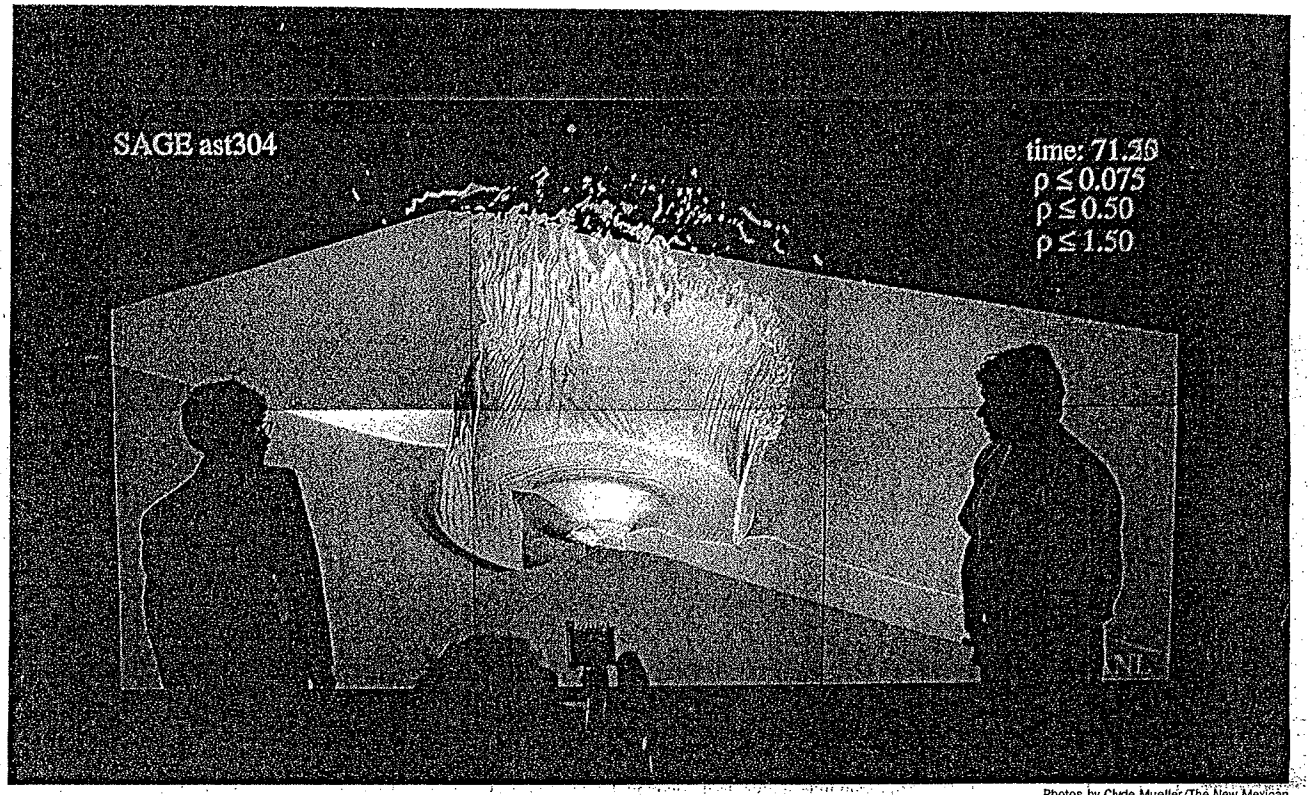


Photos by Clyde Mueller/The New Mexican

With supercomputing power, scientists show a simulation of an asteroid impacting the Pacific Ocean. Advancements in computing technology will enable three-dimensional simulations of a nuclear explosion that will allow scientists to gain valuable information on the maintenance and certification of the U.S. nuclear-weapons stockpile without underground nuclear testing.

LANL dedicates 'Q' supercomputer

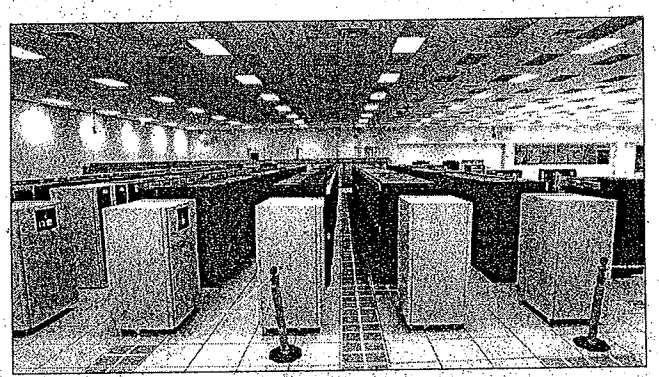
$215 million computer destined for nuclear-weapons calculations

By JEFF TOLLEFSON
The New Mexican 5/18/02

Los Alamos National Laboratory on Friday formally dedicated a new supercomputer called "Q," billed as the next step in the U.S. Department of Energy's efforts to maintain the nation's nuclear-weapons stockpile.

The $215 million computer, complete with its own $93-million building, is only partially installed, but lab officials say the machine should have a peak capacity of more than 30 trillion operations per second once it is fully operational later this year. Compaq — recently acquired by Hewlett-Packard — is building the machine. Officials said Q would be the second-fastest supercomputer in the world because Japan recently unveiled a machine capable of 40 trillion operations per second.

Ultimately, the supercomputer is destined to run weapons codes simulating nuclear explosions as part of a larger effort to understand and maintain existing nuclear weapons — and perhaps test potential modifications under consideration by the current administration — without actually exploding them. In observance of an international treaty that has yet to be officially ratified, current U.S. policy does not allow for full-scale nuclear tests.



The first phase of the Q computer has been installed in the 43,500-square-foot computer room in the Nicholas C. Metropolis Center for Modeling and Simulation at Los Alamos National Laboratory. The 'Q' is one of the world's largest computers.

Joined by U.S. Sen. Pete Domenici, R-N.M., and National Nuclear Security Administration head John Gordon on Friday, the lab also dedicated the 303,000-square-foot Nicholas C. Metropolis Center for Modeling and Simulation, named after one of the original Manhattan Project scientists who died in 1999.

At the core of the building is a 43,500-square-foot computer room, roughly three-quarters the size of a football field and big enough to hold two supercomputers at once in case of future replacements. Below is a massive air-conditioning system that pushes cold air through the floor to keep the room at 65 degrees. Exhaust stacks on the side of the building exhale hot air. The building also holds more than 300 offices along with gathering rooms and a small theater where researchers can watch their weapons codes play out in three-dimensional simulations.

"It's been built for supercomputer computing and to help people who use those tools, primarily, in this case, our weapons designers," said John Bretski, director of the Metropolis building project. Bretski said the facility will house theoreticians, experimentalists and computer scientists who try to translate physical concepts into codes for the supercomputer.

An equal amount of interpretation is necessary at the other end, which is where the 3-D simulations come in. Lab officials passed out goggles so journalists could watch

Please see **LANL**, Page B-4

LANL

Continued from Page B-1

sample 3-D models, including a colorful and detailed splash simulation of an asteroid striking the Pacific Ocean (one month's computer calculations went into less than a minute's visual).

