# Weapons Labs and the Future of New Mexico: Problems, Prospects, Messages

May 15, 2007 Greg Mello\*

We have had the bomb on our minds since 1945. It was first our weaponry and then our diplomacy, and now it's our economy. How can we suppose that something so monstrously powerful would not, after years, compose our identity? E.L. Doctorow

Only he who knows the empire of might and knows how not to respect it is capable of love and justice. Simone Weil

\* with help from many people, especially Trish Williams-Mello, who isn't responsible for the remaining errors



### This briefing will have three parts, with questions, answers, and discussion after each part.

### A. The Department of Energy (DOE) labs in the New Mexico (NM) economy: problems and prospects (20 minutes + 20 minutes discussion)

- How do these labs influence New Mexico's economic prospects, and how might they do so in the future?
- Can the New Mexico labs lead in energy research and other non-defense missions?
- How might changes at these labs build businesses in New Mexico?

### B. Nuclear policies at the crossroads: federal and New Mexico choices (15 minutes + 10 minutes discussion)

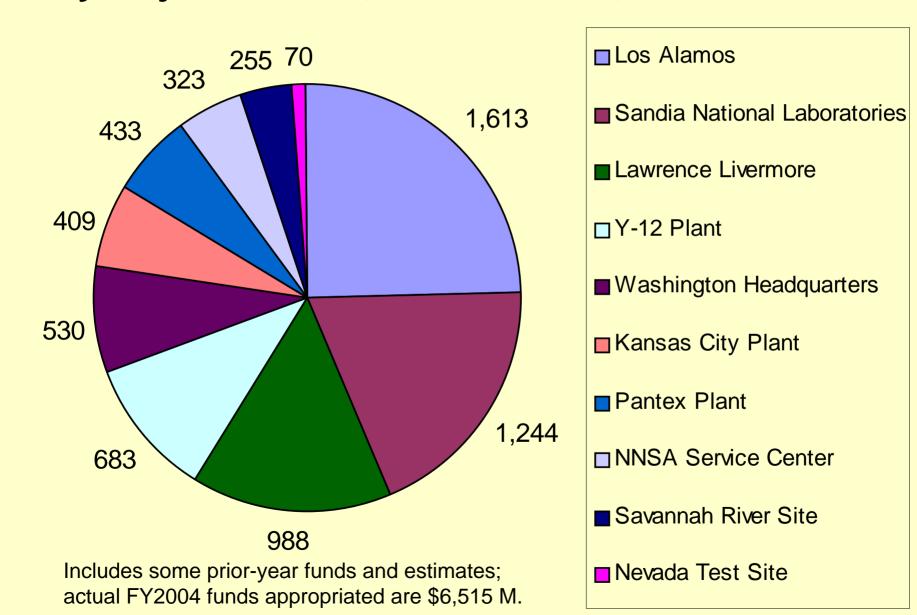
- What is the situation in Congress and the Executive Branch today with respect to these labs?
- How do New Mexico political factors affect weapons and nonproliferation policies?

### C. What can and should New Mexico leaders do? Some effective messages and actions (20 minutes + 20 minutes discussion)

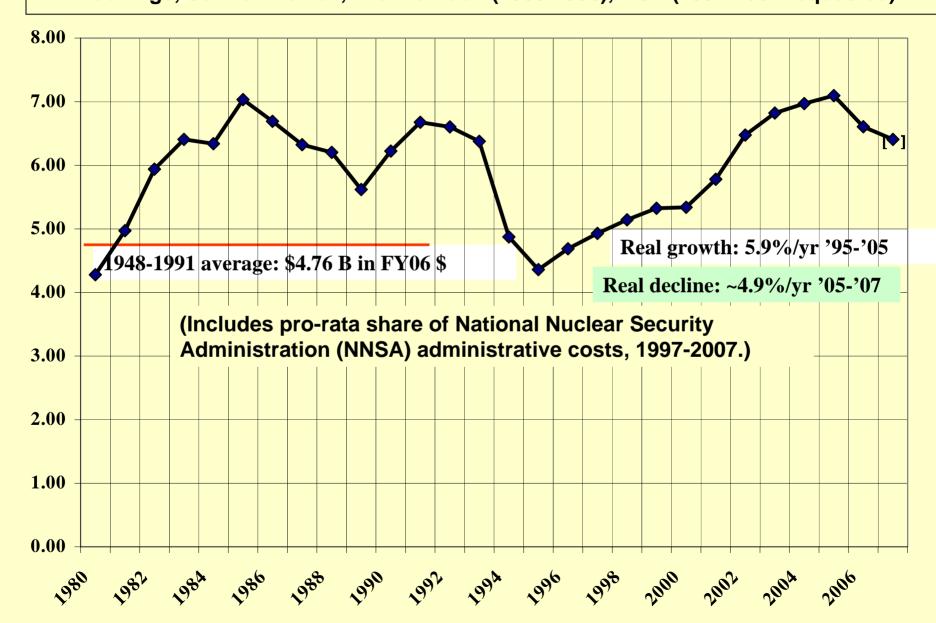
- What decisive, positive steps can be taken by New Mexico community leaders?
- What messages will resonate where it matters, and how can they be delivered?
- How can these messages be used in the current work and priorities of community leaders?



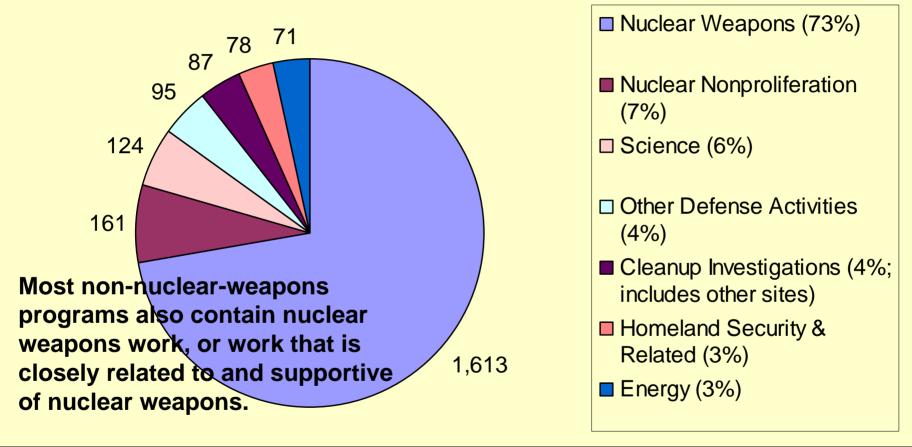
# NNSA Nuclear Weapons Funding in Millions by Major U.S. Site, FY 2004 -- \$6,547 M in all



### DOE Nuclear Weapons Activities Spending, 1980 – 2007 (2006 \$) Brookings, Schwartz et. al., *Atomic Audit* (1980-1996), DOE (1997-2007 requested)

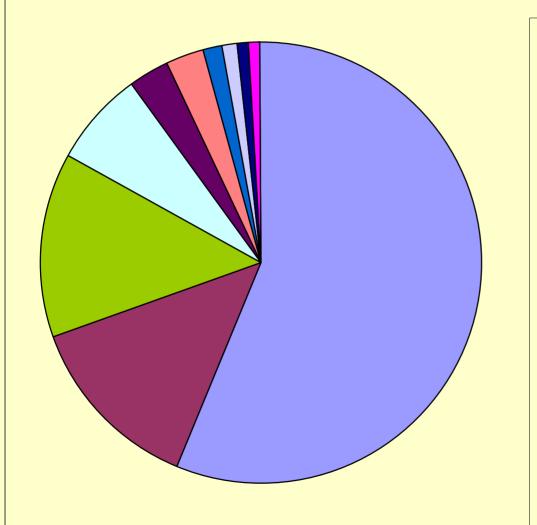


# Los Alamos National Laboratory and Site Office FY 2004 Funding in Millions (All Sources): \$2,229 M (includes \$200 M unspent prior funding)



Fiscally (and culturally), LANL is a nuclear weapons lab and not much more. This focus is likely to increase as budgets decline.

# Sandia National Laboratories & Sandia Site Office FY 2004 Funding, All Sources, \$2,221 M



- Nuclear Weapons (\$1,244 M)
- Armed Services, DOD, & Other Defense (\$301 M)
- Unknown (\$298 M)
- Nuclear Nonproliferation (\$58 M)
- Science (\$66 M)
- Energy (\$60 M)
- Non-Federal (\$31 M)
- ☐ Cleanup (\$22 M)
- Homeland Security Agency (\$22 M)
- Other Federal Agencies (\$18 M)

#### NM ranks among the very poorest and most backward states.

#### Poverty

- 3-year-average rates for 2002-2004 show that the poverty rate for Mississippi (17.7 percent) was not statistically different from those for Arkansas, Louisiana, New Mexico [17.5%], Texas, West Virginia, and the District of Columbia. <u>This cluster of rates was significantly higher than rates for the other 44 states</u> (Census Bureau, CB). <u>About 330,000 people in NM live in poverty.</u>
- Corporation for Enterprise Development (CFED) shows NM in bottom 3 states with MS and LA (2007).
- Extreme poverty: NM ranks 3<sup>rd</sup> in extreme poverty at 7.8% of total population (CB, confirm), again with #1 MS and #2 LA. About 150,000 people live in extreme poverty in NM.
- **Overall health**: *NM ranks #49* (Morgan Quitno Press, MQ, 2007). Richardson years average ranking = 48.2; Johnson years = 36.5, King years (only 2 years) = 24.5, a decline of ~12 states per governor.
- Overall most dangerous: <u>NM ranks #2</u> (MQ, 2007)
- Overall child welfare: <u>NM ranks #48</u> (Annie E. Casey, "Kids Count," 2003/2004)
- Per capita income: NM ranks 47th in both 2004 and 2005 (CB)
- Income disparity: NM ranks 46th in income disparity (ratio of mean income of bottom quintile to that of top quintile, CFED)
- **Growth in income disparity**: *NM ranks 43<sup>rd</sup> in growth in income disparity* (CFED)
- Overall social health: NM has been ranked the worst of all states twice running (Fordham University)

Six states (plus DC) are the poorest of all; three of these, including NM, also have the highest rates of extreme poverty and the worst overall health rank. Of these bottom-tier states only NM is also ranked among the three most dangerous states. NM educational performance is also at or near the bottom by many measures.

#### Yet NM receives more net federal funds/capita than any other state.

- <u>This has been the case since at least 1981</u>. New Mexicans get an average of \$2.00 back for every \$1.00 in taxes paid. <u>In 2006 NM paid \$11 billion (B) and got \$22 B</u>. Of the \$11 B paid, about \$4.85 B (~44%) will go for federal military expenditures (such as the NM labs and bases).
- <u>In 2004 federal funds directly accounted for 29% of NM gross state product</u> (GSP, ~ = total personal income). With secondary spending, federal funds account for over half the total NM economy.
- <u>High rates of federal spending in NM have not led to positive economic outcomes.</u> This is a fact, not an opinion. There is no evidence that high levels of federal spending are good for NM.
- Federal spending in NM is spread widely over the entire state and also concentrated in 8 locations: 2 DOE labs, the NNSA National Service Center in Albuquerque, the Waste Isolation Pilot Plant (WIPP), and 4 military bases.
- Looking at net federal military spending in each county, most NM counties will pay more in military taxes than they receive in military spending (military spending + NNSA spending + commuter payroll and procurements moving across county lines). Only Los Alamos County gets more in military spending than non-military spending.
- Since 1943, some \$69 B has passed through Los Alamos National Laboratory (LANL) in constant 2007 dollars (LANL, LASG). Very approximately \$45 B has passed through Sandia National Laboratories (SNL). Overall the Department of Energy (DOE) has spent roughly \$120 B in NM in today's dollars, less than 2% of the more than \$7,000 B the U.S. has spent on nuclear weapons.
- The \$4.29 B spent by DOE in NM in FY2006 was ~ 5.7% of GSP that year. In 2005 the ratio of DOE spending in NM to GSP was 5 times greater than the next most "DOE-dependent" state (SC); 6X greater than in TN; 7X greater than in NV; and 41X greater than in CA.

