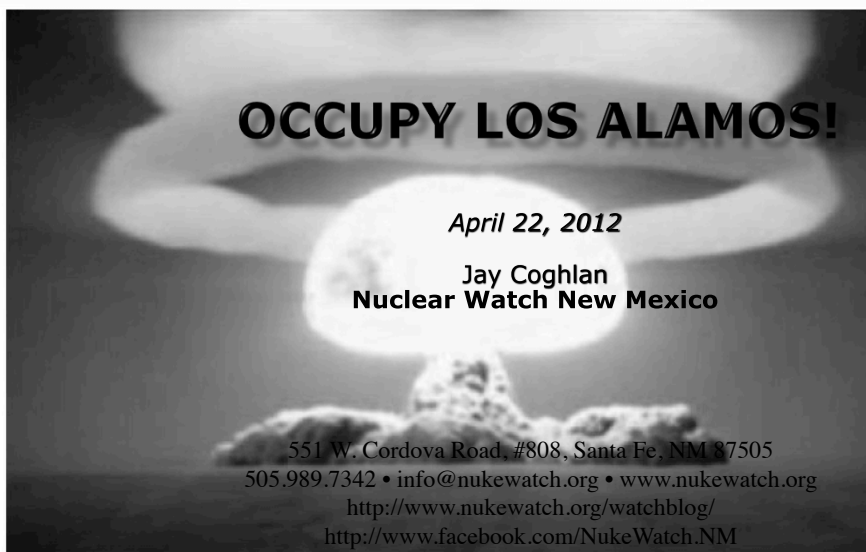


## Central Mission of Los Alamos National Laboratory



## The Land of Enchantment is the 99%

- NM is the only state with a “minority” majority (59.5% of the state’s population).
- NM has the fourth highest poverty rate in the country and the highest percentage (25.8%) of children living in poverty.
- Out of 50 states, NM ranked 43rd in per capita income in 2010 (\$33,267), down from 37th in 1959, despite the vaunted economic presence of the nuclear weapons industry in NM.
- State-wide median household income is \$42,742.
- Santa Fe and Rio Arriba Counties, New Mexico and the nation as a whole, all have to tighten their belts.

## But Los Alamos is the one percent!

- Los Alamos County's population is 76.3% "white persons, not Hispanic." *From 2010 Census Bureau data*
  - Los Alamos County has the lowest poverty and unemployment rates out of 3,142 counties in the country.
  - Los Alamos County had the 2nd highest median household income at \$100, 432. It has the highest rate of millionaires per capita. It was recently ranked as the "healthiest" county in the USA because of benefits.
  - The Los Alamos County government is awash in cash. It received \$47 million in 2009 from gross receipts taxes from Lab operations, while Santa Fe and Rio Arriba Counties got only \$7 million and \$2.6 million each.
- ▣ [http://bber.unm.edu/pubs/LANL\\_EI\\_FY09.pdf](http://bber.unm.edu/pubs/LANL_EI_FY09.pdf)

## The Business of Nuclear Bombs

- New Mexico has always been a nuclear weapon colony for out-of-state interests. The University of California (UC) has managed the Los Alamos National Laboratory (LANL) since 1942.
- In June 2006 Lab management was taken over by Los Alamos National Security (LANS), a for-profit limited liability corporation composed of UC and the Bechtel National, Babcock & Wilcox and URS corporations.
- UC kept majority control of the LANS Board of Directors, but Bechtel takes the most profits. LANS makes ~\$70 million above costs per year (triple UC's past fees).
- "Support costs" (overhead) at LANL are 50% of total costs. *Support Cost Submissions From 28 Contractors, DOE, FY2009, p. 60.*

## Conflict of Interest?: Lab Director & President of For-Profit LLC

- The directors of the 3 nuclear weapons labs (Los Alamos, Sandia and Livermore) wear two hats.
- First as lab directors, when they are required to annually certify that the U.S. nuclear weapons stockpile is safe and reliable.
- Second as presidents of the executive committees of the board of directors of the for-profit limited liability corporations (LLCs) that run the labs.
- Can we be assured that the lab directors are never influenced by for-profit motives?
- Los Alamos Natl. Security, LLC was paid \$83.7 million for FY 2011, 10 x's U. of California in 2005.

