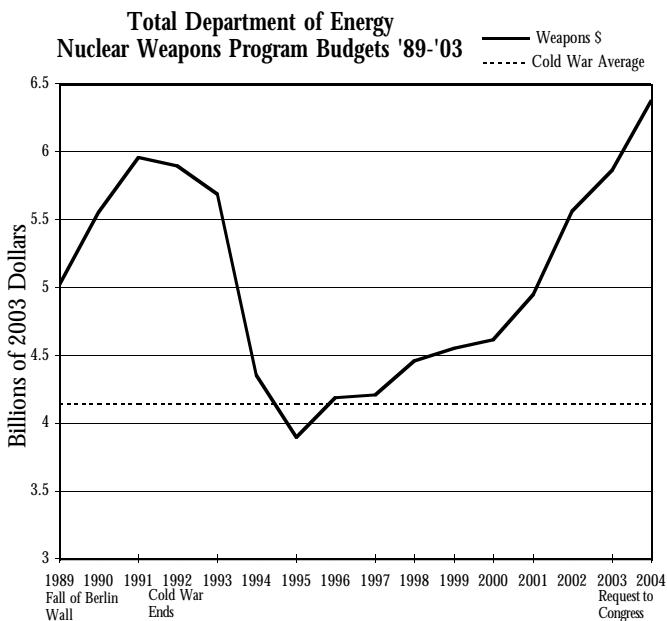


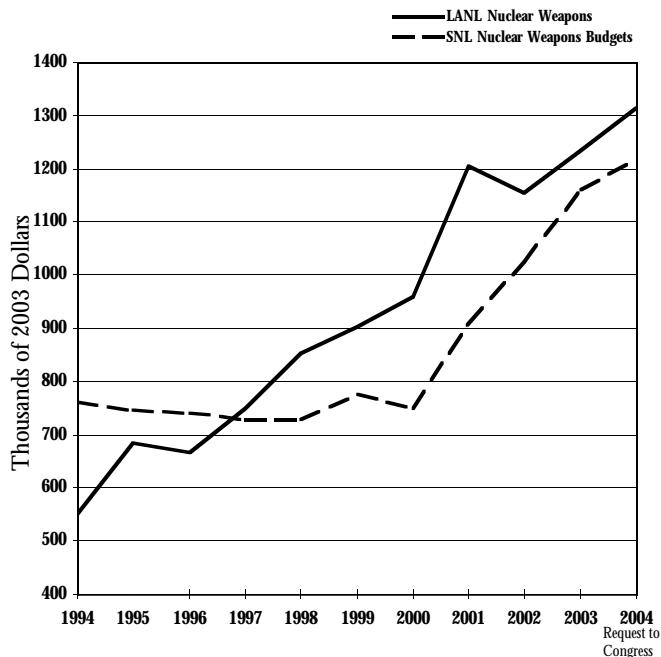
## Focus On LANL & Sandia: The NNSA's FY04 Nuclear Weapons Budget

The Department of Energy (DOE)'s nuclear weapons programs are funded under its semi-autonomous National Nuclear Security Administration (NNSA). The NNSA's Fiscal Year 2004 request for "Total Weapon's Activities" is \$6.4 billion (9% above the last fiscal year's request<sup>1</sup>) and is the second highest ever for nuclear weapons research and development programs, only \$73 million less than the peak year of President Reagan's military buildup. This increase is "in direct support of



the guidance given in the Nuclear Posture Review" (NPR). The NPR expanded the list of potential nuclear targets from two countries to seven, called for the development of new nuclear weapons, the reinstitution of production levels comparable to Cold War rates and a possible return to full-scale testing.<sup>2</sup> Of this \$6.4 billion, 39% will be spent by the Los Alamos National Laboratory (LANL) with funding at \$1.3 billion (a 10% increase over DOE's FY03 request) and the Sandia National

### LANL and SNL Nuclear Weapons Programs



Laboratories (SNL) in New Mexico at \$1.2 billion (an 8% increase).<sup>3</sup> By FY09 the NNSA projects that the funding level for its nuclear weapons programs will rise to \$7.7 billion, almost double the historic Cold War average. At the same time the U.S. is forcibly demanding that other countries rid themselves of weapons of mass destruction!

There are three main budget categories under the NNSA's Total Weapons Activities: "Directed Stockpile Work" (\$1.37 billion, plus 4.9% over FY03); "Campaigns" (\$2.39 billion, plus 10.6%); and "Readiness in Technical Base and Facilities" (\$1.61 billion, plus 7.4%).

**Directed Stockpile Work** is the fabrication and production activities whose main priority is "Life Extension Programs" that seek to preserve U.S. nuclear weapons indefinitely through refurbishments or possible new

designs. Toward that end an aggressive schedule of refurbishments is already planned for four out of the seven nuclear weapons types that are slated to remain in the “enduring” stockpile. These weapons types are: 1) the B61, which is either a tactical or strategic gravity bomb with a reported “dial-a-yield” capacity between .5 kiloton to 500 kilotons;<sup>4</sup> 2) the W76, a submarine-launched warhead with a 100 kiloton yield; 3) the W80, a cruise missile warhead with a yield of 150 kilotons; and 4) the W87 for intercontinental ballistic missiles, with a minimum yield of 375 kilotons. All of these refurbishments are believed to result in greater accuracy and effectiveness.