NNSA Weapons Activities (WA) spending in NM in 2005 was 4.3% of GSP. <u>The ratio of WA spending to GSP in NM is more than 11X greater than in the next-ranking state (TN)</u>; 13X greater than in NV; and 64X greater than in CA. <u>Although NM economic outcomes have been very poor, perception otherwise has made NM preeminently important as a political haven for nuclear weapons.</u>

#### Federal spending patterns in three NM counties near LANL (2004)

#### **Taos**

- \$222 million (M) total federal spending
- \$8.3 M (3.7%) from LANL commuters + procurement
- \$7.7 M (3.4%) other military spending
- 11% of federal spending was military (all sources)
- \$197 M in non-military federal spending
- LANL contributes only 1% of total personal income (TPI) in Taos County.

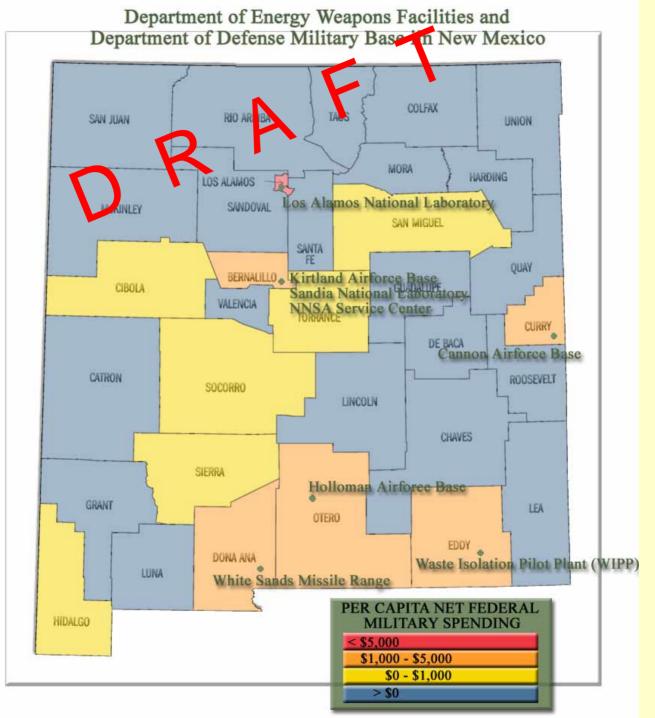
#### **Rio Arriba**

- \$491 M total federal spending
- \$175 M (36%) from LANL (commuters + procurement)
- \$316 M non-military federal spending
- LANL spending is 20% of TPI in County; non-military federal spending is 36% for a total federal TPI share of 56%, a high number.
- Non-military spending is much more important than military spending (including LANL) in Rio Arriba County.

#### Santa Fe

- \$1,430 M total federal spending
- \$246 M (17%) from LANL commuters + procurement
- \$60 M in other military spending
- \$1,124 M in non-defense federal spending
- Of Santa Fe County TPI of \$4,300 M, LANL spending is 5.1%.

- All three counties are less dependent on military and LANL spending than on non-military federal spending.
- If LANL dried up and blew away tomorrow, and nothing at all was done to mitigate or turn this event to advantage, how long would the economic impact linger in Taos County? In Santa Fe County? What if a decline in LANL's fiscal fortunes were accompanied by growth in other federal priorities, e.g. education, public infrastructure, or energy efficiency?
- LANL is not solving Rio Arriba County's woes. It may exacerbate them.

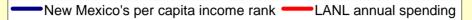


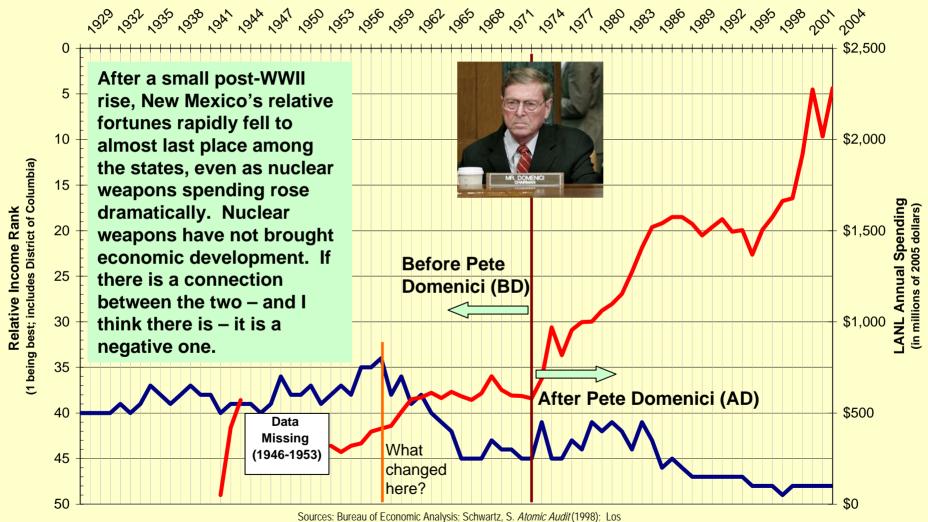
Military spending is localized; military taxation is everywhere.

Most NM counties LOSE in the military "pork game."

(This DRAFT analysis and map do not include the effects of commuting.)

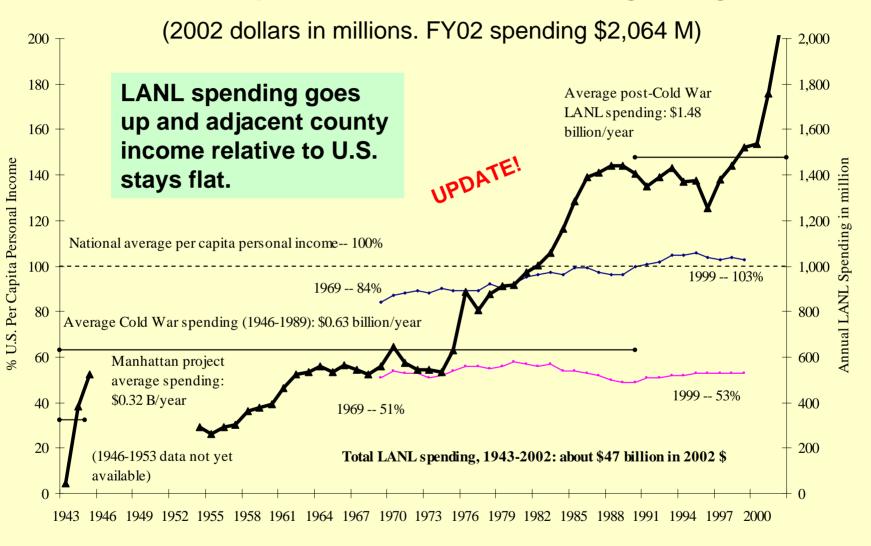
### Per Capita Personal Income in New Mexico relative to the U.S. as a whole (1929-2004) with Los Alamos National Labs (LANL) annual spending (1943-2004)





Sources: Bureau of Economic Analysis; Schwartz, S. *Atomic Audit* (1998); Los Alamos National Laboratory; and Los Alamos Study Group.

### Historical Los Alamos Site (Site Y, LASL, LANL) Spending, 1943-2002, with Relative Per Capita Personal Income in Two Neighboring Counties



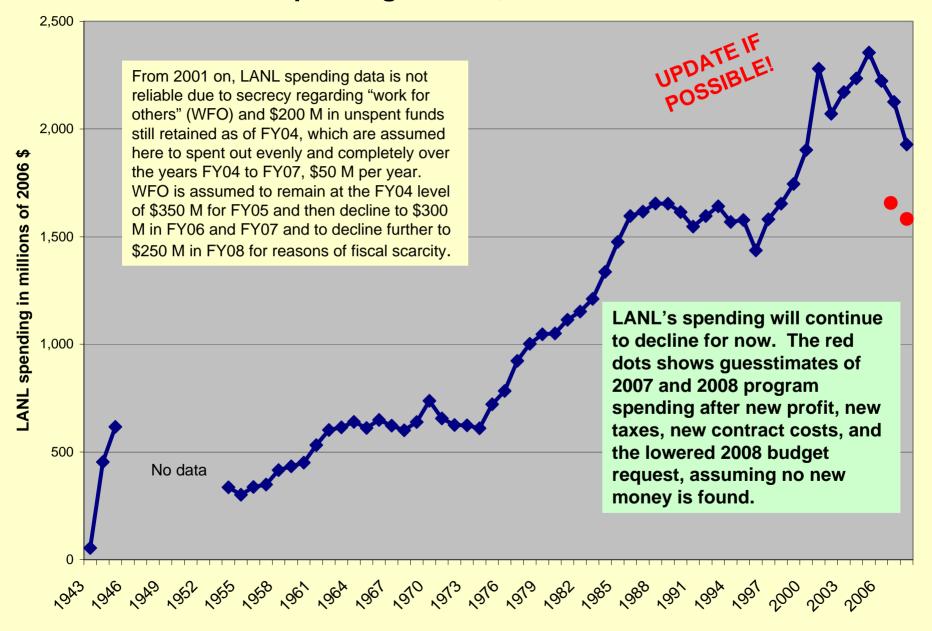
Year

Santa Fe County

LANL Spending

Rio Arriba County

#### Historic LANL spending to 2006, estimates for 2007 and 2008



### Why does LANL fail to produce economic development? (1) And what exactly does SNL do for New Mexicans?

(We must leave the second question, the more subtle of the two but illuminated by the LANL case, until another time.)

- Popular and official "economic development" (ED) discourse is primitive and confused, filled with false economic assumptions, politically-expedient euphemisms, and broad denial of reality. There is no hope of improving NM's economic or social performance within such a system of discourse. It's been tried.
  - <u>Neither "jobs," as in "more jobs" or "high-paying jobs," nor "economic growth," comprise economic and social development.</u> For example, poverty *increased* in Silicon Valley during the boom years, and deep poverty also increased *throughout CA* during those same years. I believe it could be shown that increases in jobs in NM counties have had little or no effect on poverty.
  - <u>Economic development is not accounting ("2 jobs are better than 1;" "\$2 is better than \$1").</u> Political, cultural, social, institutional, environmental and we are saying on this slide and throughout this talk, intellectual factors loom very large.
  - While public <u>ED discourse assumes a nearly-pure capitalist/consumerist framework</u>, it also ignores the realities of competition and consumption and is silent about the realistic measures that could be taken to build wealth, equity, ownership, and security in NM.
  - Even terms like "THE economy" are fictional, as noted by Gunnar Myrdal decades ago.
  - Assumptions of fatalism and habits of complacency must be exposed and overcome. <u>Significant improvements will require big, bold policy changes</u>, which are nowhere on the horizon even as ideas.
  - New external factors are exerting magisterial control and NM will rise or fall as it chooses how to respond to them. These include climate and weather, energy, imperial overreach and rapid decline, disease, and muscular efforts by national security institutions, e.g. the NM DOE labs, to take greater control. *The "American Way of Life" is over* and NM's future, like that of the U.S. as a whole, will lie within a far more materially-constrained reality subject to a variety of major hazards.