## Compensation for Lab Director/ For-Profit LLC President

LANL Lab Director 2011	\$1,081,059	Nearly triple 2005
LANL Lab Director 2009 after privatization	\$800,348	In June of 2006, management of the Lab was awarded to Los Alamos National Security, LLC, a for-profit corporation including University of California, Bechtel Corporation, URS, and B&W
LANL Lab Director 2005 before privatization	\$348,000	Lab managed as a non-profit entity by the University of California until June 2006
Sandia Director 2011 Sandia National Laboratory, Albuquerque	\$1,726,000	Operated by Sandia Corporation, a wholly owned subsidiary of the Lockheed Martin Corporation
LLNL Director 2011 Lawrence Livermore National Laboratory, Livermore, CA	\$500,522	Since 2007 has been operated by Lawrence Livermore National Security, LLC, consisting of Bechtel National, University of California, B&W, Wilcox, URS, and Battelle
NNSA Administrator Directly in charge of the Labs	\$179,700	The National Nuclear Security Administration spends more than \$7 billion annually on its nuclear weapons complex
DOE Secretary Nominally in charge of NNSA	\$199,700	Department of Energy spends around \$26 billion annually, of which 90% goes to private contractors.
President of the United States	\$400,000	
Governor of New Mexico	\$110,000	
Average CEO in Albuquerque, NM	\$204,890	New Mexico Business Weekly, May 16, 2011
CEO Public Service Co. (NM's largest utility)	\$575,000	The Associated Press, April 06, 2012

## **Bechtel, Inc.**

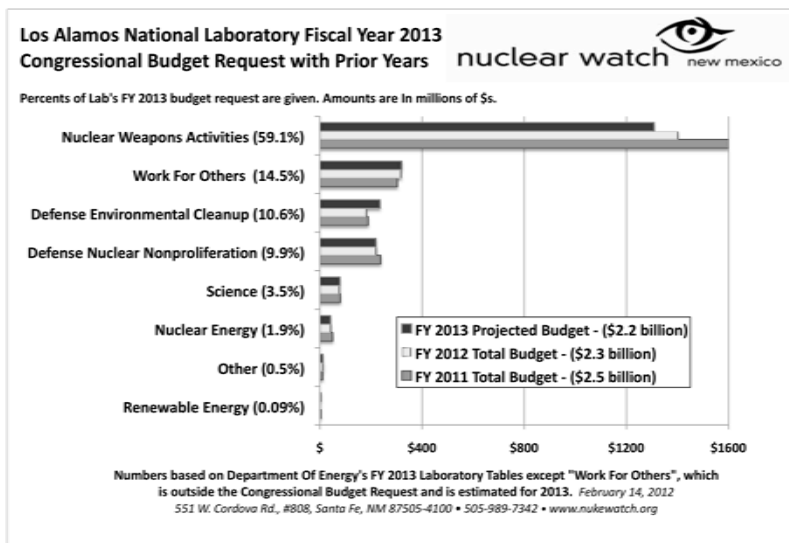
- ▣ • Privately-held Bechtel is the U.S.' largest engineering and construction corporation, with 2010 revenues of \$27.9 billion. It is deeply involved in all things nuclear and much, much more.
- ▣ • Bechtel masterminded privatization of water supplies in Bolivia, resulting in huge cost increases for the poor. Spontaneous mass demonstrations forced the Bolivian govt. to cancel the contract. Bechtel responded by suing Bolivia, seeking \$25 million in damages (final results still pending).
- ▣ • Bechtel had around \$3 billion in reconstruction contracts in Iraq, mostly awarded without competitive bid. In one example, a government audit of a Bechtel project for a hospital in Basra, Iraq found gross mismanagement, and was canceled.
- ▣ • Iraq "reconstruction," in which Bechtel played a major role (or perhaps better put highly profited), remains an abject failure.

## **More Bechtel**

- ▣ • Bechtel is the general contractor for the Waste Treatment Plant at the Hanford nuclear reservation. Costs have climbed from an estimated \$3 billion to \$12.5 billion and counting.
- ▣ • Following a whistleblower case, an independent federal nuclear safety board concluded that "the Hanford Waste Treatment Plant project is not maintaining a safety conscious work environment where personnel feel free to raise safety concerns without fear of retaliation, intimidation, harassment, or discrimination."
- ▣ • Under LANS management (including Bechtel), the proposed new plutonium facility at Los Alamos mushroomed from an estimated \$660 million in 2004 to ~\$6 billion today.