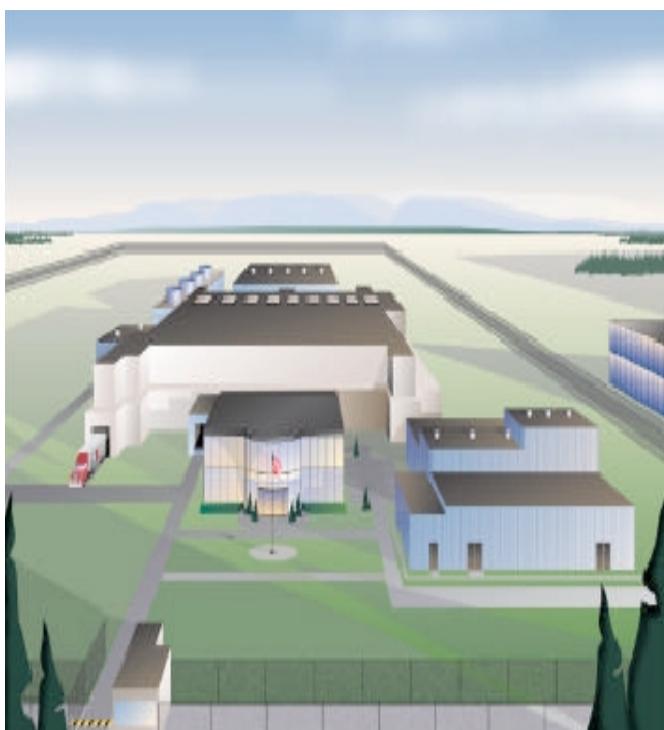


B61 Bomb

Also included under Directed Stockpile Work is \$15 million for a feasibility and cost study for the **Robust Nuclear Earth Penetrator**, which is to be a major earth-penetrating modification of either the LANL-designed B61 or the Lawrence Livermore National Laboratory (LLNL) designed B83. “Red teams” at both labs have already been formed to compete for this modification. **With respect to the current war in Iraq the U.S. has refused to rule out the possibility of using an earlier “bunker-busting” modification of the B61.** In the FY04 request, \$6 million is also requested for other unidentified “additional and exploratory studies.” The RNEP and the exploratory studies are both part of the “Advanced Warhead

Concept Initiative” that is mandated by the NPR for proposing new nuclear weapons capabilities. Further, the Pentagon is expected to soon issue a formal “military requirement” for the RNEP. This can only serve to increase its funding and hasten its deployment to the stockpile.

**Campaigns** are “multi-year, multi-functional efforts...[that] provide specialized knowledge and technical support to the directed stockpile work on the nuclear weapons stockpile.” Prominent among the eighteen NNSA campaigns is the **“Pit Manufacturing and Certification Campaign,”** which seeks to reestablish plutonium pit production. Plutonium pits are the triggers for modern thermonuclear weapons, for which DOE lost production capability after the FBI raided the Rocky Flats Plant in 1989 while investigating environmental crimes. Since that time the



Conceptual Drawing of the Modern Pit Facility, from *MPF Fact Sheet*, NNSA, October 2002, [www.mpfeis.com/PDFs/MPFfs\\_1.pdf](http://www.mpfeis.com/PDFs/MPFfs_1.pdf)  
The future location of the MPF will likely be at the DOE’s Savannah River Site in South Carolina or the Waste Isolation Pilot Plant in Carlsbad, New Mexico.

NNSA has sought to relocate the pit production mission to LANL. Requested funding for this campaign for FY04 is \$320.2 million, a 35.7% increase over FY03. By the time that LANL is scheduled to produce its first certified (i.e., ready for the stockpile) pit in FY07 it is estimated that it will have cost \$1.7 billion. Included in this campaign for FY04 is \$20.7 million for the design of a **Modern Pit Facility** (MPF), which will be capable of producing up to 500 pits per year (comparable to Cold War rates!). The NNSA's official justification for the MPF is that LANL's pit production rates will be too limited for future "capacity" requirements and that the facility will provide the "flexibility" to produce new-design pits (in other words, new nuclear weapons). The MPF is scheduled to be completed in 2011 at an estimated cost of up to \$4.1 billion.



DARHT Facility from *Status of the [DARHT] Facility*, M. J. Burns et al, LANL, linac96.web.cern.ch/Linac96/Compendium/PAPERS/THURSDAY/THP85.PDF

Another significant campaign is the "Advanced Radiography Campaign," up 25% with a FY04 request of \$65.9 million. Under this campaign the \$300 million **Dual Axis Radiographic Hydrotest Facility** (DARHT) at

LANL is being finished for operations beginning in FY05. DARHT will x-ray simulated plutonium pits while they are imploded. These explosive tests, often involving plutonium in containment vessels, are slated to triple and are key to ongoing nuclear weapons design work. At the same time \$24.8 million will be spent in FY04 in technology development for DARHT's follow-on facility, the **Advanced Hydrotest Facility** (AHF, estimated up to \$2 billion). The AHF will be the nuclear weaponeer's ultimate design tool.