#### Why does LANL fail to produce economic development? (2)

- Neither economic nor social development are core goals of the DOE or its contractors. LANL especially is a species of extractive industry, requiring: a compliant labor force, regulatory climate, and journalists; secrecy and isolation to do what it pleases; ample land to pollute; and <u>privileged</u> access to amenities <u>and a social and economic hierarchy</u> to attract and keep technical staff and managers. <u>To manage shame it is essential for LANL as an institution, and for Los Alamos County, to maintain an elitist identity, which must be anchored in real and dramatic differences in economic and social privilege.</u>
- <u>NM has weak political institutions</u>. The DOE labs, like other NM extractive industries, seek and exert enormous, determinative influence over NM's political leadership: electoral, legislative and executive, <u>and, especially, intellectual</u>. This is easy to do because there are so very few people and institutions in any leadership category, in government or out. <u>Both labs' intellectual influence is deeply right-wing.</u>
- NM has weak civil society institutions. In the mid-1990s LANL devised a conscious strategy to "own" or at least neutralize as many of these as possible and has pursued this in many ways.
- In every case I can think of, <u>the intellectual contribution of the DOE labs to NM political and cultural life</u>, mostly undertaken for public relations but in theory having the potential to aid, <u>has been poor and counterproductive</u>. The presence of weapons lab representatives on <u>any committee convened for any purpose usually assures mediocrity or failure</u>. Usually this is because the people involved know little or nothing about the subject matter involved yet wield great power; often LANL interests are directly involved. Corporate paternalism elsewhere in the U.S. is not always this sterile and sterilizing.
- The <u>DOE and its labs and contractors, among others, have badly damaged intellectual inquiry at UNM</u>. A climate of fear and complacency (both, and by no means wholly caused by the labs), is pervasive. There is essentially no inquiry at UNM in most of the topic areas that could lead NM to a better future.
- <u>The DOE labs help lead the way in creating and normalizing economic and social stratification in NM</u>, poisoning the engaged noblesse oblige required for smart ED and social comity. <u>Economic disparity</u> and the "aura of apartheid" that is its geographic expression is a powerful cause of social and economic <u>decline</u>.

#### Why does LANL fail to produce economic development? (3)

- <u>LANL's high salaries distort the regional labor market</u>, powerfully drawing much available talent (part of the "upas tree" effect). LANL thins the ranks of potential entrepreneurs in the same way ("Why bother?").
- <u>LANL's technologies are mostly enormously specialized</u> and <u>of interest only to government</u>, they are usually secret and often toxic or otherwise dangerous. They seldom "spin off" and if they do they seldom remain in NM, or remain here long.
- Most technical staff acculturate quickly to LANL, losing more widely-applicable and generic skills if they had them as well as the ability to function well outside the "cost-is-no-object" world.
- <u>LANL draws few high-end scientists and engineers; most are third-rate</u>. They self-select for tolerance to intrusive authority and a willingness to develop weapons of mass destruction (WMD).
- LANL (and SNL) mostly hires in fields not known for the development of biophilia (Wilson) or "reverence for life" (Schweitzer), and cultivates their opposite. There are special problems with the physical worldview. LANL- and SNL-specific problems are specific examples of society-wide problems in technical education and training as well as in the culture of "technoscience" generally.
- LANL's (and SNL's) procurement needs are often far more specialized than NM can supply.
- <u>LANL</u> (and SNL) <u>workers bid up the price of local goods, e.g. land and housing</u>, in important markets.
- <u>LANL pollutes</u>. The total pollution emplaced at LANL increases constantly without permit, regulation, external oversight, or plan to remove. LANL, in the Santa Fe metropolitan area, operates the largest nuclear disposal site in NM, TX, AZ, and CO. This chronic pollution is not a current physical health issue but it is a potent and universal symbol of broader moral turpitude and failure, affecting the whole region.
- <u>LANL produces danger</u>. That is its mission. *Risk* and *hazard* perceptions affect markets and locational decisions by individuals and firms. Perceptions combine to form *reputation* (from outside) and *identity* (on the inside). Both are major determinants of regional ED potential. It is *perceived, relative* attractiveness compared to competing regions, not any kind of "scientific" and "adequate" purity and safety, which matter.

#### Why does LANL fail to produce economic development? (4)

- <u>LANL</u>, which is a) secret and b) devoted to WMD, <u>produces jobs without public meaning</u>. There is no positive story, which means no story at all. <u>LANL can never be a source of community pride and identification.</u> Depression, stress, and very serious youth problems are symptoms of this "black hole."
- <u>LANL's</u> a) unusually <u>high salaries</u>, b) high internal salary differentials (which map closely onto racial and geographical identities), c) and largely foreign (to NM) workforce <u>damage regional social cohesion</u>. For ED purposes social cohesion is often the most important single internal resource available and is necessary for any and all autonomous, effective solutions to community-wide problems.
- <u>High salaries provide less efficient regional "multiplier" effects</u> than lower ones on a per-dollar basis. More luxury purchases, savings, pension dollars, and higher education spending, on a per-dollar basis, leave NM from its wealthier households.
- <u>Lab spouses</u>, generally well-educated and supported by stable, high-income spousal income, <u>compete</u> <u>effectively for jobs in our communities</u>, <u>cutting career opportunities for people working up from poverty.</u>
- <u>LANL imposes large fiscal costs on local and state government</u> in residential impacts, governance, transportation infrastructure, etc. Do LANL and its employees pay this much in taxes, even now? The labs, especially LANL, also use up *attention*, a subtle, distinct, and very limited resource in government.
- <u>Most LANL technical staff came from elsewhere</u> and most of their educated children go elsewhere when they grow up. This NM-wide problem is surely worse for LANL technical staff.
- <u>LANL (and SNL) bring relatively few venture capital dollars to NM</u> (for reasons previously mentioned).
- Many of these negative regional economic effects are synergistic with each other, cause secondary problems, or exacerbate independent and prior problems in a complex and negatively resilient way. <u>The theory</u>, often proffered privately, that NM would be "even worse off" without the DOE labs is exactly the justification that colonial administrations always use. Its insulting tone reveals both the abuse in the situation and the degree to which our intellectual life has been overtaken by the comprador mentality.



# How could changes at the DOE labs, and in our relations to them, help achieve economic development goals? (1)

First, what are economic development goals? I suggest:

- <u>The proper ED goals are first of all social development (SD) goals</u>, of which ED is an aspect, and for which, a means. These include access to quality health care, physical and economic security, freedom from poverty, successful education, political enfranchisement, ownership (of one's home and means of subsistence), and more. If "social" is a bad word (as in "socialist"), "human" development might work.
- <u>Proper ED goals also centrally include environmental stewardship (ES) goals</u>, which are key to economic as well as to social development success. These three kinds of development (ED, SD, and ES) qualify, limit, and enable each other. (Mapping this relationship must be left to another occasion).
- <u>Central among all these is the alleviation of poverty</u>. This has not been a goal of NM government for a long time if ever, really. <u>Exclusion of the poor is the central political problem in NM</u>; <u>alleviation of poverty is NM's best simple, central development goal</u>, around which the rest can constellate.

We will not succeed if we do not discover and articulate development goals which are *not optional* and are *universal* and *transcendent*, and thus able to rally *decisive* energies and commitments.

Whether we know it or not there are "development goals" we cannot refuse. <u>We have an unwavering obligation to protect human dignity and ecological life, to the very limit of our ability.</u> This obligation lies deeper than considerations of "rights" or even "democracy," i.e. deeper than Enlightenment thought (never dominant and now very threatened indeed). In the final analysis fulfillment and maturity are measured in terms of such obligations. <u>We are engaged in works of required justice, not optional charity.</u>

The object of any obligation, in the realm of human affairs, is always the human being as such...The fact that a human being possesses an eternal destiny imposes only one obligation: respect. The obligation is performed if the respect is effectively expressed in a real, not a fictitious, way; and this can only be done through the medium of Man's earthly needs. (Simone Weil)

# How could changes at the DOE labs, and in our relations to them, help achieve economic development goals? (2)

- Dr. Bill Weida (Chair, Econ, CO College, retired) says and I agree that <u>the greatest single</u> <u>development barrier we face (in northern NM especially) is the inability to admit and publicly articulate that nuclear weapons have been a far-reaching mistake.</u>
  - <u>To solve NM's problems it will be necessary to build a working political consensus around human development, which can only be based on a deep respect for human beings.</u> Identification with nuclear weapons and the labs (which takes the political form of material and social conflicts of interest that ramify through our institutions), keeps us from doing that. This is because nuclear weapons embody, and nuclear coercion (so-called "deterrence") requires, deep *dis*respect for human beings, human values, and civilizational norms, including legal norms.
  - Unable to admit our error we drift, prisoners of a nuclear dream. It is addictive behavior. The first step in awakening is for leaders to admit publicly nuclear weapons are a bad problem in general and a bad problem for us, and to reject them uniformly. This is one purpose of the Call for Nuclear Disarmament. The critical path to ED lies through public rejection of nuclear weapons.
  - Acknowledging publicly the illegitimacy of nuclear weapons allows positive, transitional "new" lab missions that are congruent with the old and even extensions of them, <u>because the key element disarmament is just the inverse and fulfillment of the prior mission.</u> These new/old missions are the mutually-supportive quartet of <u>disarmament, law-based nonproliferation, safe custodianship, and cleanup</u>. "Stockpile stewardship" would transform itself into its own public relations image.
  - It is important to understand that respect for nuclear weapons, nuclear weapons institutions, and nuclear weapons careers are politically synonymous. They are also historically and culturally inseparable. Efforts to respectfully "transition" the labs to new missions without definitely rejecting the legitimacy of nuclear weapons and the "empire of might" will fail (and should fail, for reasons discussed below). They will also lead to greenwashing and hence protecting existing missions.

# How could changes at the DOE labs, and in our relations to them, help achieve economic development goals? (3)

- Once development efforts are successfully divorced from the publicly-discredited nuclear weapons enterprise, with disarmament, nonproliferation, cleanup, and custodianship (DNCC) put forward as LANL's new main missions, development in NM can proceed without a nuclear sea-anchor. <u>It is not necessary to achieve disarmament, only to publicly divest from nuclear weapons, at first just intellectually.</u> This initiates a process which if continued will certainly result in disarmament. In fact divestment especially in this region, pivotal for the nuclear weapons enterprise is disarmament itself.\*
- In practice the process of removing nuclear weapons loyalties from NM institutions will be gradual and complex. <u>The master step, however, is the clear rejection of nuclear weapons by community leaders, which initiates the process and conveys its underlying morality and goal.</u> These communicate widely.
- Once firmly begun every new circumstance will assist, and be an occasion for, further development. The WMD business is contradictory to human values, condemned in principle by wide majorities, and it cannot withstand either public exposure or thoughtful, sane criticism. (Hysteria is always self-defeating.)
- With this, the development problem is put now on simpler and to some of you a more familiar ground. Meanwhile, LANL'S DNCC missions can and should be done with a much smaller lab. <u>Those leaving who want to work should be provided with access to credit, a limit to business risk, or other resources</u> to encourage them to start new businesses or join existing ones. This would cost far less than supporting them at LANL and would contribute far more to the regional economy.
- <u>NM leaders should embrace LANL downsizing as a political opportunity.</u> LANL could smoothly shrink 10% net per year to a new plateau at about 40% of its present size, then more slowly to a smaller long-term equilibrium. Important short-term LANL changes to be embraced include: halting CMRR nuclear facility (NF) construction and limiting CMRR RLUOB construction to prevent later expansion; moving most weapons-grade Pu from LANL to the Device Assembly Facility (DAF) in NV; keeping TA-55 but not producing pits for the stockpile; focusing TA-55 more on safety and keeping it on "warm standby."