## Contrary to political rhetoric about mission diversification at Los Alamos...

- The Department of Energy requested \$1.9 billion for LANL for fiscal year 2013.
- Estimated \$300 million in funding from non-DOE sources, hence \$2.2 billion total.
- \$1.3 billion for core nuclear weapons research production programs, or 59% of total budget.
- Many other programs indirectly support nuclear weapons programs.
- Only \$2.1 million for renewable energy, or .09%.
- Congress expected to cut cleanup request of \$235 million to \$185 million, or ~8% of total budget.

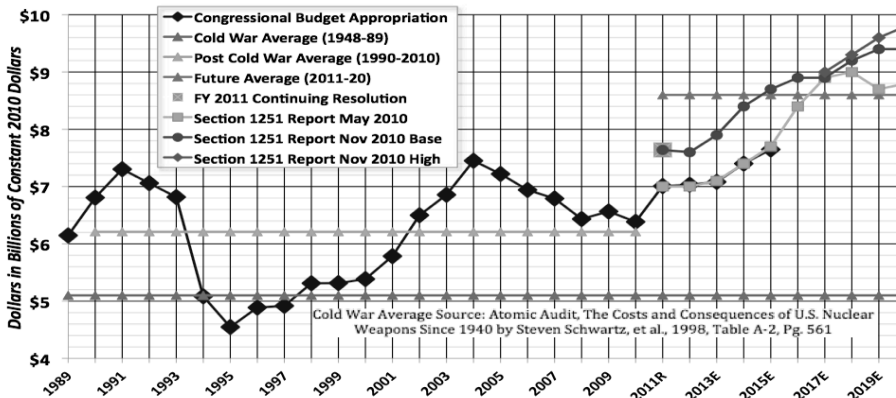


## The Cost of Nuclear Weapons

- The U.S. Dept. of Energy's National Nuclear Security Administration (NNSA) spends more than \$7 billion annually on nuclear weapons research and production.
- In order to secure START ratification the Obama Administration planned to increase annual spending to \$9 billion or more per year by 2018.
- Defense Dept. spends an estimated \$30 billion annually on force structure and delivery systems.
- In all, the U.S. has spent an estimated \$5.8 trillion on nuclear weapons, or \$21,000 per living American.

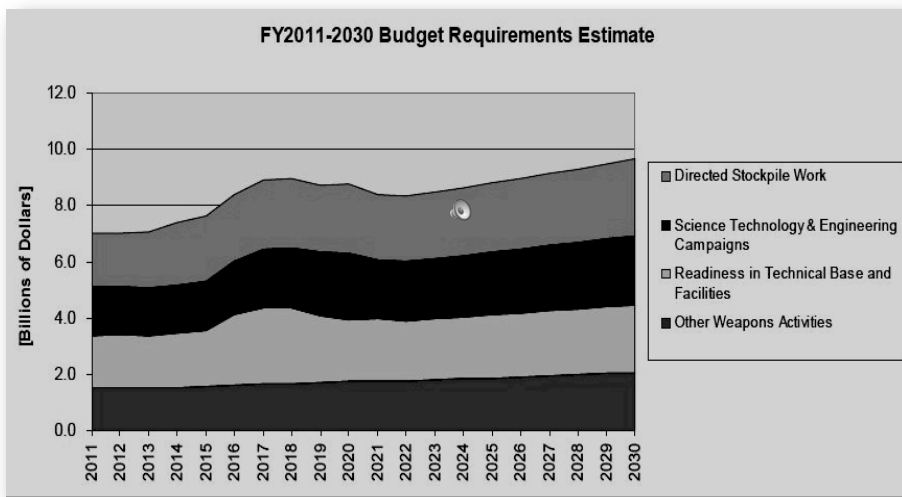
(Source: *Cost of U.S. Nuclear Weapons*, Steve Schwartz, October 2008)