"Understanding what comes out of these ... machines requires a visual approach, and we are looking at various aspects of doing that," said the lab's Bob Tomlinson.

DOE instituted its Advanced Simulation and Computing Program in 1995 with the goal of developing a computer capable of completing 100 trillion operations per second by 2004, which means more supercomputers are to come. Officials say they are now aiming for 2005. Lawrence Livermore Laboratory is building another supercomputer center, while Los Alamos officials say the Metropolis Center was designed to hold much more powerful supercomputers in the future.

John Morrison, leader of the Computing, Communications & Networking Division, said that kind of computational power is needed to run the weapons codes satisfactorily. Only recently, he said, it took eight months to compute the first complete weapons code, which ran largely on the current computer at Lawrence Livermore National Laboratory.

Although lab and DOE officials maintain this kind of research plays a crucial role in maintaining reliable nuclear weapons, the stockpile stewardship program, as it's known, has a host of critics both locally and nationally who say a back-to-basics approach might be much more effective — and less costly.

Greg Mello of the Los Alamos Study Group says the DOE is dumping money into a program that is full of unanswerable questions: How can anyone be sure that a mathematical calculation and its result truly represent real-world physics in any one of the thousands of bombs in the U.S. arsenal?

"If a big computer was needed, then how many of them do we need? I say one," Mello said Friday, referring to an apparent leap-frog effect in supercomputer acquisitions by national laboratories. "And there's a problem with the codes. The whole idea of doing this requires a lot of other elements to come together, and it's not clear that the other elements are coming together."

The program would be better off conducting strict examinations of existing weapons and replacing parts as any problems are encountered, Mello argued.

The DOE Office of Inspector General reported last year that DOE is failing to keep up with the standard annual certification process for weapons, a task that it called the "first line of defense" in stockpile stewardship.

LANL proposal leaves waste sites in place

▶ *State regulators say that decision has yet to be made*

By JEFF TOLLEFSON
The New Mexican

Los Alamos National Laboratory would not clean up nuclear and hazardous materials buried in nine waste dumps, according to a draft "accelerated cleanup proposal" prepared by the lab and local officials with the U.S. Department of Energy.

The proposal is geared toward the Bush administration's proposal to revamp cleanup throughout the weapons complex by creating an expedited cleanup fund to reward alternative agreements with state regulators. The Environment Department has signed with DOE a parallel "letter of intent" agreeing to support the accelerated cleanup efforts, while asking for an additional $1 million annually to do the extra work.

In concert, the two documents are an effort to access the new expedited cleanup fund. Environmental activists fear this kind of unofficial bargaining could improperly influence cleanup decisions. For its part, the Environment Department says it has agreed to general priorities, but has not signed off on any of the assumptions laid out by the lab.

Although state and lab officials have long speculated that the nuclear waste dumps might be too dangerous and expensive to cleanup, no official decisions have been released previously. In the current document, despite general mention soil excavation, the lab explicitly states that its proposal for addressing buried wastes "assumes stabilization in place and institutional controls." The latter term generally refers to restrictions on future land uses (houses and day-care centers, for instance, probably would not be allowed).

A $20-million project targeting four "material disposal areas" would be complete by 2008, saving $8 million and 5 years, but "long-lived transuranic waste" like plutonium would remain buried, according to the document. An "evapotranspiration cover" — generally earth and vegetation — would be used to keep moisture from seeping into the waste. Other disposal sites would be addressed in a second, $85-million project to complete cleanup at sites around the old plutonium processing plant at Technical Area 21.

The proposal also states that new legislation establishing a framework for long-term "environmental covenants" would play a key role in allowing land to be used for industrial and recreational purposes. These covenants would prevent housing developments, for instance, if the state allows decides to leave pollution in the ground at levels exceeding the residential standards.

Critics like Greg Mello of the Los Alamos Study Group have long feared that the Bush administration's proposal amounts to an extortion fund: DOE takes away cleanup money, and then gives it back if state regulators agree to more lenient standards. The Bush administration proposed to cut cleanup funding at Los Alamos by 37 percent next year, but the expedited cleanup proposal would bring in an additional $200 million over the next five years.

"What this is going to do is basically preclude the possibility of cleanup happening at Los Alamos," Mello said, noting that such closed-door agreements always influence the direction of negotiations between the regulator and the regulated.

But Greg Lewis of the Environment Department said the accelerated cleanup proposal doesn't preclude anything. While his agency has agreed to support these priorities, including final decisions on various waste dumps, Lewis said the ultimate cleanup decisions must follow the regulatory process, incorporating public participation and investigation of various cleanup alternatives. Removal of buried wastes, for instance, would be included in that study, despite the lab's assertions.

"There's nothing binding on us in terms of what actually happens at the site," Lewis said. "(The lab) decided to make that assumption for the purposes of their funding request, but whether that turns out to be true or not remains to be seen."

According to the lab's proposal, an additional $41 million would go to a groundwater program that depends on monitoring "natural attenuation" of pollutants and the use of passive barriers designed to absorb certain contaminants in canyon bottoms. A long-term groundwater monitoring program, along with an official decision on groundwater protection, also would accelerate cleanup decisions in the canyons and on the mesas, according to the proposal.

Although state and federal officials say a better understanding of groundwater movement and the migration of pollution is essential, regardless of how cleanup moves forward, Mello fears that the monitoring wells are a justification for leaving contamination in place. Rather than cleaning up the waste, he argued, the lab would say it's safe to leave it in place given that the monitoring wells would detect any problems before they endanger the public.

Officials with the lab declined to comment. DOE officials could not be reached Wednesday or Thursday to discuss the document.

BINGAMAN SEEKS CRITERIA FOR DISBURSING EXPEDITED DOE CLEANUP FUNDS

Date: May 27, 2002 -

The Senate Armed Services Committee has approved language in the Defense authorization bill that would require the Department of Energy (DOE) to establish criteria for disbursing funds from its controversial expedited cleanup account. Activists, who have blasted the account as "extortion," are praising the inclusion of the language inserted by Sen. Jeff Bingaman (D-NM).

At issue is DOE plans to reduce its cleanup budget by offering financial incentives to states that sign letters of intent to expedite cleanups. Environmentalists have charged that DOE is blackmailing the states into rewriting contracts using lower cleanup standards. "The account gives the secretary [of Energy] a blank check to extort lower cleanup standards from states in exchange for gobs of taxpayer money at the secretary's discretion," one activist says.

The Defense spending bill, marked up by the Armed Services Committee on May 10, requires the Energy secretary to develop criteria for disbursing money from the cleanup fund and publish them in the *Federal Register.* The criteria would then be subject to a 45-day public comment period. If the secretary chooses not to establish such criteria, all the money from the funds reverts to the sites where it was expended during fiscal year 2002. *Relevant documents are available on InsideEPA.com.*

According to the report that accompanied the bill, "The committee is concerned that DOE has substantially underfunded the cleanup accounts and is at risk of violating several of the cleanup agreements."

The net result of the program is that more waste will be left behind at DOE sites, the activist says. "If I say I can clean your office windows faster, cheaper and cleaner, I can do that by only cleaning half the window."