<sup>\*</sup>See the author's "The Way is the Goal: Disarmament Now," at http://www.lasg.org/TheWay.htm.

#### Can the NM labs lead in energy R&D & other non-defense missions? (1)

No. The nuclear weapons labs neither can nor should lead in any new missions not very intimately related to their current (as transformed, i.e. DNCC) missions.

- This question avoids the reality of what LANL is doing today and is likely to do tomorrow, and what to do about it avoids the "as is" world for an "as if" fantasy. The questions which have to be asked are:
  - Is the new mission actually necessary, appropriate, feasible, and urgent at all?
  - Is it actually a technoscientific problem or is it a political problem masquerading as the former?
  - Is it the kind of technoscientific mission most appropriate for one of the 36 or so federal research and development centers (FFRDCs), 19 of which are managed by the DOE? Or is it more appropriate for an in-house federal lab, a government contractor, or a university like UNM?
  - Of these FFRDCs, is LANL the very best place to do it from the perspective of mission? Of cost? What is actual likelihood of timely, cost-effective success at LANL? What effect will LANL's other missions have on program *content* and *quality*? What benefits from cross-fertilization with other research may exist elsewhere (but not by definition in an FFRDC which is being re-purposed).
  - Why won't LANL's extremely high overhead, high-security environment, its geographic and intellectual isolation in NM, and its in-bred management trained by decades of nuclear weapons work, ruin the project at hand as usually happens? What has LANL done in the last 40 years?
  - In short, what experienced, mature in fact top-notch skills and resources can LANL bring to bear on the proposed problem in a timely, cost-effective way that better institutions cannot?
  - Even if all these questions could be answered affirmatively and after many years of study I believe they cannot what power does the attempt to acquire good new missions have to diminish bad old ones? Answer: *none at all*. They are completely separate policy decisions.

I know of no example whatsoever of "defense conversion" of any specialized facility not involving full- or near-closure, anywhere in the U.S. Do you?

#### Can the NM labs lead in energy R&D & other non-defense missions? (2)

(Or, can LANL work on big urgent national problems in which it has no experience more quickly, more successfully, more cheaply, and with fewer conflicts of interest than all other institutions?)

- <u>The cost of one working scientist or engineer at LANL today is at least \$550,000 per year and probably closer to \$600,000/year.</u> This includes ~ 1 technician and various non-project "support" and overhead. Compare this to university costs for a professor or post-doc plus graduate students, the latter possibly subsidized by endowment income in some cases. These huge LANL costs come with the nuclear weapons mission and will continue as long as it does, a potent barrier to change.
- <u>There is no support whatsoever in Congress for converting LANL or SNL to new missions.</u> Prior efforts to *diversify* (not convert) the DOE weapons labs are widely regarded in Congress as a failure and a mistake. Management success at these labs is (accurately) regarded as a fragile construction and Congress wants them to "stick to their knitting," which is hard enough.
- Many, many institutions in many states and districts would like to have DOE funding for significant new energy and climate missions. Many of these are conspicuously more qualified than LANL or SNL.
- DOE operates other FFRDCs with civilian energy missions already, like the National Renewable Energy Laboratory (NREL), the Lawrence Berkeley Lab (LBL), Oak Ridge National Laboratory (ORNL), the Ames Laboratory, Argonne National Laboratory East (ANLE) and others.
- LANL management will fight conversion because LANL has no compelling *raison d'etre* without its nuclear weapon mission, a unique niche especially the Pu manufacturing, on-site nuclear waste disposal, and weapons field testing (e.g. hydrotesting) portions of LANL's mission.
- Conversion of the nuclear weapons labs to wholly *different* missions "in another key" implies that all nuclear weapons problems have been solved. They have not. The DNCC missions remain.
- LANL and SNL have specific cultures that are very hard to change and harder to change quickly.
  These cultures are toxic to most civilian missions. Problems include secrecy per se and its many sequellae, management in-breeding, toadyism, lack of accountability, inability to work quickly or interface with industry, facility use conflicts and issues of facility age, specialization, contamination, and more.

#### Can the NM labs lead in energy R&D & other non-defense missions? (3)

- <u>LANL is converting already toward pit production</u> and other specializations within the nuclear weapons arena as a response to its geographic setting and the political necessity of providing missions for LLNL, especially as LLNL anticipates a post-National Ignition Facility (NIF) let-down and closure of Site 300. <u>Congressional and executive branch momentum runs away, not toward, LANL conversion.</u>
- Of the three DOE nuclear weapons labs, LANL is inherently the least suited to civilian missions due to culture, history, and geography. Efforts to "convert the labs" are most likely (though still extremely unlikely) to "convert" LLNL, focusing LANL more on nuclear weapons. In a recent NNSA study option, the warhead complex shrinks to just 3 sites: NTS, LANL, and SRS. <u>DNCC missions are however managerially feasible.</u>
- <u>There are weighty voices</u> in government (in Congress, in the military, among professionals at the State Dept.) and powerful voices in the elite foreign policy establishment (Shultz, Kissinger, Perry, Nunn, retired generals, etc.) and even among libertarians (Cato, recheck; I could be wrong) <u>arguing for nuclear</u> <u>disarmament, many of them for nuclear abolition.</u> Domestic and international opinion requires NNSA, DOE, & State to credence disarmament now to a considerable extent. Why attempt to take LANL so far afield?
- The rhetoric of conversion values the institution, which implicitly means the *whole* institution the institution as it is. This divides and undercuts efforts for needed reforms, which definitely include downsizing. *The rhetoric of conversion is paralyzing, not creative, and falls to the political "right" of many Republican leaders* on this issue. It's a bad message.
- In order to build the local economy, it is necessary to release energies held by LANL. That too means a reduction in force. The ensuing difficult conversations ("What will we do now?") should have happened a long time ago. LANL has been an anodyne. Those conversations are a necessary part of the development process. Facilitate them and support positive outcomes. Don't worry about a scientists' "trail of tears."
- In 1983 at LANL's 40<sup>th</sup>, I.I. Rabi said, responding to a question regarding LANL conversion, "The only way LANL could ever be converted is with a bulldozer." (Study Group oral tradition) Forget converting LANL. LANL will be the last part of NM converted. Neither LANL nor SNL can lead. Limit the labs and limit the damage they do. They can and do hurt and limit NM; they cannot help it. Convert people and families, convert careers, convert local governments and other institutions, and convert the state.

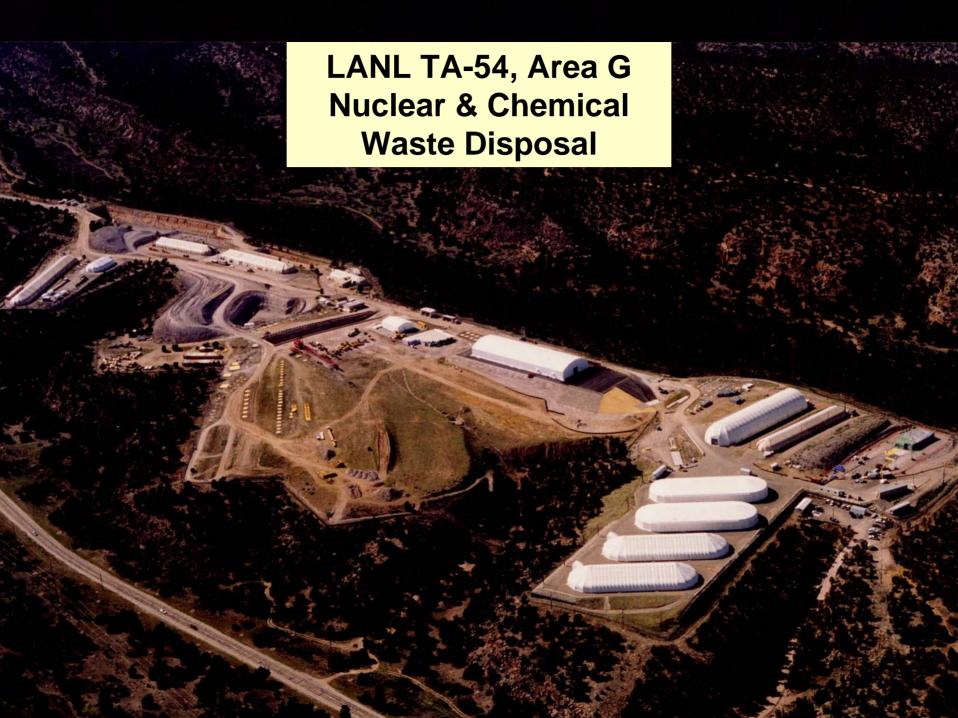
# Dual-Axis Radiographic Hydrotest (DARHT) Facility, LANL, circa 1999. For pit certification.



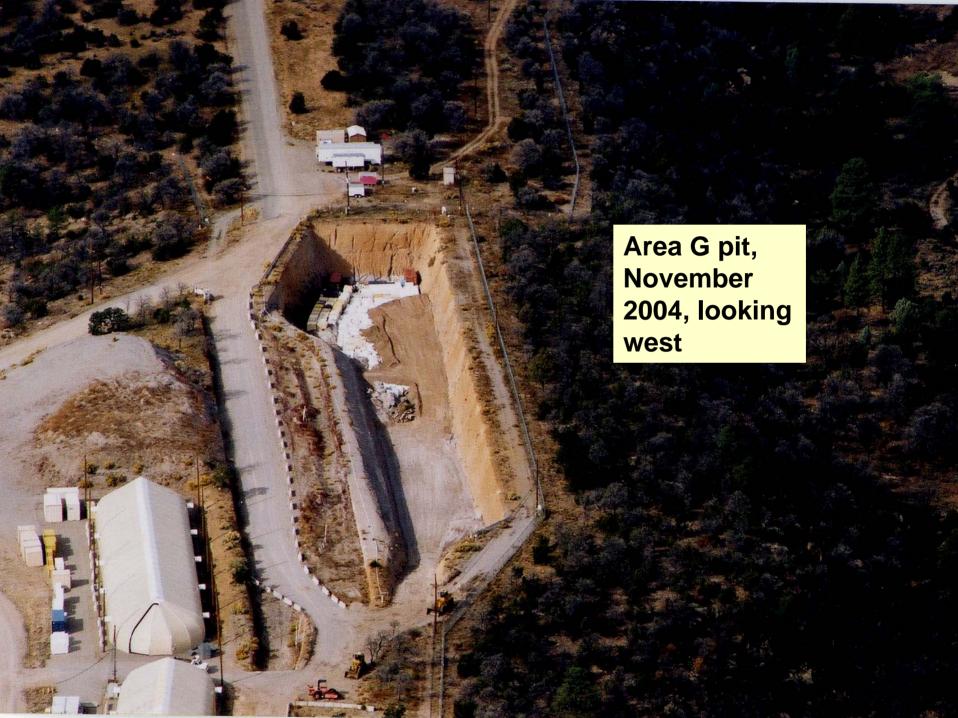


"Appaloosa"/"Dynex" vessels at LANL TA-60 – for pit explosive "subcritical" pit testing above-ground using real Pu-239 or Pu-242.

