement Project") and other major improvements to Technical Area-55, LANL's so-called plutonium "campus." In many respects, the Lab is simply returning to its roots as the original site of pit production. Much of LANL's current surface and groundwater contamination is attributable to those early years, with more contamination to be expected with expanding plutonium pit production.

DOE's long-claimed need for resuming pit production is that it needs spare pits for the W88 nuclear warhead for laboratory analysis of stockpile reliability (W88 pits were in production at Rocky Flats when it was shut down). The submarine-launched W88 has an estimated yield of 475 kilotons (more than 20 times more powerful than the plutonium weapon that destroyed Nagasaki). Each sub can carry up to 24 missiles with a payload of up to 8 independently targeted warheads, each capable of striking, for example, Moscow in less than 20 minutes.

The Natural Resources Defense Council estimates that the U.S. has 400 W88 warheads. First, there is no clear reason why this number is still needed in the post-Cold War era. Second, in November 2006 independent experts concluded that plutonium pits have reliable lifetimes of at least 85 years (the oldest W88 pit is now 19 years old), so pit production is not needed to begin with. Third, it is provocative to resume nuclear weapons production while the U.S. preaches to other countries that they can't have weapons of mass destruction. Given that the proliferation of nuclear weapons is our biggest national security threat, the number of deployed W88 warheads should be slashed as an international example, which would then give DOE all the spare pits it needs for reliability analysis.

However, the claimed need for W88 pit production is the "camel's nose" for other purposes. The National Nuclear Security Administration (NNSA), DOE's semi-autonomous nuclear weapons agency, wants the ability to produce new-design pits for new-design nuclear weapons under the so-called Reliable Replacement Warhead (RRW) Program. In fact, Los Alamos is currently scheduled to produce its first RRW "engineering" pit by 2009 and go into RRW stockpile production by 2012. At the same time, not coincidentally, the Lab is seeking to expand its sanctioned level of production from 20 to 50 certified pits per year.

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LANL was originally scheduled to deliver its first W88 "war reserve" pit certified for deployment to the stockpile in 2001. The fiscal year (FY) 2000 DOE Congressional Budget Request (CBR) states, "approximately 30 pits will be fabricated for certification and qualification with the goal of having a war reserve W88 pit available for the stockpile in 2001." (PDF p. 8.) This goal is repeated as "meeting the FY 2001 stockpile delivery commitment..." (Ibid., PDF p. 24.) From the CBRs one can calculate that the cumulative cost of the "Pit Manufacturing and Certification Campaign" and its preceding "Pit Production Program" totaled $513 million from 1998 to 2001 in 2007 dollars. (See table below.)

In January 2002, NNSA moved the goal posts to the current timeline of producing the first certified pit by 2007. (DOE/IG-0551 Report, April 2002, p. 1.) Ongoing and chronic problems led to the DOE's own Secretary of Energy Advisory Board's observation that, "TA-55 is a remarkable facility… However… the one missing element is: Productivity." (Nuclear Weapons Complex Infrastructure Task Force Report, July 2005, p. H-5.) Again using CBR data, Nuclear Watch calculates that LANL has spent $1.79 billion to produce this first certified pit, $1.28 billion above the cumulative costs of the original date of 2001.

But even this is still not the true cost of this first certified pit. In FY 2002 NNSA deleted the costs of operating LANL's main plutonium facilities from pit production as follows:

> There are a number of facilities and activities that must be supported to ensure success for this [pit production] campaign, but are appropriately requested in other budget elements in FY 2002…. Also within RTBF [Readiness in Technical Base and Facilities], Operations of Facilities, funding is included for a number of facilities at LANL, including $81.9 million for the CMR and TA-55. These facilities and activities are critical to the success of the Pit Manufacturing and Certification Campaign. (FY 2002 NNSA CBR, Weapons Activities, p. 154)

Adding the costs of these facilities at $81.9 million per year from FY 2002 to FY 2007, **the adjusted total cost for this first certified pit is $2.3 billion**. That money would have been much better spent on true national security priorities, such as nonproliferation programs, port security and energy independence.

(Dollars in 1000s, all years federal fiscal years)

Year	Appropriated Funding	Inflation Adjusted	Congressional Budget Request/ Line Item/ Page
1998	82,888	103,380	2000/ Weapons Activities/ Stockpile Mgt./ Pit Prod./PDF p. 18
1999	103,755	127,050	2000/ Weapons Activities/ Stockpile Mgt./ Pit Prod./PDF p. 18
2000	107,271	127,690	2002/ Weapons Activities/ Pit Man. and Cert./ PDF p. 87
2001	155,181	179,960	2003/ Weapons Activities/ Pit Man. and Cert./ PDF p. 95
2002	195,595	222,750	2004/ Weapons Activities/ Pit Man. and Cert./ p. 225
2003	208,605	232,300	2005/ Lab Tables/ LANL/ Pit Man. & Cert./ p. 64
2004	193,885	209,960	2006/ Lab Tables/ LANL/ Pit Man. & Cert./ p. 56
2005	192,374	202,030	2007/ Lab Tables/ LANL/ Pit Man. & Cert./ p. 54
2006	191,504	194,690	2008/ Lab Tables/ LANL/ Pit Man. & Cert./ p. 50
2007	194,671	194,671	2008/ Lab Tables/ LANL/ Pit Man. & Cert./ p. 50
Totals	1,625,729	1,794,481	

Notes: These data are calculated while deleting costs extraneous to pit manufacturing at LANL, for example funding for the design of the now defeated "Modern Pit Facility." Inflation adjustments calculated by using http://minneapolisfed.org/Research/data/us/calc/index.cfm.