### Follow the Money: Energy Dept. Budgets 1989-2020



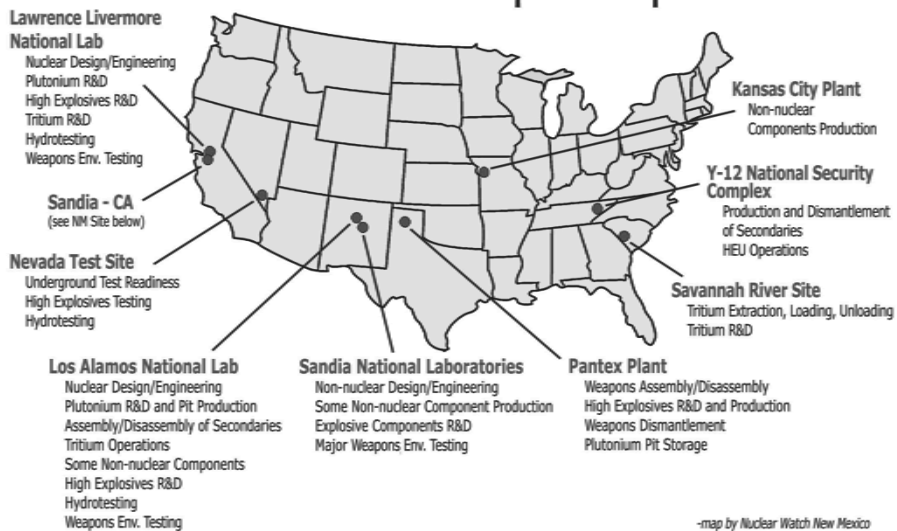
1989-2011 amounts are D.O.E Congressional Budget Appropriations for nuclear weapons research, testing and production.  
2011-2020 amounts are estimates from National Defense Authorization Act FY10 Section 1251 Reports, May & Nov. 2010.

## Nuclear Weapons Budgets Estimated to Rise on to 2030

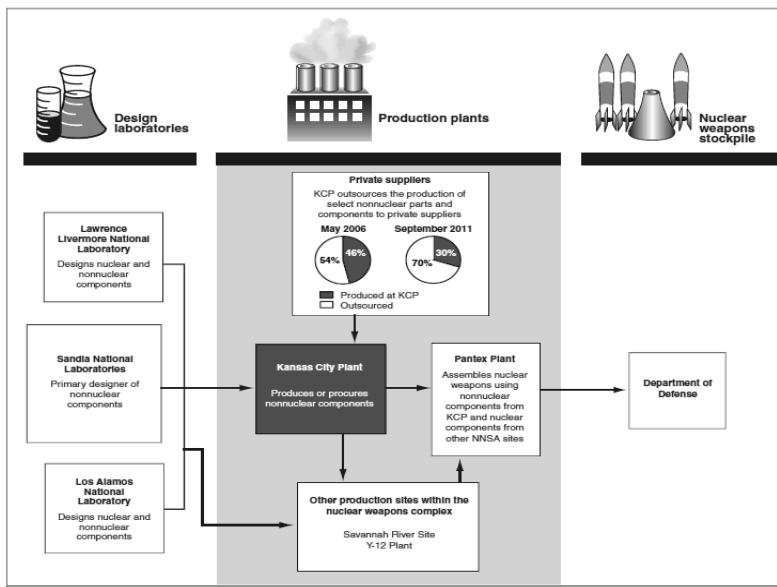


*Graph from NNSA FY2011 Stockpile Stewardship & Mgt. (SSM) Plan, Annex D, p. 66)*

## U. S. Nuclear Weapons Complex



## How the Nuclear Complex Works



## Major New Production Facilities



- Nuclear weapons components can be divided into 3 broad categories: plutonium, uranium and nonnuclear. Major new production facilities are being planned for all 3 types.
- The US will spend ~\$14 billion on these new facilities to expand annual nuclear warhead production capability from 20 to 80 per year.
- The production side of the nuclear weapons complex is being rebuilt, and these facilities are slated to operate until 2075! What does that say about a future world free of nuclear weapons?