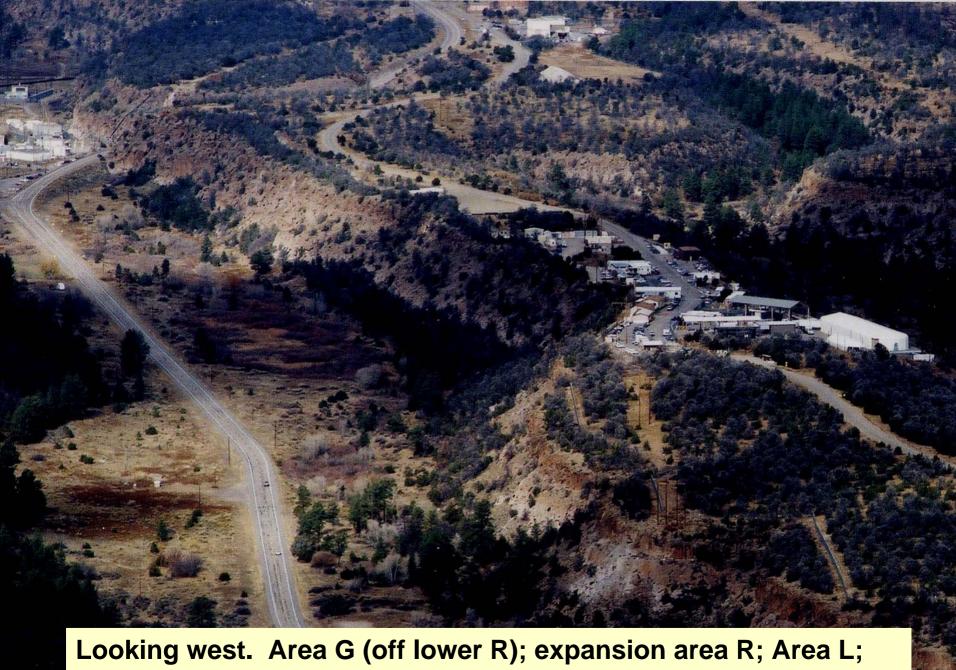
These are single-axis vessels.











Looking west. Area G (off lower R); expansion area R; Area L; Pajarito Canyon with former public road and numerous springs

#### **LANL: Old facilities**

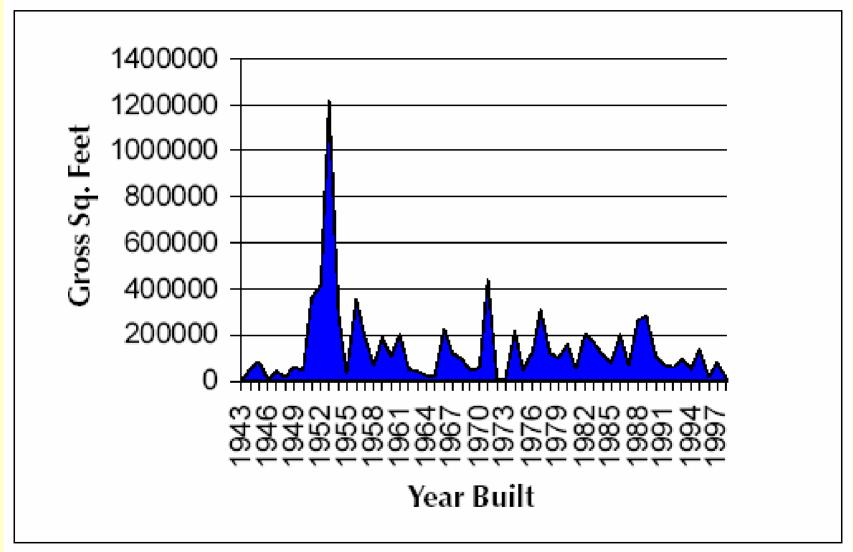


Figure V-2: Historic Laboratory Construction

#### In poor condition

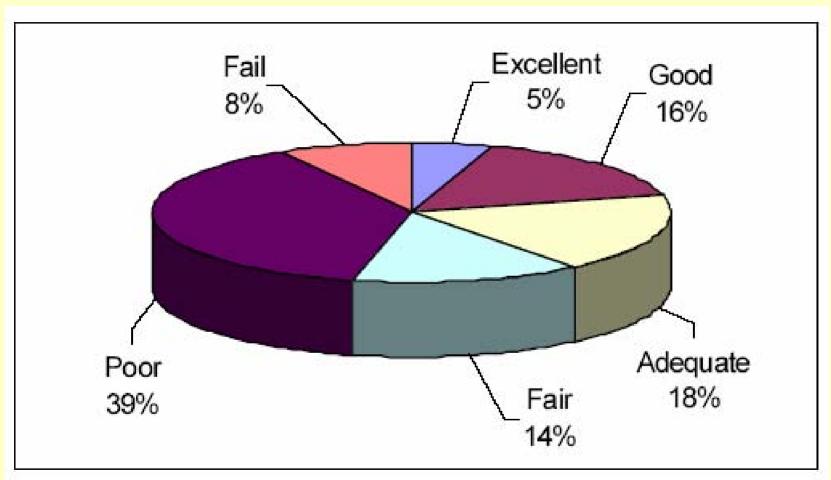


Figure V-3: Current Facility Condition

#### Getting older and in worse shape: retire most prudently, don't renew

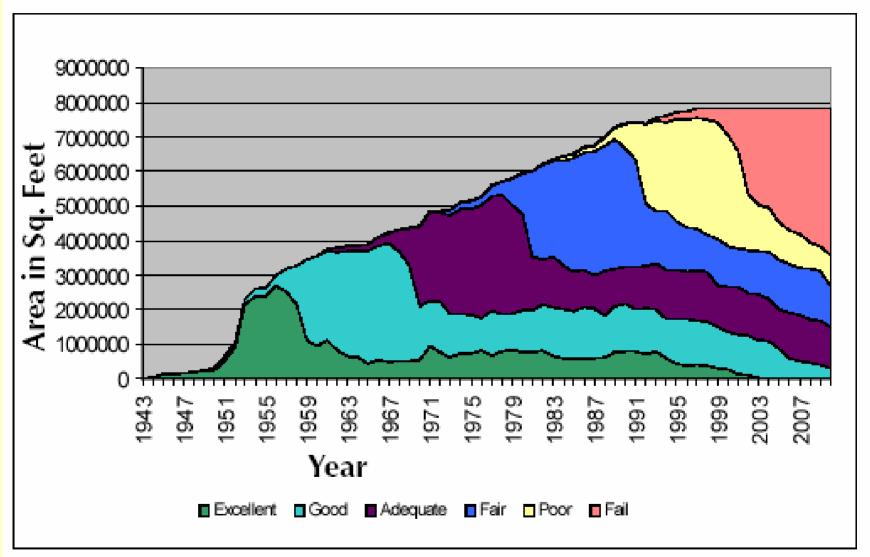


Figure V-4: Laboratory Facility Condition Model

#### How might changes at these labs build businesses in NM? (1)

- Realize that paying 5,000 people to retire from LANL and its subcontractors at \$60,000/yr would cost only \$300 M annually; paying them to work at LANL would cost 3.3 times this much. Even paying \$100,000 per year would cost half what it does paying them to work at LANL. Pay people to leave and pay people who must leave. Thank them for their service, for the ability to change our course now. And change we must.
- <u>This and other recommended steps may require a revitalized DOE Office of Community Transition</u> and adequate funding as well as separate state (NM) authority. Our delegation is well-placed to recreate this. Fund the federal effort from cuts in Weapons Activities. Fund it to build the economy in affected regions, to boost local economies *higher* than what they were before downsizing.
- <u>Realize that the energy/climate/security crisis does not require new technology to resolve.</u> It does require implementing existing technology. Institutional factors lag. <u>Misconstruing the energy problem as primarily or even substantially an R&D problem could be disastrous</u>. Naïve or self-interested hot air is common.
- Realize that whatever anybody thinks about the LANL mission, <u>99% of the work product of everybody</u> who works there is wasted as far as regional development is concerned. The region gives enormously to LANL and receives almost nothing (except nuclear waste and demoralization) in return. It is an extractive industry, consuming culture, careers, story, and landscape.
- The "elite" aspects of LANL's identity have little relevance to building businesses in NM if anywhere. "Elite" at LANL goes with "highly ideological." It is the craft workers, engineers, technicians, and the scientific generalists who are likely to be the most (though not the only) important people in building the businesses we need and therefore whom we should not fail to support. We need accessible career ladders for our young people and appropriate role models and mentoring. LANL obviously doesn't provide these.
- <u>Use cleanup as a bridge program.</u> Removing waste from MDAs is a multi-billion dollar, multi-decade program with a possible regulatory driver being considered *right now*.
- <u>Feed ex-LANL workers into major NM energy sufficiency programs</u> that transform the housing stock, infrastructure, & build local self-sufficiency, skills, morale, ownership, enfranchisement, and security.

## How might changes at these labs build businesses in NM? (2)

- <u>Devise and apply a federal and a state incentive package to foster entrepreneurial activity</u> that is initiated or joined by ex-LANL (and subcontractor) employees. This is in addition to an aforementioned "safety net." Purposes of this incentive would include risk reduction, attracting regional investors, allowing a longer business development cycle, regional retention of ex-staff (entrepreneurial, skilled, & motivated), and more.
- Recognizing NM's competitive disadvantage in many "footloose" goods and services, <u>emphasis should be on markets that are now or which could be created or controlled by the state (NM), the tribes, and other geographically-fixed regional actors or which are inherently non-exportable. Example: renewable energy installation and some manufacture; home reconstruction, repair and insulation; education; health care.</u>
- <u>Recognize that there is a latent huge market for skilled workers and labor</u>, just waiting for leadership and new public policies to ignite, and meaningful career ladders capable of motivating increasing numbers of NM young people. These markets are just waiting to be because:
  - Oil production has likely peaked worldwide; natural gas production has likely peaked in N. America. These fuels will become more expensive, especially the latter. It is our obligation to protect NM poor, especially, from the effects of this. *The multifaceted crises of today are either opportunities or catastrophes: we have some choice.* Whichever they become they are beginning now.
  - Climate change and weather (drought, floods) will badly and differentially damage the NM economy and NM society if we do not begin ameliorative measures and do our part to prevent further global damage. These ameliorative measures are also precisely the measures needed to gradually eliminate poverty (or they could be) and needed to build local economic and political institutions.
  - <u>The current NM employment "boomlet" is largely driven by</u> (unsustainable) <u>sprawl</u> (construction employment, furnishings, cheap housing and labor attracting certain industries) <u>and by</u> (unsustainable) <u>oil and gas production.</u> <u>NM has no decent ED policy and very little ED policy at all.</u>
- <u>It is essential to recognize the need for intangible rewards, such as honor.</u> At bottom poverty is a mental, spiritual, physical, and especially social problem; it is only superficially and at first a merely monetary one. It must be attacked socially, intellectually, and spiritually, e.g. through work for others or the community.

#### B. Nuclear policies at the crossroads: federal and NM choices

What is the situation in Congress and the Executive Branch today? How do NM politics affect weapons and nonproliferation policies?

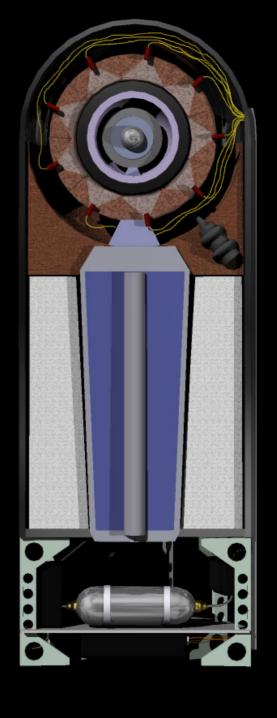
#### Six key decisions loom:

- Will critics in Congress, NNSA, and civil society halt the construction of new warhead factories (e.g. Chemistry and Metallurgy Research Replacement, CMRR) at LANL, and less significantly, at Y-12?
- Will the needless re-start of U.S. warhead production including secret provisions for on-demand "small lot builds" of "special" warheads and bombs be allowed to proceed?
- Will the NNSA build new "modular" warheads, gradually replacing the entire stockpile, using designs that allow rapid, higher-volume manufacturing and more readily adaptable to new delivery systems and new nuclear missions? This is the "Reliable" Replacement Warhead (RRW) program.
- Will the U.S. warhead complex be rebuilt and modernized or downsized on a glide path toward disarmament and treaty compliance? This is *more and different than* the "Complex 2030" process.
- How much money will the U.S. spend on nuclear weapons, particularly in the symbolic "Weapons Activities" NNSA budget line, currently \$6.4 billion?
- Will the Pentagon be allowed to modify nuclear ballistic missiles to "GPS-like" accuracy?