Activists have also charged that DOE is pitting states containing nuclear facilities against one another in a race to secure money from the dwindling expedited cleanup fund, pointing out that DOE has awarded almost half of the $1.1 billion fund to the first two states to sign agreements with the agency.

Tennessee signed a letter of intent with DOE on May 15 to pursue an accelerated cleanup for the Oak Ridge site, making it the second state to do so after Washington. Tennessee's $105 million combined with Washington's $433 million brings the total amount of money awarded from its expedited cleanup fund to $538 million of the total $1.1 billion potentially available under the fund. New Mexico and Idaho are reportedly close to signing letters of intent with DOE for expedited cleanup funds as well, according to sources in those states.

Activists say the letters of intent contain purposefully vague language. "The devil's in the details," says one source. Activists point to DOE's proposed plan to leave waste onsite at Hanford as proof that the agency will do so elsewhere (*Superfund Report*, May 13, p18).

"We are closely monitoring these proposals," the source says.

Source: Superfund Report via InsideEPA.com
Date: May 27, 2002
Issue: Vol. 16, No. 11

Los Alamos Monitor

Friday, May 31, 2002

ENVIRONMENT

Contamination cleanup poses more questions

By ROGER SNODGRASS
lamonitor@lamonitor.com
Monitor Assistant Editor

The New Mexico Environment Department wraps up its public question and answer sessions this week concerning its draft order detailing provisions for accelerated environmental investigations and cleanup of contamination at Los Alamos National Laboratory.

There were more questions than answers at Thursday night's meeting in Santa Fe, as new initiatives by the lab, Department of Energy and the Environment Department itself came to light, distracting attention from the state's action, a "Section 13 Order" under the authority of the state Hazardous Waste Act.

The administrative order, a comprehensive plan to fully investigate and fully clean up waste sites at LANL, details specific requirements for dealing with high priority sites and ongoing projects. The draft is based on a formal finding of "imminent and substantial endangerment" from the release of contamination by the laboratory into the environment.

Meanwhile, the laboratory has notified the department of its intention to dispute that finding in court, according to state officials.

Linn Tytler, speaking formally for the laboratory after the meeting, said, "We share the interests of NMED and New Mexico citizens and will

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CONTAMINATION Laboratory disputes findings of DOE

From Page 1

continue our efforts to reduce the laboratory's impact on the environment."

She added, "We disagree with NMED's determination that '...there may be imminent and substantial endangerment to human health and the environment.'"

The Environment Department has maintained that, while courts have not ruled on the matter in New Mexico, elsewhere courts have supported a broad interpretation of the regulator's right to make such a finding, even without an immediate and proven risk, if there could be a potential risk in the future.

James Bearzi, hazardous waste bureau chief for the department, said, "At the very least there's groundwater contamination that the department believes is certainly derived from laboratory operations."

That alone could justify the finding, he implied.

Also discussed during the meeting was news that state and federal officials were about to reach an agreement on speeding up cleanup work in the weapons complex statewide.

During the public meeting in Santa Fe, Environment Department officials were asked if the pending national agreement would supercede the massive cleanup order they were proposing.

Bearzi described the letter of intent in the works among the state, DOE, and the Environmental Protection Agency as "an agreement in principle" that describes "high and lofty principles."

"It's just a letter," he said, "and not legally enforceable. It does not supercede any part of the order."

Blake Trask of the Los Alamos Study Group pursued the question, noting that the letter of intent appeared to rely upon the hypothetical passage of a new state law allowing land use covenants that might weaken restoration requirements. DOE land proposed for remediation and transfer to Los Alamos County, for example, might be cleaned up to industrial standards, rather than residential standards, effectively lowering the cost and potentially the environmental condition of the land.

Bearzi agreed that the department has favored passage of such a law in the past at the state legislature, but said that under current law the "can't get it done without l ting residential" levels cleanup.

The Environment Depa ment's order has been cr cized by Nuclear Watch of N Mexico for not doing enou about the cleanup.

In answer to a questi from the audience about schedule, Bearzi said the p was "long on investigation a short on cleanup."

"This should have be done 10 years ago, and the e of the cleanup isn't in here."

Bearzi said his last questi and answer session was to held today at the Northe New Mexico Citizen's Advis Board retreat in Taos.

Publication: Jnl Legacy 1995 to July 2005; Date: Jun 3, 2002; Section: Final; Page: 4

Date:-06/03/2002 Edition:-Final Page:-A1

Looking Inside A Nuke Explosion

By Jennifer McKee Journal Northern Bureau

SECOND IN A SERIES

* Scientists debate the necessity for new X-ray machines in weapons maintenance

Depending on whom you ask, DARHT is:

* At $260 million, an enormous, reasonably priced X-ray machine that will one day be able to take three-dimensional pictures of the milliseconds before a nuclear explosion from inside the bomb.

* A gold-plated luxury that has been in the planning stages for 15 years and still isn't finished, even as the federal Energy Department spends money planning its replacement an even bigger machine that could cost up to $900 million.

The two views of DARHT the Dual-Axis Radiographic Hydrodynamic Test Facility, housed on a clearing among the trees at Los Alamos National Laboratory make it the poster child for the debate surrounding Stockpile Stewardship, the $5.5 billion per year program conceived eight years ago to maintain nuclear weapons using science alone and eliminating test explosions.

DARHT was originally conceived in 1987, said Mike Burns, head of the machine's operations, when the United States was still manufacturing new nuclear weapons and still testing with explosions under the sands of Nevada. It was designed to replace PHERMEX, a similarly huge X-ray machine built in 1962, when Burns was a year old.

"Most of the people working on PHERMEX now are younger than the machine," he said.

A replacement was in order.

DARHT got its first money from the Energy Department in 1988, and, at the time, its designers thought DARHT would be just another machine to test the reliability of nuclear weapons on their way to explosive tests for the final "gold standard" guarantee. DARHT was supposed to be slightly better than its predecessor.

By 1992, however, the Cold War was over. America quit making new nuclear weapons and quit testing its existing ones. And scientists at the nation's nuclear labs had a whole new mission: verifying that our existing weapons work by understanding every detail of nuclear explosions, but without the benefit of actual test blasts.

"DARHT went back to the drawing board," Burns said.

That delayed development and drove up costs. But the result is the first facility in the world that can take a series of three-dimensional X-rays of the first part of a simulated nuclear weapons explosion with

remarkable detail.

DARHT does it with two enormous electron beam accelerators used to produce a huge amount of X-rays. The X-rays have to be made at just the right time in incredibly quick bursts.

"It's like a camera with a shutter speed of 60 billionths of a second," Burns said.

Burn's team doesn't explode a real pit the plutonium sphere inside every nuclear bomb that must function perfectly to make a nuclear bomb work because that would result in a real atomic explosion.

Instead, they build every part of what it would take to explode a pit, such as detonators and high explosives, and replace the pit with a metal that behaves something like plutonium or a metal that scientists happen to know a lot about.

Because X-rays travel through walls, the explosion takes place outside. DARHT "shots," as they're called, are massive explosions but not nuclear.