## Chemistry and Metallurgy Research Replacement - Nuclear Facility Los Alamos, NM – “Deferred”!!!



- The “Nuclear Facility” was to be the keystone to an expanded plutonium pit production complex at Los Alamos.
- Current cost estimates up to \$6 billion, but still “TBD.”
- Will share via underground tunnel a new vault capable of storing up to 6 metric tons of plutonium with existing production facility.
- “Plan and program to ramp up to a manufacturing capability of up to 80 pits per year in 2022.”

(NNSA FY11 Stockpile Stewardship & Mgt Plan, Summary, p. 24)

Please go to [www.nukewatch.org](http://www.nukewatch.org) for much more information about the CMRR-Nuclear Facility.

## Uranium Processing Facility (UPF) Oak Ridge, Tennessee

18



- Estimated cost up to \$7.5 billion.
- “Ramp up to a production capability of up to 80 canned sub-assemblies by 2022.” (FY11 SSM Plan, Summary, p.24)
- All refurbished weapons in Life Extension Programs receive new secondaries. (Source: 2008 SNM Consolidation Business Plan, NNSA reference document for the Complex Transformation SPEIS)

## New Kansas City Plant Missouri

19



- Responsible for 85% of all nuclear weapons components.
- It is now nearing completion and will cost taxpayers \$1.2 billion in lease costs alone over 20 years.
- Owned by Kansas City MO municipal government while the private developer pays off municipal bonds through a 20-year lease-to-purchase agreement.
- There are now also federal "transition" costs of ~\$80M/year until at least 2014.

## New Production Facilities Are Not Needed

- The workload of the new plants were originally predicated on new-design Reliable Replacement Warheads (RRWs) and massive Life Extension Programs.
- Congress and the President have rejected RRWs.
- Current capacity is 20 new warheads/year. These new facilities create a 80 warhead capability per year.
- The CMRR-Nuclear Facility has no stated or immediately obvious role in dismantlements. KCP "dispositions" some parts. Future rate of CSA dismantlements at the UPF are not publicly known. Bottom line: these new facilities are not geared toward dismantlements.



## More Nuclear Weapons, But Less Jobs

- Because of increased automation and outsourcing, the privately financed new Kansas City Plant (KCP) will cut jobs from 2,400 at the old Plant to 2,100 at the new Plant (a 13% loss in jobs).
- The Uranium Processing Facility will help keep 5,100 jobs at the Y-12 Plant near Oak Ridge, TN, down dramatically from the site's current 6,500 jobs (a 22% loss).
- The CMRR Project at Los Alamos would have resulted in ZERO new permanent jobs. That's because it will merely relocate already existing Lab jobs from one location to another. It would have, however, produce an average of 420 construction jobs over 9 years, but that's all we get for ~6 billion in taxpayers' dollars.

Pathetic. Imagine if that money was invested in real job creators, such as comprehensive cleanup and renewable energies (instead LANL has zeroed out renewables and Congress has cut requested cleanup funding in half).

*Sources: Final Kansas City Plant Environmental Assessment, NNSA/GSA, April 2008, P. 85; Y-12 Final Site-Wide Environmental Impact Statement, NNSA, February 2011, P. S-37; Final CMRR-Nuclear Facility Supplemental Environmental Impact Statement, NNSA, August 2011, P. S-47.*

## Heather, you really want jobs?

- GOP Senate candidate Heather Wilson has repeatedly claimed that CMRR postponement will result in the loss of 1,000 jobs for 10 years.
- Los Alamos Lab estimates that full cleanup of its radioactive waste dump would take 108 million labor hours at a cost of \$13 billion. This is the equivalent of 2,700 high paying jobs for 20 years. We think that high, but that's their numbers.
- Nuclear weapons jobs lead to a dead end, but real cleanup could fund hundreds of high paying jobs while permanently protecting our precious groundwater and the Rio Grande, a big win-win for New Mexicans.
- Conclusion: Heather, if you really want jobs, push for cleanup!

