



The Modern Pit Facility: A \$4 Billion Boondoggle Being Sold on Alarmist Rhetoric and Dated Data

A \$4 billion boondoggle- no need for a new pit facility

The National Nuclear Security Administration (NNSA) is currently designing a \$2-4 billion Modern Pit Facility (MPF)ⁱ that will cost taxpayers nearly \$7 million in FY2005. The facility's proponents at the NNSA have used extreme rhetoric that depicts a US nuclear stockpile on the verge of extinction, a view that is not backed up by the facts. Given what we know about pit lifetimes, the MPF is premature at best and completely unnecessary at worst. Congressman Hobson (R-OH) has led the charge to reduce spending on this facility and has successfully made deep cuts in the program, but the NNSA continues to pursue the project without giving the appropriate level of consideration to alternatives.

NNSA claims clash with reality

Inside every nuclear weapon is a primary explosive device that sparks the main explosion: the plutonium pit. Pits are bombs in their own right, similar to the one dropped on Nagasaki. Since the end of the Cold War and the cessation of the nuclear arms race, the U.S. has not aggressively pursued the creation of new pits, reflecting the reduced role of nuclear weapons in the post Cold War world and the findings of the 1994 Nuclear Posture Review carried out by the Department of Defense, which recommended that existing nuclear stockpiles be maintained but clearly stated that "no new-design nuclear warhead production is required".ⁱⁱ

In 2002, a new Nuclear Posture Review was conducted, and in contrast to its predecessor, it called for a more responsive nuclear force, and specifically mentioned that "a need may arise to modify, upgrade, or replace portions of the existing nuclear force or develop concepts for follow on nuclear weapons better suited to the nation's needs".ⁱⁱⁱ In the wake of that report, the NNSA started designing a \$4 billion MPF that could churn out 125-450 pits per year^{iv}.

Much of the support for this facility is based on the NNSA's claims that a new pit facility is necessary to maintain the current nuclear stockpile. This claim is not true. According to NNSA scientists, pits have long life spans, and while some of the older pits may eventually require replacement, the thousands of pits currently stockpiled provide a short-term hedge against aging. Furthermore, the NNSA's own draft environmental impact statement (DEIS) for the modern pit facility found that the labs at Los Alamos could be outfitted to produce 50-150 pits a year.^v The reserve and this limited new production combined will sufficiently provide for maintenance of our nuclear arsenal in the near future. If we are to build an MPF, the NNSA needs to demonstrate that there is a compelling need for one based on our stockpile requirements and better data regarding existing pit lifetimes.

Long pit lifespan makes an MPF premature at best, useless at worst

The necessity of new pits is contingent on the reliability of the original pits that reside in many of our nuclear weapons. No new pits have been made since the closing of the Rocky Flats pit facility in 1989^{vi}. Most of the stockpiled pits are less than 27 years old, having been made shortly before the closing of the Rock Flats pit facility in the period between 1978 and 1989.^{vii} At some point, existing pits will have to be replaced as the plutonium in them slowly degrades over time. This makes some limited pit production necessary if we are to maintain our stockpile without significant dismantlement.

NNSA scientists have estimated that pits are good for 45 to 60 years at a minimum.^{viii} Dr. Richard Garwin, a highly respected physicist and a former consultant on weapons design at Los Alamos Laboratory, has estimated pit life to be 60-90 years^{ix}. On average, pits in the current stockpile are 20 years old^x, giving them anywhere from 25 to 70 years of remaining life. Without more time to study the problem of pit deterioration, it is difficult to make an informed decision on the necessity of the MPF, but even under pessimistic estimates, beginning work on the MPF now is premature.

The MPF is scheduled to start turning out its first pits in 2017, when the average age of pits in the stockpile will be 32 years. Only a limited number of stockpile pits are considerably older than this, and these could be replaced both by pits from the arsenal and by pits manufactured at Los Alamos Labs, which the MPF DEIS asserted could produce 80 pits a year without detriment to the Labs' other programs.^{xi} The MPF DEIS called this option "a reasonable EIS alternative to a new MPF," and pegged the cost at a much more affordable \$700 million^{xii}.