The information gleaned from DARHT is plugged into older computer simulations of actual nuclear weapons blasts. The simulations, based on old nuclear explosions at the Nevada Test Site, are not complete. The point of DARHT, according Burns, is to make the codes as complete as possible and expand them to more accurately describe an imploding weapon.

Also, by providing information on an implosion in action, DARHT can help determine if age-related problems either in the plutonium or dozens of other parts in a so-called "nuclear primary" are significant enough to render a weapon a dud.

Testing hurdles

DARHT has not been without controversy.

Lawrence Berkeley lab in California, a small sister lab to Los Alamos, had an enormous X-ray machine that in 1997 ran afoul of the city government of Berkeley, where the lab is located.

A Berkeley ordinance bars work on nuclear weapons within the city limits. But the Berkeley lab director argued that DARHT would help reduce the number of nuclear explosions, not proliferate nuclear weapons.

The Berkeley City Council was appeased.

Today, the last of the Berkeley-designed equipment is being installed at DARHT in Los Alamos.

Closer to home, construction was halted for a year and half after a lawsuit was filed in late 1994 by the Los Alamos Study Group and Concerned Citizens for Nuclear Safety, two Santa Fe-based lab watchdog groups. The suit contended that the lab and DOE were required by federal law to conduct a study of possible environmental problems DARHT could cause. U.S. District Judge Edwin Mechem sided with the watchdog groups.

The resulting environmental impact statement calls for a "containment vessel" for DARHT that deals with some of the activists' bigger concerns: that using depleted uranium, a mildly radioactive leftover from processed uranium, as a plutonium "stand-in" for a DARHT test shot could spread radioactivity around the Pajarito Plateau.

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Replacement plan

Christopher Paine, of the Natural Resources Defense Council, a New York City-based environment and policy group, said that, while he thought DARHT's predecessor machine was probably up to the job of studying imploding pits, he doesn't begrudge Los Alamos the much fancier DARHT.

But DARHT is already on its way to being superseded.

According to Burns and numerous studies, DOE is planning what's known as the Advanced Hydrotest Facility, DARHT's replacement. This machine is about 10 years down the line, Burns said and, by some estimates, will cost about $900 million.

The AHF will be similar to DARHT in that it will take X-rays of an imploding pit, except where DARHT has two X-ray machines, AHF will have several. Early conceptual drawings envision tunnels through Los Alamos' Pajarito Plateau to house newer X-ray machines.

"Do we need the Advanced Hydrotest Facility? No," Paine said, "not if the goal is to maintain nuclear weapons."

He calls DARHT and the AHF part of the "long-term Stockpile Stewardship fantasy" of not only improving the old computer codes used to describe nuclear explosions but replacing that information altogether.

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"I'm not against knowing more about them, but there's no rush to do so," Garwin said. "We never really understood everything about them."

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Date:-06/03/2002 Edition:-Journal North Page:-1

Scientists Debate Need for X-Ray Machine To Study Nukes

By Jennifer McKee Journal Northern Bureau

SECOND IN A SERIES

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LANL Might Close Pajarito Road

Lab Cites Possible Threat to Nuke Areas

6/6/02

BY JENNIFER MCKEE
Journal Staff Writer

Los Alamos National Laboratory officials are considering closing a main road to the lab — one that runs past two areas where the lab stores radioactive materials — citing security concerns.

Pajarito Road, which runs from White Rock to the laboratory, passes two nuclear areas, the contested Technical Area 18, which has long been considered a security threat, and Technical Area 55, closer to the heart of the laboratory.

According to lab information, security experts are considering curtailing public access to the road. The plan would likely allow registered cars — possibly Los Alamos cars only — to have access except in cases of a security emergency.

"The intent is to put something in place that would allow the lab to immediately curtail the road to nonlab employees, but at the same time the lab realizes this route is heavily used by school busses, commuters and other residents," said John Gustafson, a lab spokesman.

While plans are still in early stages, Gustafson said the lab may likely issue passes to certain vehicles, such as lab employees, school busses and other county traffic. Vehicles without a pass would not be admitted.

Pajarito Road is not the only way to the laboratory. Two other roads — over which the lab has no control — serve the lab.

Pajarito Road is on Energy Department property and is a DOE road, according to the Los Alamos County Engineering Office. That means the lab could close the road without any input from the county.

The idea of restricting access on the road was greeted with mixed reviews.

Santa Fe lab watchdog Greg Mello of the Los Alamos Study Group said the closure would be a good thing for security.

"It is not a panacea, but it is an improvement," Mello said.

Closing the road would keep "terrorists from driving trucks of liquid fuel up Pajarito Road and blowing up nuclear materials," Mello said. "It's a realistic acknowledgement of the dangers of the site."

Peter Stockton, a former high-ranking Energy Department official currently working with the Project on Government Oversight in Washington, D.C., said closing the road doesn't solve all the problems with Technical Area 18, a nuclear experiments facility in the bottom of a canyon separated from the rest of the laboratory.

"It does help somewhat with truck bombs," Stockton said, "but it doesn't do a damn thing for other terrorists."

Stockton said the buildings in TA-18 should be moved to a safer location, something the laboratory is in the process of planning.

Method Traps Radioactivity

Waste Is Baked Underground

BY JENNIFER MCKEE
Journal Northern Bureau

Onlookers outside the lab say vitrification could be a good way to deal with radioactive waste, provided some kinks in the process can be worked out, like cost and safety problems.

SANTA FE — Tired of taking out the trash? Try heating it to 3,632 degrees Fahrenheit and baking it into a huge block of glass.

Just such a process — known as vitrification — has been used to deal with large-scale industrial waste for years. For the past two years, scientists at Los Alamos National Laboratory have been experimenting with using the method in a new way. They're vitrifying radioactive waste right where they find it — buried.

The experiment isn't finished yet, said Becky Coel-Roback, leader of the materials disposal team that conducted the vitrification. The lab's enormous block of glass has only recently cooled, and crews spent last week drilling samples out of the center of it for study.

But, Coel-Roback said, vitrification seems to hold promise. Onlookers outside the lab say vitrification could be a good way to deal with radioactive waste, provided some kinks in the process can be worked out, like cost and safety problems.

The technical name for Coel-Roback's experiment is a mouthful — nontraditional in-situ vitrification. What scientists did, she said, was fairly straightforward. In April 2000, crews ran current through a section of rock tainted with americium, plutonium, uranium, strontium and tritium — all radioactive elements. The rock was a small part of a trio of ponds used to hold waste water from a lab laundry that washed tainted clothes between 1945 and 1961.

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Today, the underground block has cooled to about 100 degrees, Coel-Roback said.

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Coel-Roback said she doesn't know how much the experimental vitrifying costs.

Mello also said the technology is not good for every kind of rock. Rock or soil with water in it can lead to steam explosions, he said, an event that has happened in other vitrifying projects.

The bottom line, he said, is the technology may be more novel than useful.

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Publication: Jnl Legacy 1995 to July 2005; Date: Jun 9, 2002; Section: State; Page: 51

Date:-06/09/2002 Edition:-State Page:-A1

Meltdown Traps Radioactivity in Ground

By Jennifer McKee Journal Northern Bureau

* Experimental method bakes dangerous waste into glass without exposing it

Tired of taking out the trash? Try heating it to 3,632 degrees Fahrenheit and baking it into a huge block of glass.