## Extending the Lifetimes of Nuclear Weapons

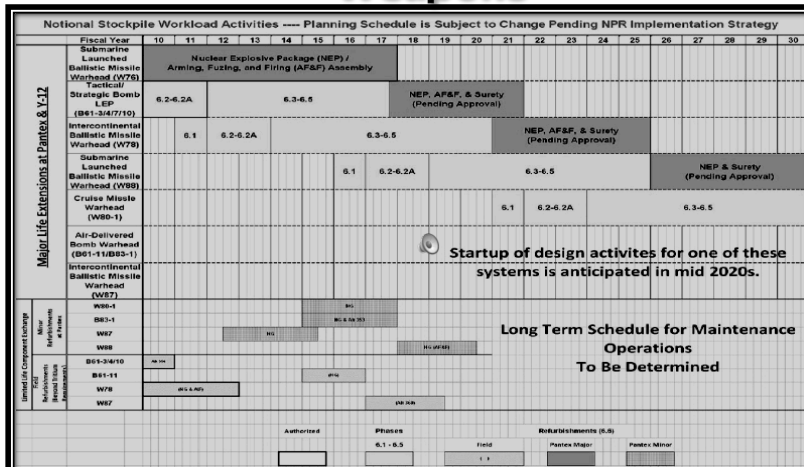


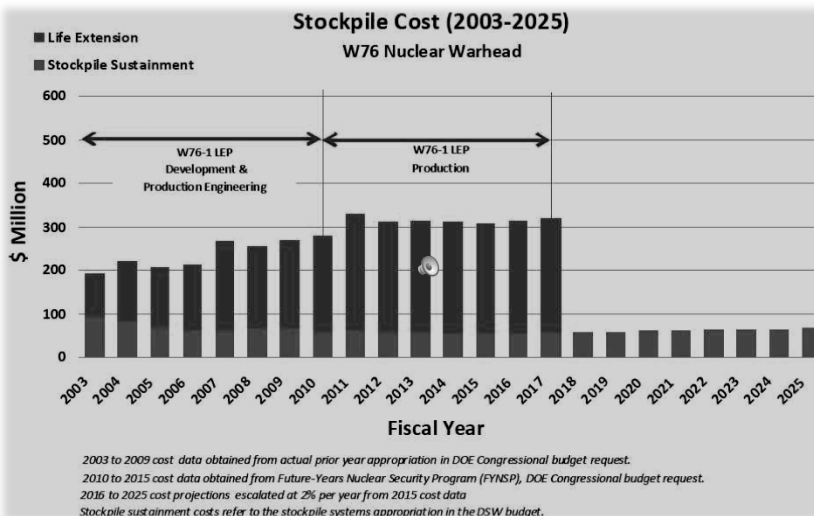
Figure A-1-12. Schedules for Extending the Life of the Nation's Nuclear Deterrent (extensive revisions to this schedule, as a consequence of the 2010 Nuclear Posture Review process, are in progress).

May 2010

U.S. Department of Energy

(FY11 SSM Plan, Summary, p. 24)

## W76 LEP Will Cost \$4 Billion



Future B61 and W78 LEPs are slated to cost ~5 billion each

(FY11 SSM Plan, Summary, p.11)

## New Military Capabilities?

"The United States will not develop new nuclear warheads. Life Extension Programs will use only nuclear components based on previously tested designs, and will not support new military missions or provide for new military capabilities."

*(U. S. 2010 Nuclear Posture Review and numerous USG statements)*

But the head of Naval Strategic Systems wrote in 1997 that the refurbished 100 kiloton W76-1 would be transformed into a hard target killer, one that is a "counterforce" weapon against military assets, rather than a "countervalue" ("city-buster") weapon of deterrence. *(Source: "Strategic Systems Update," Rear Adm. Pete Nanos, 1997,*

*<http://www.fas.org/blog/ssp/images/W76nanos.pdf>)*

Officials at the highest levels of the federal government have indicated that a modified U.S. nuclear weapon, no matter how profoundly changed, does not have "new" military capabilities as long as it assumes the mission of another existing nuclear weapon.

But clearly if a lower-yield (therefore more "usable") nuclear weapon assumes the mission of a higher yield weapon, then that in and of itself is a new military capability. Cases in point: 350 kt. earth-penetrating B61-11 substituting for 9 mt. surface burst B53; 100 kt. W76 warhead possibly substituting for 450 kt. W88 warhead.

## W76 LEP Creates a Weapon with New Military Characteristics

New **Arming Fusing & Firing** system being produced now at the Kansas City Plant is believed to endow the warhead with a more precise selectable height of burst.