#### ■ Time frame:

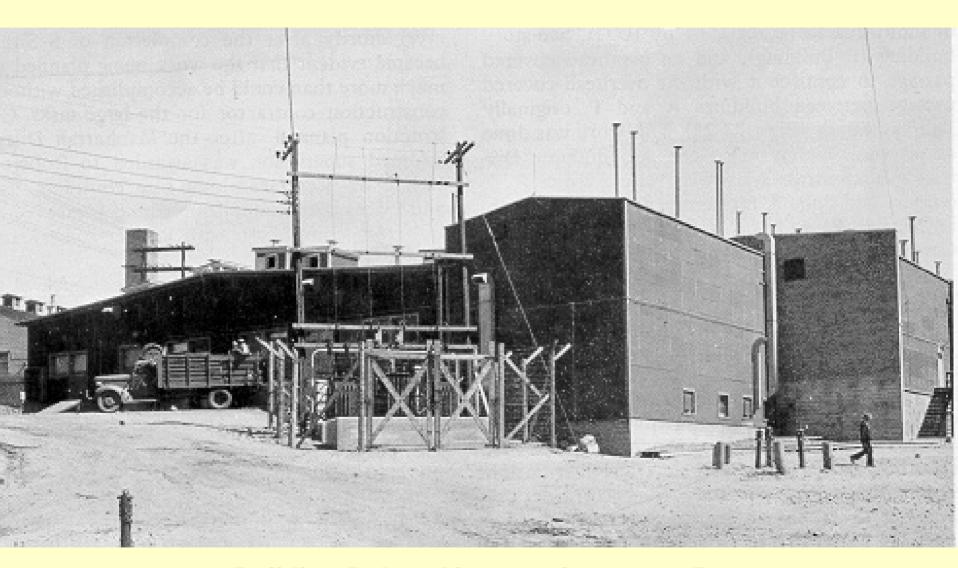
- First, understand that a) for NNSA and DOE, nothing is ever final, and b) the US has no settled nuclear weapons policy and *will not have one*. Most large DOE projects do not succeed as planned. They can and do fail, halt, or downsize before, during, and after construction or initial execution.
- Other than construction of the Chemistry and Metallurgy Research Replacement (CMRR) Phase A, which is being built, most decisions are likely to be "kicked down the road" this spring and summer. The direction of bellwether programs & projects will be clearer by the end of 2008; it depends on us!

Idealized nuclear weapon cross section, early 1960s. The "pit" is the concentric set of shells inside the high explosive at the top. Together these are called the "primary" (nuclear explosive). Some modern "pits" are ellipsoidal and probably have just two detonators, one at each of the poles. This enables smaller-diameter primaries, better fit in tapered shells, & much higher yield.

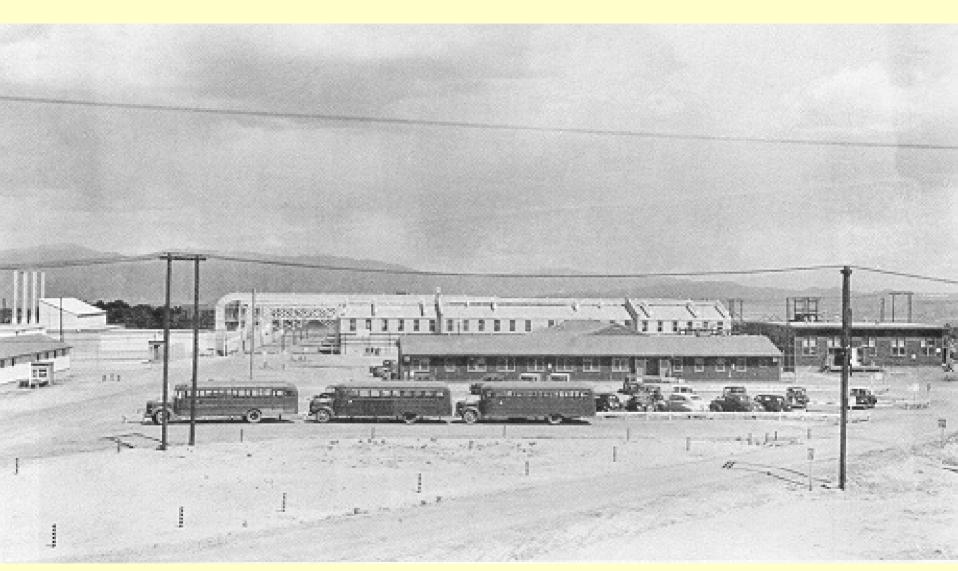




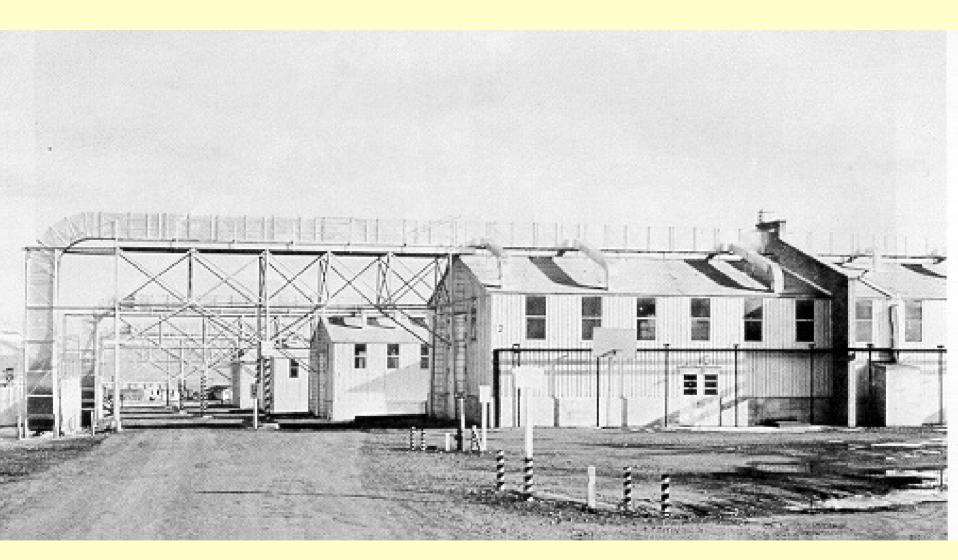




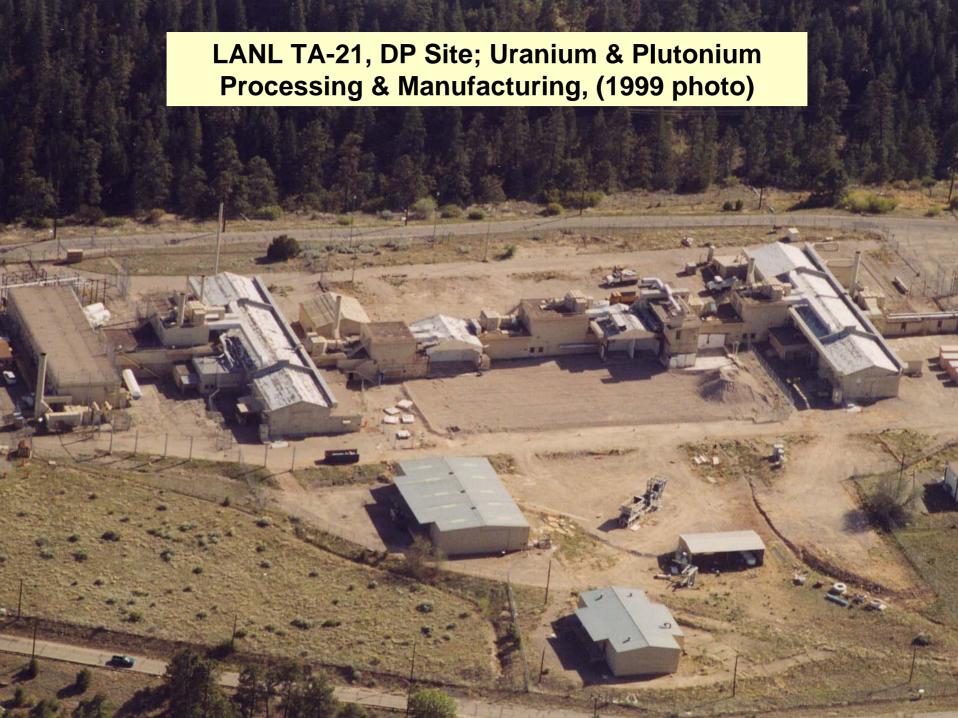
Building D, Los Alamos, circa 1944: Pu processing and pit manufacturing



DP Site ("D Prime"), TA-21, which replaced D Building. The Rocky Flats before Rocky Flats.

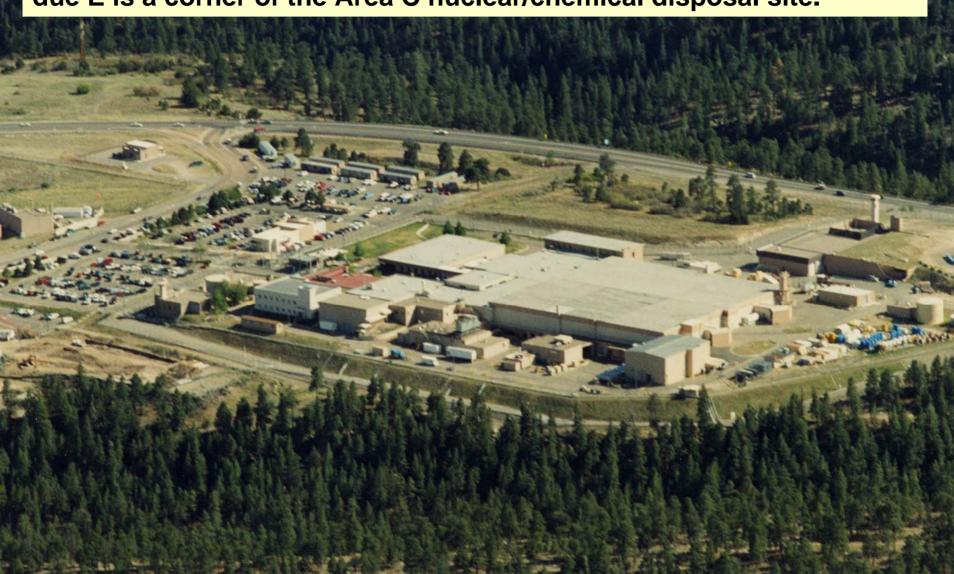


DP Site (TA-21); plutonium manufacturing in foreground





LANL TA-55, plutonium facility, looking SSE: main building (PF-4) and ancillary structures; never-used Nuclear Materials Storage Facility to SW of PF-4; CMRR site S of PF-4. Triangular green field due E is a corner of the Area C nuclear/chemical disposal site.