Just such a process known as vitrification has been used to deal with large-scale industrial waste for years. For the past two years, scientists at Los Alamos National Laboratory have been experimenting with using the method in a new way. They're vitrifying radioactive waste right where they find it buried.

The experiment isn't finished yet, said Becky Coel-Roback, leader of the materials disposal team that conducted the vitrification. The lab's enormous block of glass has only recently cooled, and crews spent last week drilling samples out of the center of it for study.

But, Coel-Roback said, vitrification seems to hold promise. Onlookers outside the lab say vitrification could be a good way to deal with radioactive waste, provided some kinks in the process can be worked out, like cost and safety problems.

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PHOTO BY: COURTESY LANL

PHOTO: b/w

SAFER THAN BEFORE: A member of a material disposals team at Los Alamos National Laboratory holds a core sample taken from a vitrification test recently conducted on radioactive waste. On the table is material from the top of the melt, described as the "transition" between melted and unmelted material.

Method Used To Trap Radioactivity in Ground

Dangerous Waste Baked Into Glass

By Jennifer McKee 6/9/02
Journal Staff Writer

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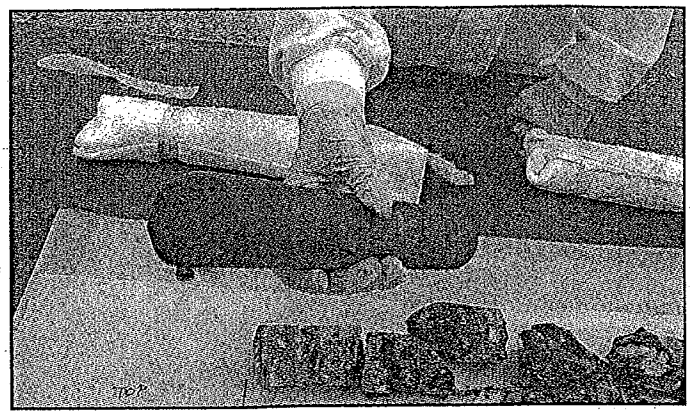
See **RADIOACTIVITY** *on* **PAGE 3**



COURTESY LANL

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Radioactivity Trapped Underground

from **PAGE 1**

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LANL Eyes Storage Unit

■ *Lab considers building for radioactive waste drums now held in tents*

BY JENNIFER MCKEE
Journal Staff Writer

Federal officials are mulling the idea of storing thousands of drums of nuclear waste at Los Alamos National Laboratory in a concrete building, instead of the enormous, white tents that currently house them.

The announcement was hailed by local environmental groups that have been pushing for such a move for years.

Joe Vozella, associate director for facility operations at the Energy Department's Los Alamos office, said Tuesday the team of DOE and lab employees who manage the hundreds of millions of dollars allocated to clean up after the Cerro Grande Fire are thinking of spending around $5 million to build a large nuclear waste storage facility.

"We're looking at something more permanent, more robust, that could potentially withstand an earthquake or some other accident," Vozella said.

Right now, thousands of 55-gallon drums of nuclear waste are stored on a mesa top called Technical Area 54 at the lab, housed in large plastic tents. All of that waste is destined for the Waste Isolation Pilot Plant in Carlsbad and is stored in tents only until it can be shipped.

But according to some earlier lab estimates, that waste may not leave the mesa top for decades, a situation that prompted a coalition of watchdog groups to ask the DOE to store the waste in something safer than a plastic tent.

"We wish that DOE would have done this after the (1996) Dome Fire," said Joni Arends of Concerned Citizens for Nuclear Safety, one of the groups that pushed for a permanent storage building. "It's good that it's happening now."

But the building is not yet a done deal, Vozella said. The lab and DOE have started two new programs recently designed at getting the waste shipped to WIPP sooner. One plan calls for getting the 2,000 most radioactive drums to WIPP within two years. Another calls for getting all the transuranic waste at the site shipped off by 2010. The waste consists of anything from gloves to old machinery contaminated with uranium, plutonium or other radioactive elements.

So just how necessary the proposed new building might be is still up in the air. Vozella said the team has not yet decided to build the structure but is trying to weigh the cost and usefulness against the other two programs.

Furthermore, the building would not house all the drums of nuclear waste at the site, only the 2,000 most radioactive.

The building would be between 7,000 and 10,000 square feet and would be built with money left over from the Cerro Grande Fire.

"We're very happy they're considering it," said Greg Mello of the Los Alamos Study Group, another of the watchdog groups.

LANL Offering $2.5 Million in Bonuses

Program Targets Nuclear Workers

By Jennifer McKee 6/14/02
Journal Staff Writer

Los Alamos National Laboratory intends to spend up to $2.5 million in coming years on bonuses to nuclear workers at the laboratory, including those who deal with plutonium.

Starting July 1, lab workers in the LANL Chemical and Metallurgy Research and Technical Area 55 laboratories can sign up for yearly bonuses ranging from $2,400 to $6,000, according to lab information.

To be eligible, workers must have worked at the labs for a year or more, have a special security clearance and other certifications. They must be doing satisfactory work and have no disciplinary problems.

Lab spokesman John Gustafson said that up to 550 employees could be eligible for the bonuses. The lab expects to spend up to $500,000 this fiscal year, which ends in September, on the bonuses and up to $2.5 million a year thereafter.

The bonuses were announced in the online lab employee newsletter.

According to a lab memo also published online, the incentive program was started because the lab needs to keep and attract good nuclear workers.

The employees targeted by the program do some of the most important work at the lab, Gustafson said. At TA-55, the lab plans to manufacture the nation's first nuclear bomb trigger since 1988. Those same employees work with the plutonium used to heat satellites in space.

This is the second incentive program the lab has initiated in two years. In 2000, the lab gave a one-time $5.2 million pay raise to 600 computer technicians and other workers with desirable skills.

Lab watchdog Greg Mello, of the Los Alamos Study Group, said he thinks that part of the reason the lab wants to keep nuclear workers happy is the bad safety record of TA-55.

The lab was cited in January 2001 for breaking federal nuclear laws with a string of nuclear accidents and near-misses.

In the most serious accident, five workers were contaminated with plutonium at TA-55, one of whom took several times the radioactive dose of plutonium that federal law allows. That employee can never work with nuclear materials again and has been transferred to a different job.

That accident prompted then-Energy Secretary Bill Richardson to call for stiffer safety regulations. An independent team of investigators later determined that the accident was preventable.

"These people stand a chance of being contaminated themselves," Mello said. "Nobody wants to work there."

6-16-02

Plutonium pits and LANL's Nuclear future

The lab expects to certify its first trigger for the W-88 warhead in 2007 at a cost of $1.7 billion. But in an era of nonproliferation, critics question the need for a Cold War-era manufacturing capacity.

Story by Jeff Tollefson ♦ The New Mexican

Inside Technical Area 55 at Los Alamos National Laboratory, workers machine heavy, hollow orbs of plutonium that trigger thermonuclear bombs. Glove boxes and other equipment allow them to handle this man-made metal safely.