## **Modernization as it *Should Be***

- 1993 Sandia Stockpile Life Study
- Curatorship
- Certification
- Dismantlements
- Other initiatives that support arms control and disarmament

## **The 1993 Sandia Stockpile Life Study**

- "It is clear that, although nuclear weapons age, they do not wear out; they last as long as the nuclear weapons community (DoD and DOE) desires. In fact, we can find no example of a nuclear weapons retirement where age was ever a major factor in the retirement decision."
- "Missions, policy, standards, delivery systems, and state-of-technology change; however, nuclear weapons do not wear out."
- "The more significant question is 'what does it take to sustain a weapon while it is in the stockpile?'"
- "A survey of all the changes that have been made to stockpiled weapons and associated equipment indicates that about half of these changes were performed at the request of the user."

(1993 Sandia Stockpile Life Study)  
[http://www.nukewatch.org/facts/nwd/Sandia\\_93\\_StockpileLife.pdf](http://www.nukewatch.org/facts/nwd/Sandia_93_StockpileLife.pdf)

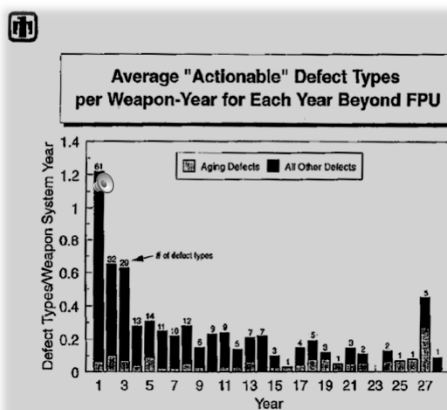
## Deceptive Rationale: "Stockpile Stewardship" Needed Because of Loss of Testing

- DOE: "[N]o underground testing, and no new-design nuclear weapons production, means that the weapons will age beyond original expectations and an alternative to underground testing must be developed to verify the safety and reliability of weapons."
- Stockpile Study: "The Stockpile Evaluation Program does not include underground nuclear testing."
- Stockpile Study: "No defects were discovered in "Stckpl Confid UGT" [Stockpile Confidence Underground Tests]."

(1993 Sandia Stockpile Life Study)  
[http://www.nukewatch.org/facts/nwd/Sandia\\_93\\_StockpileLife.pdf](http://www.nukewatch.org/facts/nwd/Sandia_93_StockpileLife.pdf)

## Stockpile Stewardship Rationale and the Non-existent Upwards "Bathtub Curve"

The 1993 Stockpile Study graphs a radical downward curve over 28 years in which the overwhelming majority of nuclear weapons defects were design and initial production flaws that were detected and corrected in the first 2 to 5 years of production.



(1993 Sandia Stockpile Lifetime Study, pdf-p.8)  
[http://www.nukewatch.org/facts/nwd/Sandia\\_93\\_StockpileLife.pdf](http://www.nukewatch.org/facts/nwd/Sandia_93_StockpileLife.pdf)

## Stockpile Stewardship Rationale?

The National Nuclear Security Administration has yet to show that serious nuclear weapons defects have occurred that routine, long established maintenance programs can't detect and correct.

~\$90 billion has been spent on the Stockpile Stewardship Program to date. Despite that the Comprehensive Test Ban Treaty remains unratified, and the design labs have claimed that long-term stockpile reliability cannot be guaranteed without new-design nuclear weapons.

## JASON: Pit Lifetime Study

"Most primary types have credible minimum lifetimes in excess of 100 years as regards aging of plutonium; those with assessed minimum lifetimes of 100 years or less have clear mitigation paths that are proposed and/or being implemented."

- This study occurred because Nuclear Watch NM asked Sen. Jeff Bingaman to legislatively require it.
- The JASONS are independent scientists who act as consultants to the federal government. Their finding was crucial because previously the government was claiming that plutonium pits last only ~45 years.
- This new information helped defeat aggressive proposals for new-design nuclear weapons and expanded plutonium pit production based on limited pit lifetimes.