The third main budget category **Readiness in Technical Base and Facilities** "provides the physical and operational infrastructure at the eight NNSA sites, [which are the] three national laboratories, four production sites, and the Nevada Test Site." Under this program the NNSA is requesting an additional \$7 million (\$25 million total) to **shorten the time required to resume full-scale testing** at the Nevada Test Site from the current lead time of 24 - 36 months to just 18 months.

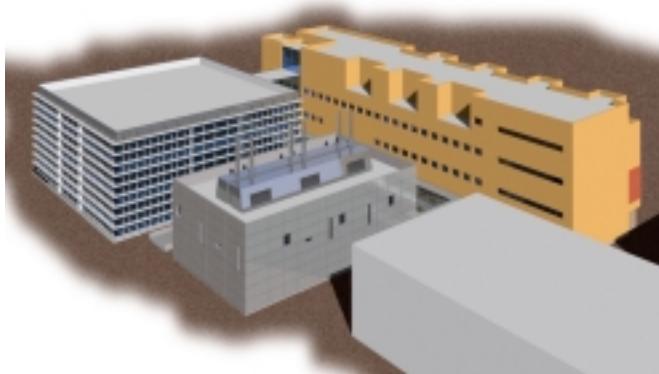
This category also funds the following **construction projects** at LANL and SNL:

- A new **National Security Sciences Building** at LANL; total cost \$118.7 million, \$50 million in FY04, completion in 2007. This will be the lab's primary future facility for its nuclear weapons designers, theoretical/computational researchers and senior general managers in support of the NNSA's Stockpile Stewardship Program.
- The **Chemical and Metallurgical Research Facility Replacement Project** at LANL; total cost \$600 million, \$20.5 million in FY04 for design of nuclear labs and construction of an initial "Light Lab/Office Building," completion in 2011. The Replacement Facility will be an advanced plutonium lab in direct support of plutonium pit production.



CMR Replacement Conceptual Drawing: *LANL Daily News Bulletin*, 7-24-2002, [www.lanl.gov/orgs/pa/newsbulletin/images/CMR\\_rendition.jpg](http://www.lanl.gov/orgs/pa/newsbulletin/images/CMR_rendition.jpg)

- The **Microsystems And Engineering Sciences Application Facility** (MESA) at Sandia; total cost \$518.5 million, \$61.8 million in FY04, completion 2011. This is the second biggest project currently under construction in the nuclear weapons complex after the National Ignition Facility at the Lawrence Livermore National Laboratory (LLNL) in California. The purpose of MESA is to incorporate emerging microtechnologies into nuclear weapons components. Sandia calls MESA “the cornerstone of 21<sup>st</sup> century weapons development.”



Conceptual Drawing of the MESA Facility: SNL, [www.sandia.gov/media/NewsRel/NR1999/images/jpg/MESA.jpg](http://www.sandia.gov/media/NewsRel/NR1999/images/jpg/MESA.jpg)

#### Miscellaneous budget notes:

- Even as LANL has become embroiled in a credit card misuse and coverup scandal that could spread to the other two labs, the NNSA

is being reorganized in a manner that may further reduce DOE oversight. The FY04 budget eliminates the DOE field offices, most notably the Albuquerque Field Office, thus creating greater site autonomy.

- The FY04 budget continues to directly subsidize the Los Alamos County school system with its annual \$8 million request, despite the fact that LANL pays no taxes to New Mexico (estimated taxes would be \$60 million annually, half of which would go to the State's education budget). This is because the lab's nuclear weapons work is deemed to be "nonprofit and educational" by virtue of the fact that it is managed by the University of California.
- The NNSA has transferred its \$77.3 million Chemical and Biological National Security Program to the new Department of Homeland Security. This is significant because an advanced biological agents research lab is now being built at LANL, with another soon to follow at LLNL. The government has yet to publicly disclose budget details for the new Department.

<sup>1</sup> Normally budget comparisons to the last fiscal year are given in terms of what was actually appropriated by Congress. However, for FY03 Congress combined and passed 11 different bills in a giant omnibus appropriations bill without detailed authorizing language. Therefore, comparisons can only be made to what the DOE requested for FY03. The general trend in the last few years by Congress has been to appropriate more than the NNSA has asked for its nuclear weapons programs.

<sup>2</sup> For more on the NPR, please see:  
[www.nukewatch.org/watchdog/newsletters/nprbulletin.pdf](http://www.nukewatch.org/watchdog/newsletters/nprbulletin.pdf).

<sup>3</sup> A fraction of SNL's nuclear weapons budget will be spent at its satellite lab adjacent to LLNL in California.

<sup>4</sup> One kiloton is equivalent to the explosive force of 1,000 pounds of TNT. The Hiroshima bomb was approximately 15 kilotons.

-- Jay Coghlan