One day, one of these triggers, called pits, is likely to be certified for use in a W-88 warhead carried by the Trident submarine. A 475-kiloton bomb, the Los Alamos-designed warhead is 30 times more powerful than the one dropped on Hiroshima.

This activity is not entirely new. Pit manufacturing began at Los Alamos in the early nuclear years, and the lab has always built a small number of test pits. But in 1996, seven years after the closure of the old pit-manufacturing site at Rocky Flats in Colorado, the U.S. Department of Energy designated Los Alamos as a temporary site to build the W-88 pit.

"The next pit we do will not be $1.7 billion."

DON McCOY
deputy associate director for weapons physics at Los Alamos

The lab reports it has completed about a dozen test pits since the effort began in 1996. The first certified pit — ready for installation in a nuclear warhead — is scheduled for release in 2007, although the DOE inspector general has questioned whether the lab would be able to meet that goal. Los Alamos has 700 to 800 people working directly or indirectly on the pro-

Please see **PITS,** Page A-6

Inside

- President Bush's Nuclear Posture Review considers nuclear weapons to attack underground enemies, an idea that raises questions in political as well as scientific arenas.
- Los Alamos National Laboratory aims to consolidate nuclear facilities at Technical Area 55.

Stories on Page A-6

Plutonium pits and LANL's future

Pits: Critics question need for more production

Continued from Page A-1

ject. Total cost from 2001 to 2007: $1.7 billion.

"The next pit we do will not be $1.7 billion," said Don McCoy, deputy associate director for weapons physics at Los Alamos. Although working on a single pit at present, McCoy said the lab is developing a process that can be used to build and certify pits for different nuclear weapons without nuclear testing. Once the W-88 project is up and running, he explained, Los Alamos could move on to other pits.

Local nuclear activists feared such an outcome more than a decade ago. With pit manufacturing come safety issues and the inevitable increase in nuclear waste. Rocky Flats carries a notorious environmental legacy, but most agree the process is much cleaner today.

"Making pits has never been safe, and it won't be safe. It can be made safer, and I'm sure Los Alamos is working on that, but it's not a nice process," said Greg Mello of the Los Alamos Study Group. "But the deeper problems have to do with a commitment which could have a lot of unintended consequences for nonproliferation and U.S. security."

From Mello's perspective, Los Alamos, as a nuclear-weapons research facility, has a vested interest in new designs. If these were approved, it would increase the possibility that the DOE might one day say it cannot prove beyond a doubt — without a nuclear test — that a given weapon is reliable.

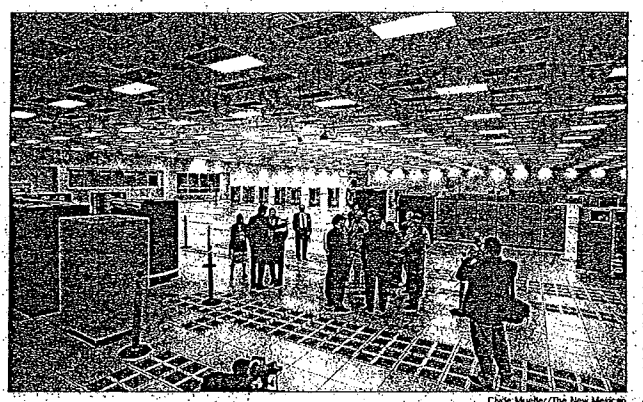
The Bush administration talks about both new designs and the potential return to testing in its nuclear-posture review. The administration announced May 30 it will pursue plans for a full-scale pit-manufacturing facility that would begin operating in 2020, sparking further criticism from the disarmament crowd.

Until then, however, pit production belongs to Los Alamos. In the case of the W-88, Los Alamos officials say that job came about because Rocky Flats simply didn't make enough spare pits for the bomb before closing; a certain number of pits are cut open and destroyed to check for flaws during routine maintenance. But the mission runs much deeper than that.

Anatomy of a pit

So how, exactly, does a pit — or thermonuclear bomb trigger — work?

Conventional explosives compress the plutonium pit, a hollow orb often compared to a grapefruit in size, until it reaches a critical density. Energy from the fission reaction in the plutonium, boosted by fusion in a deuterium-tritium mixture, triggers the secondary hydrogen bomb, which provides the bulk of the device's military might.



Clyde Mueller/The New Mexican

Journalists tour the computer room in the Nicholas C. Metropolis Center for Modeling and Simulation at Los Alamos National Laboratory as the first phase of the Q computer is installed. Q will run weapons codes as part of the lab's effort to certify pits and nuclear weapons.

Of course, this is a gross oversimplification. It also occurs unimaginably fast. And just as a tiny amount of material holds an enormous amount of nuclear energy, small changes in shape, design, materials and timing can have large consequences on bomb performance.

Weapon designers say it used to be easy to measure these effects: Blow up a test bomb. Most recently, this took place underground at the Nevada Test Site. The United States halted such activities in 1992, however, after its 1,054th nuclear test.

Los Alamos now uses other methods, including standard tests on explosives; computer modeling — the lab has a new computer facility; radiography, or imaging of simulated explosions conducted at the as-yet-incomplete Dual-Axis Radiographic Hydrodynamic Test Facility; and a host of other analyses. It's pretty much the full suite of science behind the current weapons-research program, since certifying a new pit is akin to certifying a new weapon.

Skeptics note that Rocky Flats didn't shut down all that long ago, while LANL has been manufacturing five to 10 test pits annually for years. Why is it so difficult now? LANL's McCoy said the lab started out in a similar mind-set in 1995. "But what happened was people came in and said, 'Well, prove to me that it will work, without a test.' And we've never been asked that question before."

McCoy said the lab has hired a lot of people from Rocky Flats — some say it picked up their expertise to assure the lab would get the pit-manufacturing job. Even so, LANL cannot exactly replicate many of the processes used at Rocky Flats. McCoy notes that in many cases chemicals and lubricants once commonplace at Rocky Flats are not allowed under current environmental rules.

Either way, from McCoy's perspective, the entire plutonium culture has changed. Designers never really had to understand plutonium before. They knew it would blow up, and that was good enough. All the weapons were replaced every 10 to 15 years anyway, he said. "We didn't have a reason to build a lot of experimental data on materials and properties."

Understanding plutonium

Now, laboratories want to understand exactly what plutonium is and how it behaves, he said, since predicting with confidence exactly how a bomb will behave is much more difficult than measuring the results of a test.

Ultimately, the questions Los Alamos is asking about its new pits must also be answered for the old ones. Much as the fenders on an old truck gradually give way to rust, radioactive decay gradually changes the make-up of plutonium in pits. It isn't clear, however, exactly what happens as pits age. To date, no pits have been pulled from the stockpile due to aging problems, according to McCoy, but how can the labs be sure about the future?

The Energy Department has set out on what is by any account an increasingly expensive project, dubbed Stockpile Stewardship, in search of proof the nuclear arsenal is up to snuff. The oldest weapons date back perhaps 25 years, since the stockpile used to be entirely replaced every decade or two, according to the lab. Critics point out that the DOE is spending much more on nuclear weapons now than it did during the Cold War, but McCoy said the program was not designed to save money. The alternative to testing, he said, is much more difficult.