The NNSA is still studying the problem of pit aging and is expected to release a complete report in 2006, underscoring the reality that the MPF has proceeded despite inadequate study. It was this inability of the NNSA to justify the project with strong data that prompted Representative Hobson to slash the MPF's funding by half in the House and write in his committee report, "the Department's rush to commit to an MPF design and siting decision is premature without the development of a detailed analysis of outyear pit production capacity requirements."^{xiii}

A staggering price tag: \$4 billion+

The NNSA's attempt to bilk taxpayers out of \$30 million in FY2005 failed as funds were cut to \$7 million and restricted to design only, but the MPF's costs are rising, and advocates of the project will be trying to resurrect funding.^{xiv} The earlier the MPF is cancelled, the better.

Once construction begins, the facility will cost \$2-4 billion to build, and it will incur operating costs of \$200-300 million every year.^{xv} Without a better idea of actual pit lifetimes, financing such a costly undertaking is fiscally irresponsible.

Deceptions and delays from the NNSA can't change the fact that the MPF is a \$4 billion boondoggle

Prominent NNSA officials are using alarmist rhetoric in an attempt to convince legislators that we have no choice but to build the MPF. Their contention is that the facility is absolutely necessary for the maintenance of our existing stockpile. This is not the case. The MPF DEIS cites two reasons for a new pit facility: capacity and agility. As shown above, improving the facilities at Los Alamos can meet our capacity needs. These improvements will not entirely allow for the level of "agility" that the NNSA wants, but what they call agility, the ability to manufacture new design pits and to manufacture several different pit types in tandem, has more to do with creating new nuclear weapons than it does with maintaining the current stockpile.

The NNSA wants it to seem like this is a choice between neglecting our stockpile and restoring it, but it is really a choice between maintaining our stockpile and expanding our stockpile. Absent a compelling reason for expanding our already overwhelming nuclear arsenal, there is no reason to spend \$4 billion and countless hundreds of millions more in operational costs for a new pit facility.

ⁱ Paine, Christopher. "It Really is the Pits." Bulletin of the Atomic Scientists October 2003.

ⁱⁱ Department of Defense. 1995 Annual Defense Report. Washington: Department of Defense, 1995.

ⁱⁱⁱ Nuclear Posture Review [Excerpts]. January 8, 2002. GlobalSecurity.org. Accessed April 7, 2004. <<http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm>>

^{iv} *Ibid.*

^v Department of Energy Draft Environmental Programmatic Environmental Impact Statement on Stockpile Stewardship and Management for a Modern Pit Facility, Appendix G. Washington: Department of Energy, May, 2003.

^{vi} Medalia, Jonathan. Nuclear Warhead Pit Production: Background and Issues for Congress. Washington: Congressional Research Service, March 29, 2004.

^{vii} *Ibid.*

^{viii} Martz, Joseph and Adam Schwartz. "Plutonium: Aging Mechanisms and Weapon Pit Lifetime Assessment." Journal of Metals, The Minerals, Metals and Materials Society September 2003.

^{ix} R.L. Garwin, Maintaining Nuclear Weapons Safe and Reliable Under a CTBT, AAAS Annual Meeting, February 16, 2001.

^x "US Nuclear Forces, 2002." Bulletin of the Atomic Scientists. June 2002.

^{xi} Department of Energy Draft Environmental Programmatic Environmental Impact Statement on Stockpile Stewardship and Management for a Modern Pit Facility, Appendix G. Washington: Department of Energy, May, 2003.

^{xii} *Ibid.*

^{xiii} Committee on Appropriations, Energy and Water Development Appropriations Bill, 2004. Washington: House of Representatives, July 16, 2003.

^{xiv} Department of Energy. FY 2005 DOE Budget Request to Congress. Washington: Department of Energy, February 2, 2004.

^{xv} National Nuclear Security Administration. Modern Pit Facility Fact Sheet. Washington: National Nuclear Security Administration, June 2003.