# **CMRR Site Drawing**









# **Overview**

## CD-1 TPC: \$745M-\$975M; CD-1 Schedule: 8-12 years

## Radiological Lab Utility



#### PHASE A

- 19,500 nsf radiological lab space (< 8.4g 239Pu equivalent)</li>
- Centralized utilities/services for all CMRR facility elements
- Office space for 350 CMRR workers
- · Consolidated TA-55 training facility
- Facility incident command center; emergency response capabilities

#### **CMRR PROJECT**

Special Facility Equipment (SFE)



#### PHASE B

- · Facility gloveboxes and hoods
- · Long-lead, specialty equipment
- · Programmatic equipment

**Nuclear Facility** 



#### PHASE C

- · 22,500 nsf lab space
- Security Category1/Hazard Category 2
- Special Nuclear Material storage (6 M tons)
- · Large vessel handling

#### **PROJECT STATUS**

 Final design 36% complete as of 09/13/06. In preliminary design

Site seismic investigation ongoing

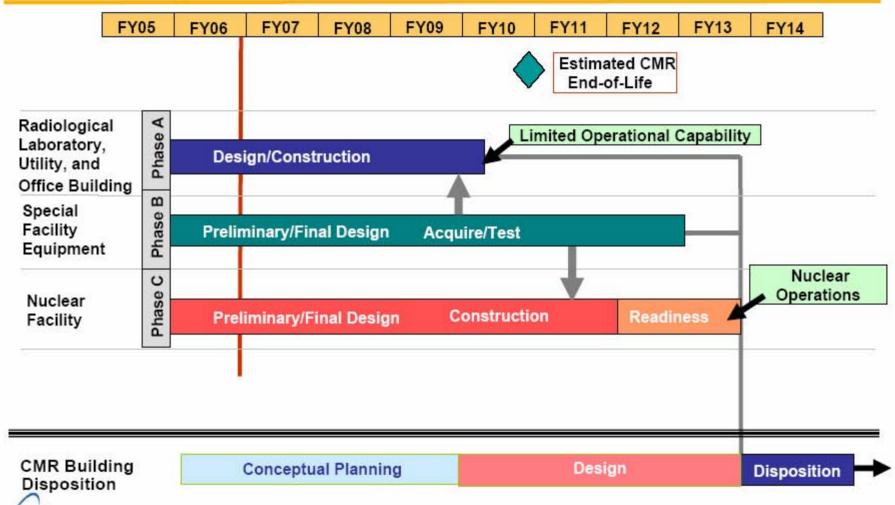




UNCLASSIFIED



# CMRR Project Overall Project Timeline













**Groundbreaking at the CMRR** 

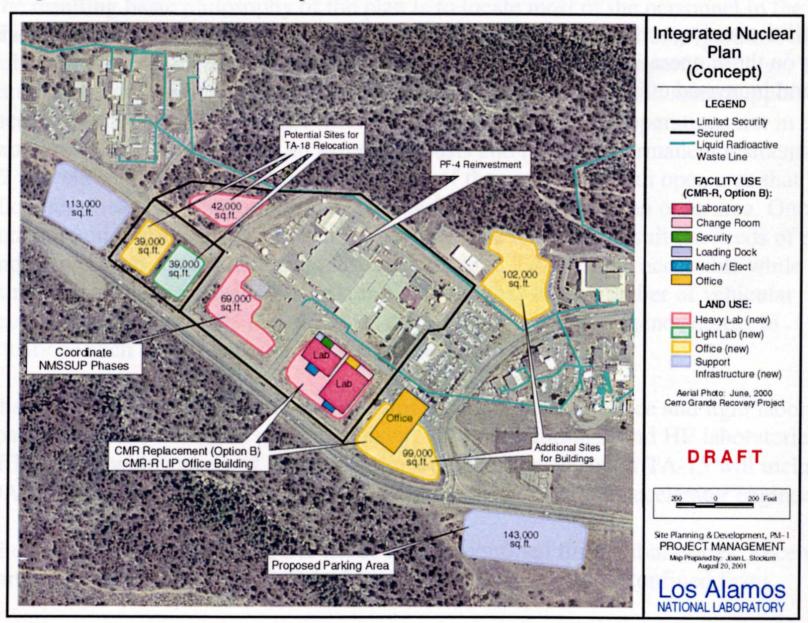
## Integrated Nuclear Plan (INP) for LANL's Plutonium Facilities (2001)



Figure IV-7: INP Pre-Conceptual Rendering at TA-55.

## Integrated Nuclear Plan (INP) for LANL's Plutonium Facilities (2001)

Figure IV-6: INP Pre-Conceptual Site Plan at TA-55.

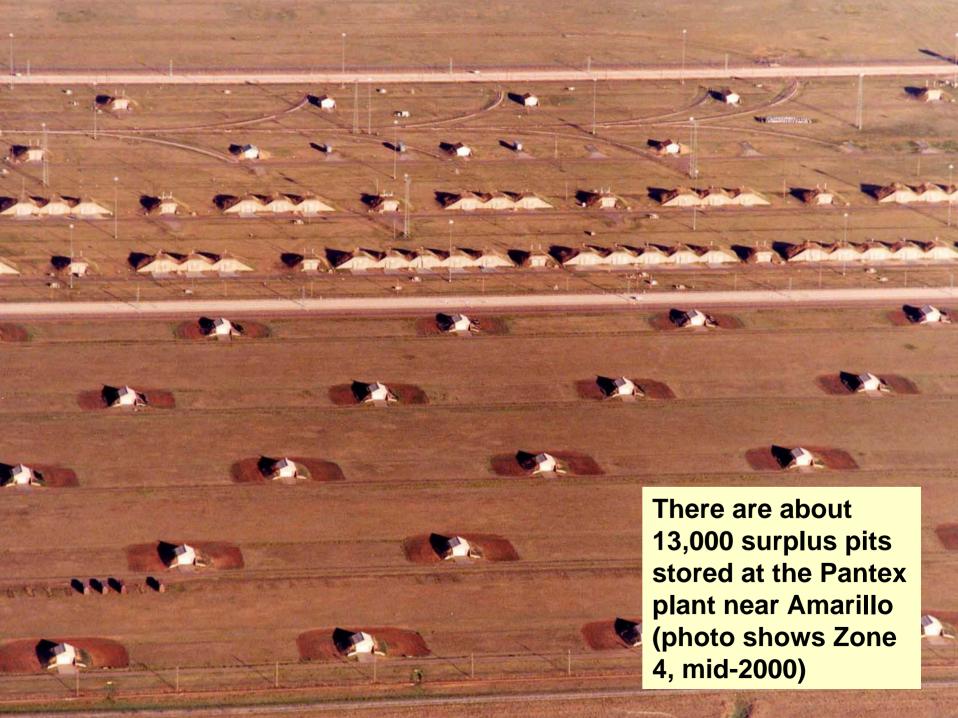


From: LANL Ten-Year Comprehensive Site Plan, 9/26/01, LA-UR-02-1786



The Albuquerque Isotopes mascot ("Orbit") "at" the LANL plutonium facility, holding a...

(poster from LANL web site)



## What is the situation in Congress & the Executive Branch today? (1)

- In Congress
  - House Armed Services Committee (HASC)-
    - Requests "a congressionally-appointed, bipartisan congressional commission to re-evaluate the U.S. strategic posture" in order to "create a public discussion." *Evaluation of this: mixed.*
    - "Slows [DOE] nuclear weapons initiatives including development of a [RRW] and construction of a new plutonium production facility [CMRR nuclear facility (NF)]. In part, these actions are taken to make room for the public re-evaluation of our nuclear posture."
    - "reduces funding for the Conventional Trident Modification (CTM) program, and limits available funding to amounts associated with research and development on the system."
    - "limits use of all RRW funds to Phase 2a design and cost study activities" and cuts \$45 M from RRW (\$20 M out of \$89 M from NNSA and \$25 M out of \$30 M from the Navy), leaving \$74 M.
    - Cuts \$25 M (100%) from the proposed Consolidated Plutonium Center (CPC)
    - Cuts \$25 M from CMRR NF out of \$96 M CMRR total (NF + RLUOB), which NNSA had already reduced from a previous (January 2006) estimate of \$161 M for FY2008.
    - Cuts \$4 M from the B-61 Life Extension Program (LEP), with direction to defer the start of any new LEP activity (W76?) pending further evaluation of the RRW program.
  - Senate Armed Services Committee
    - Will decide next week, probably along somewhat similar lines. Bingaman may be involved.
  - HASC decisions were somewhat unexpected and reflect rapid distancing from big new programs as Congress becomes more educated. Nevertheless they all continue for now.

#### What is the situation in Congress & the Executive Branch today? (3)

- In Congress
  - House Appropriations Committee and its Energy and Water Development Subcommittee
    - Has been the main intellectual leader of a weapons policy reevaluation under David Hobson; Visclosky continues tradition. Very bipartisan subcommittee. Very concerned about management and cost-effectiveness.
    - Has tried to kill CMRR two years running. Does not like RRW.
    - Usually offers Weapons Activities budget lower than Senate.
  - Senate Appropriations Committee and its Energy and Water Development Subcommittee
    - Under Domenici's thumb since 1994, staff was run for a time by sometime industry lobbyist Alex Flint. Sen. Dorgan and staff are new at the majority job.
    - Domenici often injects himself into lab and NNSA management in an intrusive, detailed manner. His staff continues to be closely tied to (or may still include) "grey-zone" lobbyists.
  - House Energy and Commerce, especially Oversight and Investigations Subcommittee
  - Senate Energy and Natural Resources (Bingaman and Domenici, chair and ranking member)
  - Government Accountability Office (GAO) and Congressional Research Service (CRS)
- In the Executive
  - NNSA is not happy; senior management a) recently changed, b) acting; NNSA & DOE are weak.
  - Pentagon the 900-lb gorilla, not very interested in nuclear weapons and OK with status quo.
  - Office of Management and Budget (OMB) doubtful about grandiose new programs, insists on independent assessment and audit by Pentagon internal and external consultants.

## It is critical to stop warhead core ("pit") production, and we can (1)

- <u>Pit production is not needed to maintain each and every warhead and bomb in the U.S. arsenal</u> until at least 2060 if not longer. There is a pit in each of the almost 10,000 warheads and bombs in the current arsenal and there are at least 13,000 extra pits as well. Bush has promised to dismantle ~ 4,000 warheads and bombs. There are many forms of redundancy built into U.S. nuclear posture and policies.
- <u>There are legally-binding, widely-recognized obligations to achieve nuclear abolition</u> deeply intertwined with the world's nonproliferation treaties and regimes. This is fact, not opinion, and can't be "managed."
- At least two big polls show that at least 80% of the American public supports full nuclear disarmament pursuant to treaty.
- <u>LANL is the only place in the U.S. where plutonium warhead cores ("pits") can be made</u> for at least the next 15 years or more. Most (not all) new warheads require new pits. Hence LANL is pivotal in whether or not the U.S. resumes nuclear weapon production after the current 18-year pause.
- Ominously, the first two kinds of pits to be made are for the Trident missile system. <u>The bulk of these pits, and the new warheads to be made from them, are for a warhead shell for which an ultra-high-accuracy variant already has been designed, built, and tested, ostensibly for "conventional" warheads for "prompt global strike" (PGS). There are no technical barriers to nuclearizing this PGS system.</u>
- <u>If pit production can be postponed just a few years, global security imperatives, increasingly obvious even in the U.S., may allow a sober reassessment of pit production benefits and costs.</u> Ideological commitment may wane as "Cold Warriors" retire. Superfluous skills will disappear, facilities will age, and fiscal realities will press, all making gratuitous, aggressive pit and warhead production less likely.
- <u>Failure to resume production would realistically lower the status of the nuclear weapons enterprise</u> in the U.S., reducing the legitimacy and appeal of an aggressive nuclear posture and allowing decisionmakers time and reason to disinvest further in nuclear weapons.