"The country made a policy to stop testing, based on nonproliferation. ... The goal wasn't to be cheaper," he said. "It was to make sure that weapons didn't spread to other countries and to send a message."

It used to be that computer codes only had to be good enough to indicate when a design was ready for testing. "Now," he said, "we're still in a situation where we know our codes are wrong, but we're being asked if everything is OK."

Nonetheless, just as the lab cites proof as the overriding concern in certifying a pit, critics say the DOE has no proof it needs any new pits, let alone the full-scale production facility proposed last week by the National Nuclear Security Administration, which is charged with Stockpile Stewardship. NNSA officials say the facility could be capable of producing around 250 pits annually, although watchdogs cite the administration's overarching Nuclear Posture Review in saying the facility design might allow for 500 to 600 pits annually.

NNSA officials say such questions are premature since the proposal is only in the initial planning stages. Estimated at $2 billion to $4 billion, the plant would open in 2020, according to the agency.

Coupled with what many see as an overall effort by the Bush administration to boost the nation's nuclear capabilities, this project has raised the ire of critics who say the United States is planning an expensive and unnecessary return to the Cold War era. Why create a massive manufacturing capacity when, according to the treaty recently signed by Presidents Bush and Vladimir Putin of Russia, both nations' active arsenals would be reduced to 1,700 to 2,200 active nuclear weapons by 2012?

"When the country has almost 15,000 plutonium pits, why we would need a facility to manufacture new ones is quite extraordinary. How much security do you need?" asked Chris Paine, senior analyst at the national nonprofit Natural Resources Defense Council. "After all, one Trident submarine can kill 60 million Russians, as a sample calculation. There just is no justification for a capacity that large other than some oddball nuclear planner's version of what nuclear superiority is."

Paine said the United States would lose all credibility for its nonproliferation policies if it moves forward with such a facility. Like many, he often notes the Cold War is over: "Russians are our friends." Furthermore, Paine is one of many who argue there is no evidence to suggest that pits go bad with age.

"No one has been able to say what the life-limiting factors of the pit are, and they haven't been able to observe any," he said.

Improving with age?

In a 2-year-old paper published in *Physics Today*, University of California-Berkeley Professor Raymond Jeanloz cited various studies, including work by Los Alamos researchers, indicating the interior crystal structure of plutonium might actually "get closer to the ideal crystal structure with increasing age." He cited consensus among specialists that plutonium pits "are stable over periods of at least 50 to 60 years, with the most recent studies suggesting a far longer period."

He underscored these conclusions in a recent interview.

"There have been some remarkable discoveries ... and they all tend to reinforce the idea that this very complicated material ages relatively benignly," said Jeanloz, who is a member of JASON, a group of scientists who offer technical advice to federal policy-makers on national defense.

Nonetheless, Jeanloz is hesitant to come down on either side of the pit-production debate. The issue, he said, is not so much whether we need one now, but whether we should begin preparing for a future date when we might: It could take a long time to go from design to production. At the same time, he recognizes that building a major pit-production facility sends a message to the international community.

For these reasons, Jeanloz advocates for the United States to take the time to gather all the technical expertise before making a final decision.

NNSA spokeswoman Lisa Cutler said the ongoing uncertainty about how plutonium ages is real, but that is only one part of the puzzle.

"The department has determined that we need to have the capacity to manufacture all of the pits in the current stockpile and to be able to respond to any future requirements," Cutler said. "Regardless of the size of the stockpile, it doesn't change the need to have the capacity to produce them (pits)."

McCoy said Los Alamos is not on the list of possible locations for the pit-production facility, while many observers have cited the DOE's Savannah River site in South Carolina as the most likely choice. Nonetheless, Cutler said, all DOE sites are on the table.

From the Natural Resource Defense Council's perspective, the fact that Los Alamos should be able to produce up to 50 pits annually is more than enough security. If more capacity is needed for some reason, the lab could double its capacity, according to Paine. The DOE could also focus on methods of resurfacing the current pit stockpile — as opposed to making hundreds of new ones.

In the end, Paine and others say the only use for a pit facility like that proposed would be for mass replacement of the entire nuclear arsenal — or perhaps to build an entirely new warhead. Rather than pour money into a new pit facility, Paine suggests that NNSA build a modest pit-resurfacing facility at the DOE's Pantex Plant near Amarillo, Texas, where most of the pits are stored.

"The sensible alternative to building all this capacity to build new pits is to have a facility to recycle the pits that we have got," Paine said.

"But the deeper problems have to do with a commitment which could have a lot of unintended consequences for nonproliferation and U.S. security."

GREG MELLO
Los Alamos Study Group

LANL Wants To Do More Pathogen Research

Lab Would Need CDC's Approval

Journal Staff Report

Los Alamos National Laboratory — already registered to handle one strain of anthrax — intends to seek approval from the federal Centers for Disease Control to conduct "security-related" research on additional types of live pathogens, including one that causes plague.

Lab officials revealed last year that LANL is registered with the CDC to handle virulent forms of the Ames strain of anthrax, which was under investigation at the time because of fall's series of letters containing anthrax on the East Coast.

On Wednesday, the lab said in a news release that it plans to request CDC registration to receive and conduct research on other forms of *Bacillus anthracis*, the anthrax pathogen; *Yersinia pestis*, which causes plague; and species of Brucella, which in some forms can cause brucellosis.

"Los Alamos' assistance to federal agencies in the recent anthrax incidents has demonstrated the value of the laboratory's unique capabilities and expertise for rapid analysis of pathogens," said Jill Trewhella, leader of LANL's Bioscience Division.

"The proposed new work will more fully utilize our existing (BioSafety Level 2) capability to evaluate forensics and diagnostic tools and put them into the hands of law enforcement and public health officials to aid in their investigations."

The lab recently received environmental approval from the National Nuclear Security Administration to build a higher-level biological lab, a BioSafety Level 3 facility, for research of live, deadly bacteria, over the objections of anti-nuclear lab watchdog and environmental groups. That facility is not yet in place.

LANL's existing BSL-2 lab standards are comparable to those in a dentist's office and involve gloves, lab coats and masks, LANL said in a news release.

The work LANL is proposing for registration involves DNA analysis, and samples received at the lab could contain residual active organisms. LANL said that all samples would be sterilized after the extraction of DNA "to ensure destruction of any remnant organisms."

LANL's Institutional Biosafety Committee will meet at 10 a.m. Tuesday in the Los Alamos Medical Center basement conference room to consider a proposal to support the research on bacterial samples. The committee provides safety review of such research and must approve any new work on biological materials.

The meeting is open to the public. There will also be a public "poster session" on LANL's biological research projects.

Critics of the lab have argued that the study of deadly pathogens at a weapons labs blurs the line between offensive and defensive research and could attract terrorist attacks. Greg Mello of the Los Alamos Study Group, a critic of the biological research, couldn't be reached for comment Wednesday.

Yucca Mountain

Recently, Sens. Bingaman and Domenici voted to support the government's proposal to open an unsafe dumpsite at Yucca Mountain in Nevada and bring thousands of waste shipments from the East through New Mexico en route to Nevada.