[JASON] Pit Lifetime, Nov. 20, 2006)  
[http://www.nukewatch.org/facts/nwd/JASON\\_ReportPuAging.pdf](http://www.nukewatch.org/facts/nwd/JASON_ReportPuAging.pdf)



## **JASON: Lifetime Extension Program (LEP) Report**

- Lifetimes of today's nuclear warheads could be extended for decades, with no anticipated loss in confidence, by using approaches similar to those employed in LEPs to date.
- Found no evidence that accumulation of changes incurred from aging and LEPs have increased risk to certification of today's deployed nuclear warheads.

*[JASON] Lifetime Extension Program (LEP) Executive Summary, September 9, 2009*  
[http://www.nukewatch.org/facts/nwd/JASON\\_ReportLEP.pdf](http://www.nukewatch.org/facts/nwd/JASON_ReportLEP.pdf)

## **"Curatorship" Approach is Needed**

As we reduce the stockpile, NNSA should prioritize nuts-and-bolts surveillance.

"After all, if one truly wanted to maintain a vintage 1950 automobile today, well beyond its design life, the greatest need would be for excellent mechanics, not a new automobile design team."



*The Nuclear Safety Smokescreen, by H. Zerriffi, and A. Makhijani, 1996)*

## **NNSA Should Prioritize Nuts-and-bolts Surveillance**

"The surveillance program's role in assessing and assuring confidence in the reliability of the weapons stockpile is increasingly important as the nuclear weapons stockpile ages. However, as a result of the continuing backlog of surveillance tests, the Department lacks vital information about the reliability of the stockpile."

*DOE Inspector General*

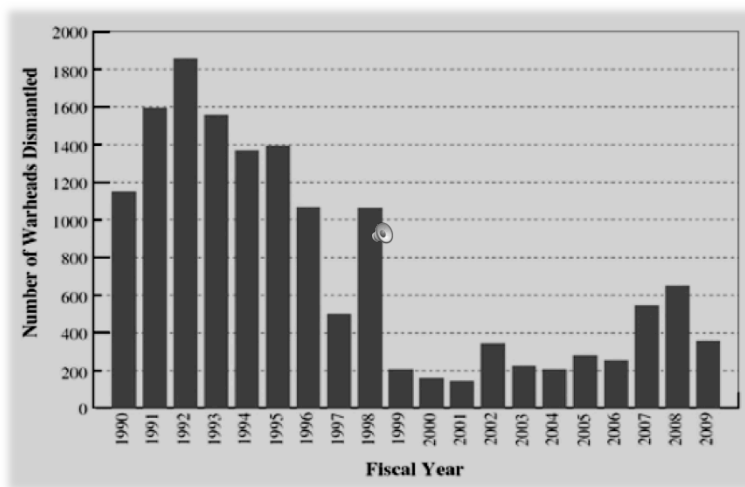
The "Enhanced Surveillance Program" and replacement-as-needed of limited life components can reliably maintain the U.S. stockpile while global nonproliferation objectives are being progressively worked toward.

## **Ongoing Limited-Life Component Exchange Activities**



Many age-related changes affecting various nuclear warhead components are predictable and well understood. These components are replaced periodically throughout the lifetime of the weapon.

## Dismantlement Rates



Graph by Nick Roth, UCS, data from May 3, 2010 U.S. Govt. "Fact Sheet: Increasing Transparency in the U.S. Nuclear Weapons Stockpile"

## Increase Dismantlements!

- "Concurrent with the life extension activities described above, NNSA continues the ongoing work of disassembling and dismantling retired stockpile weapons. The intent is to complete, no later than FY 2022, the dismantlement of all systems retired prior to FY 2009."

*FY11 SSM Plan, Annex A, p. 20*

- Backlog does not include more weapons that will be retired under new arms control treaty.

Dismantlement funding levels (in \$millions):

FY08	FY09	FY10	FY11	FY12	FY13
55.41	52.70	96.10	57.97	56.59	51.27

## Please Get Active

### Why Bother? Because



- The nuclear weaponeers want to build up their bomb production complex, not clean it up.
- Real security: clean up; build schools, hospitals, infrastructure; fund nuclear weapons nonproliferation programs leading to abolition.
- Hassle your congressional delegation, make your opinions known, write letters to the editor, support your local organizations.
- Democracy is a muscle. Use it or lose it!  
**OCCUPY LOS ALAMOS!!!!**



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