## It is critical to stop warhead core ("pit") production, and we can (2)

- In theory, LANL can make pits now and is planning to do so this year. <u>LANL may or may not be able to do so in actual practice</u>. And it can only do so at a low rate, by breaking internal safety rules, driving a reluctant workforce, and building "work-arounds" to temporarily fix various infrastructure deficiencies.
- <u>Key members of Congress already oppose adding new production capacity at LANL</u>. Last month, construction of the larger of two new pit production buildings appears to have been deferred for a year pending other decisions.
- If new production capacity is acquired by LANL through new construction, gradual expansion of existing capacity, or both there would be serious consequences. Preventing proliferation and arms races would be much harder. Look
  - <u>More production capacity, if acquired, would be used</u> indeed *must* be used to be proven. Pit production would begin in earnest and overall U.S. warhead manufacture would then resume with very serious ramifications worldwide.
  - <u>The pits made would very likely be for a new generation of warheads</u>, possibly including disclosed or undisclosed "small builds" of "special weapons." There is little or no interest in building extra copies of warheads slated for dismantlement! What would be the point?
  - Since these new weapons would be untested, <u>the U.S. would be unlikely to ratify the Comprehensive Test Ban Treaty (CTBT).</u> In that case, few if any other key states would ratify, and the CTBT would not enter into force.
  - Adding <u>renewed U.S. warhead design and production</u> to many other powerful negative factors already present <u>would make it likely that all efforts by all parties to strengthen the Nuclear Nonproliferation Treaty (NPT) would fail, further weakening restraint over nuclear anarchy.</u>

## It is critical to stop warhead core ("pit") production, and we can (3)

- <u>Making a new generation of U.S. warheads and bombs would help legitimate nuclear weapons worldwide</u> and stimulate a variety of responsive investments in other countries, all driven or protected by U.S. hypocrisy. Fresh U.S. commitments to nuclear weapons would poison restraint and empower hard-liners worldwide in a complex manner that would be very hard to control.
- Russia in particular would continue to modernize and invest in its nuclear forces for this and other potent reasons.
- Pit production would have big implications for New Mexico some new, some continuing.
  - <u>LANL would become primarily a production site</u> as the exigencies of pit production take over lab funding and culture. Its reputation would come to reflect that. Even without accidents, a "plutonium" identity and reputation would come to be shared to some extent throughout the Santa Fe metropolitan area and Northern New Mexico. Already the Santa Fe metro area is home to a growing, unregulated nuclear waste dump, by far the largest in New Mexico and the largest in a four-state area. Most of the new waste is generated by pit production and related programs.
  - <u>This would affect the area's culture and quality of life directly and it would harm the area's economic development potential</u>, currently based in substantial part on perceptions of environmental amenity.
  - <u>These impacts would combine with the regional impacts of global warming</u> (including long-term drought, dramatic ecological changes triggered by drought spikes, significant loss of stream flow and water supplies and the loss of most skiing), as well as with a variety of NM social problems, almost certain to increase for other reasons. All these problems would be negatively synergistic.
  - New Mexico's political system would continue its subaltern relationship with New Mexico's nuclear laboratories, its uranium enrichment plant, its waste disposal sites, and with various nuclear contractors, some of whom are now campaigning to bring additional nuclear facilities (mostly waste-oriented) to New Mexico.

## It is critical to stop warhead core ("pit") production, and we can (4)

- If the state's politicians continue to depend on nuclear and defense thinking and contractors, they will continue to ignore realistic solutions to the state's economic, social, and environmental problems. These leaders, some powerful, will also (continue to) forestall development of sound national energy and climate policies. Bingaman's climate protection approach was rated the very worst being offered by members of his party.
- <u>"Plutonium-induced" changes in the state's identity, culture, reputation, and politics could lower the barriers to more nuclear investments</u> in a downward, self-reinforcing spiral, further investing the state in injustice, unsustainability, and continuing to stunt its democratic institutions.
- Finally, and this is the good news, *pit production has been very difficult for DOE and NNSA to achieve*, in part because it is utterly unnecessary and in part because it is so hard, dangerous, dirty, and expensive. Approximately six plans have failed since 1988. Either <u>Senator Bingaman or Congressman Udall could stop this relatively easily</u> if either wanted to do so, given other realities involved. Senator Domenici is the main congressional force behind expanded pit production at LANL as well as the RRW.

#### C: What can and should NM leaders do? Messages & actions (1)

What decisive, positive steps can be taken by New Mexico community leaders?
What messages will resonate where it matters, and how can they be delivered?
How can these messages be used in the current work and priorities of community leaders?

• <u>It takes only a very few people to be successful.</u> Less than 10. I wonder if you really believe that. If you do it will change you and make you effective. The people in this room are more than enough. Those people always include I, the first person singular and the only actor we can count on. Also, they will always make a well-defined "we." *All efforts requiring action by large numbers of people will fail.* 

Never doubt that a <u>small</u> group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has. (Margaret Mead)

What must be done? [D]o not withhold yourself. (Martin Buber)

- <u>The nuclear weapons enterprise is very weak</u>. It faces very serious internal crises related to an aging workforce, declining practical skills, poor morale, aging facilities, and fading ideological commitment among other problems. <u>The apparent social consensus that once supported U.S. WMD in the face of bedrock moral values and sound safety, fiscal, and environmental practices has quietly evaporated.</u>
- <u>The search for better messaging technique is either a search for better truths − or better lies.</u> We cannot successfully fight fascist propaganda with democratic super-propaganda (Franz Neumann). Nonviolent political power comes from our search for truth, which exists. We must strive to become it.
- The only way to communicate with diverse people involves what we know in common ("conscience"): i.e. simple, bedrock moral messages.
- More leadership is required from economic, political, and intellectual elites today for a variety of reasons. The realization that one has arrived at a position of influence and responsibility can be very disturbing, but more of us must realize it.

Does the individual know that he is the make-weight that tips the scales (Carl Jung)

## What can and should NM leaders do? Messages & actions (2)

- To speak of effective messages, we must identify some common ineffective ones, often tacit.
  - Complacency is OK. "We need to take care of ourselves." "Things will work out." These are expressions of decadence. In fact things are *not* working out and will *not* work out *very well*, no matter how hard we try. We are working to salvage what is valuable and protect as many people and species as we can, but many will die. Many people are also going to become mentally ill.
  - "We must be civil at all times." Civility and politeness trump truth and the reality of suffering.
  - "We are stronger if we all work together" (called "communitarianism"). See Richard Sennett (Corrosion of Character), Benjamin DeMott (Junk Politics), or Simone Weil ("The Great Beast").
  - "The situation is hopeless." This just another version of saying there is no problem *for me*: *it is not my responsibility.*
  - "The universe (God, Buddha, the purification at the end of the age) will take care of it." (nihilism)
  - "Everyone has their own truth." There is neither objective truth nor objective morality.

#### More:

- "It will be 'very costly' to solve [X problem]." Costly to whom who pays and who receives? Costly compared to what?
- "Something needs to be done but there is a technique" which we or others can discover, if we are clever, that will solve the problem without significant political, social, economic, or ecological rearrangement. This could be a pure technical fix, or an economic fix involving new markets and the monetarization of some heretofore unpriced public good. What is usually being avoided is justice, the touchstone of real success. There is much excellent about technology or markets, but effective solutions to the compounding crises we face today use and master these tools rather than be used and be mastered by them. The core is justice: respect for the human person in the living landscape, especially and specifically the poor, and expressed first of all in material terms.

#### What can and should NM leaders do? Messages & actions (3)

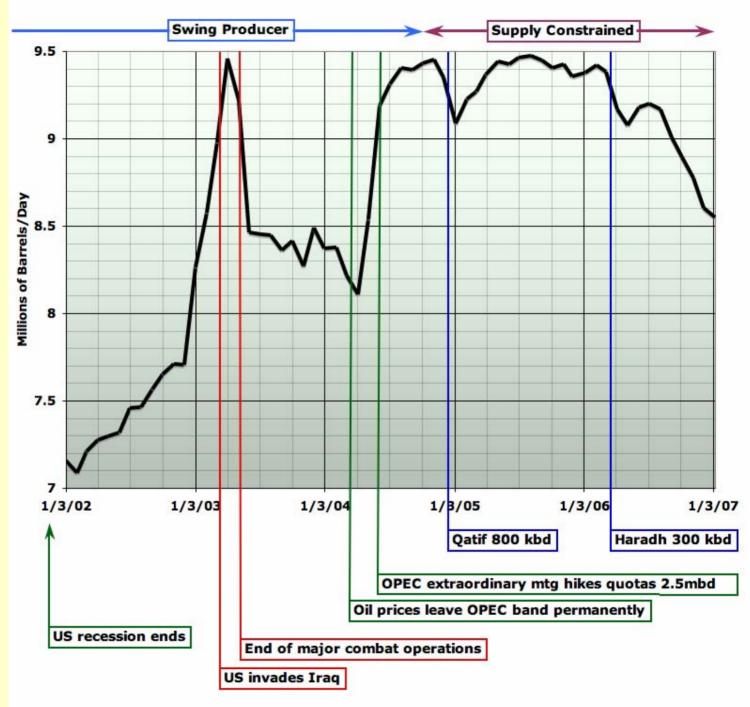
- Who speaks? We do, first and foremost. We aren't trying to get others to do what we must do.
- <u>To whom? First and foremost to political leaders, business elites, and those entrusted with the management of our civil society institutions</u>. Our communications to wider audiences do not presume mass action but are aimed at the very small number of people who are actually making decisions today. Over the past two decades the practicality of movement-based activism has declined dramatically.
- <u>We want these people to take very specific external, real-world political and policy actions.</u> We don't care about anybody's "attitude" or "intentions," which are not categories of action. For example, we want Senator Bingaman to put a stop to construction of the CMRR facility and to halt pit production here, decisions over which he has complete power. We aren't interested in the politics of empathy.
- Other factors being equal, effectiveness depends on clarity, fidelity to understood fact and tacit moral truth, and the speaker's commitment. Clear, committed views are very powerful. Nuclear weapons, broadly and deeply condemned around the planet, by the U.S. public, and attracting no affection even in the minds of most LANL workers, are very vulnerable to public condemnation by community leaders.
- Conversely, the failure, especially by liberal elites up to now, to condemn nuclear weapons is perceived by their advocates as a powerful signal of support a bright green light. Given the profound internal and external obstacles faced by the nuclear weapons enterprise, our regional passivity especially is a necessary enabling factor.
- <u>The January 4, 2007 George Shultz et. al. editorial has re-opened conventional political space to include the entire range of disarmament options.</u> Paul Nitze was an earlier (1999) occupant of this space, with a similar resume. The timid, contradictory, and ultimately ineffectual positions of the Clinton Administration (and Richardson today) are significantly more hawkish than the former ultra-hawks.
- <u>The energy/climate/ecological/economic/imperial crisis is now sweeping all before it.</u> Everyone's security is really threatened, so <u>boldness is necessary (but insufficient).</u> As Brzezinski has said, the "war on terror" is a very dangerous trope. <u>Better: human security, in a living landscape.</u>

I think Saudi oil production (curve to right) has peaked.

I think world oil production has peaked.

(from Stuart Staniford, "Depletion Levels in Ghawar," 5/15/07, http://www. theoildrum.com/ node/2470#more.)

This affects our work mightily.



The priorities embodied in nuclear weapons, which we all too often enable with our silence, are destroying life on earth.

Successful efforts to prevent climate catastrophe are incompatible with today's level of militarism for any number of reasons.

We must firmly say "no" to technologies of mass death or we will be unable to muster a wholehearted commitment to life, not to mention the money, attention, and labor to protect it.

(chart from *The Economics of Climate Change,* aka 'The Stern Review,' UK Treasury, 2006.)