Sens. Bingaman and Domenici could have helped to stop this traveling death threat before it gets started, by voting to uphold Nevada's veto of Yucca Mountain in the Senate Energy Committee. Instead, they cast the two deciding votes to override Nevada's veto in the 13-10 vote. The senators accept DOE claims that Yucca Mountain will be safe and they think that the federal government will develop a plan to safely transport the waste.

New Mexico bears the risks of accidents on the roads and declining property values along transportation routes. We would bear the costs of increased training and equipment for our emergency responders, police and hospitals to deal with possible accidents and terrorist attacks.

Stopping the Yucca Mountain proposal would not end the nation's struggle to find answers to the nuclear-waste problem. It would, however, end the government's obsession with the obviously wrong answer to that problem. We and thousands of other people call on Sens. Bingaman and Domenici to change their position and vote to uphold Nevada's veto when the issue comes to the Senate floor.

6/21/02
New Mex

Greg Mello
Los Alamos Study Group
and nine other
New Mexico organizations

N.M. gains nothing but trouble with nuclear waste shipments

COMMENTARY

GROUP CONTRIBUTION

As if New Mexico doesn't have enough nuclear waste on our roads, the federal government wants to ship even more of the deadly cargo through our neighborhoods, towns and cities. Not just once, but nearly every day for decades.

On June 5, Sens. Jeff Bingaman and Pete Domenici voted to support the government's proposal to open an unsafe dump site at Yucca Mountain in Nevada and bring thousands of waste shipments from the east through New Mexico en route to Nevada.

Sens Bingaman and Domenici could have helped to stop this traveling death-threat before it gets started, by voting to uphold Nevada's veto of Yucca Mountain in the Senate Energy Committee. Instead, they cast the two deciding votes to override Nevada's veto in the 13-10 vote.

The senators accept Department of Energy claims that Yucca Mountain will be safe, they think that the federal government will develop a plan to safely transport the waste, and they want to move forward with solving the waste problem at commercial nuclear power plants in other states.

The senators do not claim that New Mexico benefits from their vote or from the Nevada dump. They are right, we would not benefit. Instead, we bear the risks of accidents on the roads and declining property values along transportation routes. We would bear the costs of increased training and equipment for our emergency responders, police and hospitals to deal with possible accidents and terrorist attacks. And we and many future generations would suffer from the radioactive releases from the Nevada dump site.

Is Yucca Mountain safe? Yucca Mountain is volcanic rock, with dozens of faults, in a major earthquake zone and will not prevent leaks. Rather than depending on the rock to contain radionuclides, DOE says that the storage containers will contain the waste, so long as the "drip shields" prevent water from corroding the containers.

Independent scientists, including some who supported New Mexico's Waste Isolation Pilot Plant, say that the Yucca Mountain site is badly flawed. DOE cannot demonstrate that its plan will work, so, rather than submitting its license application to the Nuclear Regulatory Commission within six months, as current law requires, it will not complete the application for at least three more years.

Will waste shipments be safe? Haven't the 850 WIPP shipments during the last three years been without problems?

While there has not yet been a major accident with WIPP shipments, one truck took the wrong road, several have been stopped in snow storms or have broken down, and about 6 percent violate highway safety standards when they are inspected by the New Mexico Department of Public Safety.

The waste that would be shipped to Yucca Mountain is much more dangerous than what is already on our roads. It is so radioactive that it must stay at the power plants for at least five years. Even then, stand within three feet of unshielded waste, and you're terminal within three minutes. Cancer or genetic damage is a strong possibility within 30 seconds of exposure. The shipping containers cannot fully contain the radioactivity, which is constantly released into the environment, including exposing people who are nearby.

Will Yucca Mountain solve the waste problem? If Yucca Mountain is filled to its legal capacity of 77,000 tons of high-level waste by 2046, which is DOE's "best case" plan, there is expected to be about the same amount of waste — about 46,000 tons — still at power plants that will continue to produce electricity and more waste.

If we don't ship waste to Yucca Mountain, what will we do with it? We will store it as safely as possible at power plants, which the NRC says can be done for decades with existing technology. Then the nation needs to decide how much high-level waste will be generated by nuclear power plants over the next several decades, so that we can plan for the number of dumps that will be needed.

Meanwhile, a scientific process, with extensive public participation, could develop criteria for possible dump sites and for safe shipping containers. Then, potential dump sites that meet the criteria should be selected regionally to reduce transportation risks.

A real solution to some of the future waste problem is not to make so much of it. Conservation, energy efficiencies and a national dedication to renewable energy sources could displace nuclear power. It will take time and commitment, but the sooner we start, the sooner we can put the brakes on at least part of the long-term problem.

Stopping the Yucca Mountain proposal would not end the nation's struggle to find answers to the nuclear waste problem. It would, however, end the government's obsession with the obviously wrong answer to that problem. And it would mark the beginning of an honest search for better solutions, based on science rather than politics and nuclear-industry clout.

Therefore, we and thousands of other people call on Sens. Bingaman and Domenici to change their positions and vote to uphold Nevada's veto when the issue comes to the Senate floor during the next few weeks.

This commentary was written by several people: Don Hancock is with the Southwest Research and Information Center; Sue Dayton is with Citizen Action; Deborah Reade is with Citizens for Alternatives to Radioactive Dumping; Joni Arends is with Concerned Citizens for Nuclear Safety; Greg Mello is with the Los Alamos Study Group; Peter Neils is with the Native Forest Network; Coila Ash is with the New Mexico Toxics Coalition; Jay Coghlan and Jeff Petrie are with Nuclear Watch of New Mexico; Michael Guerrero is with the Southwest Organizing Project; and Sally-Alice Thompson is with Veterans for Peace. All are from New Mexico.

Publication: Jnl Legacy 1995 to July 2005; Date: Jun 30, 2002; Section: Journal North; Page: 2

Date:-06/30/2002 Section:-Opinion Edition:-Journal North Page:-4

LETTERS

Lab Watchdogs Don't Get It Right

I ALWAYS TAKE THE TIME TO READ newspaper articles about LANL. Even for one who works at Los Alamos, specifically the Plutonium Research Facility at TA-55, I learn much from local newspapers about many of the new and important programs "on the hill." I also learn that many times the articles, as hard as the reporter tries, do not always get the information correct. In a reporter's effort to write a story, he or she inevitably seeks out the dedicated lab watchdog, Greg Mello, for comments.

In a recent article regarding bonuses for eligible nuclear workers, Mello made two incorrect statements that are worth my time to correct. Mello stated that TA-55 is unsafe and that "nobody wants to work there." Both these statements are untrue. TA-55 is a safe facility. What is true is that TA-55 is challenging, interesting, and many times frustrating but not unsafe. Finally, many people do want to work at TA-55 and have worked there many years without any additional pay. I am one of them.

In an effort to aid Mello and his team to seek out accurate information about LANL, I plan to donate some of my bonus to the Los Alamos Study Group.

It is my hope that they will use this money, small as it might be, to take the time, to get the facts, and to report them accurately every time they have the chance.

Anthony Drypolcher

Santa Fe

Publication: Jnl Legacy 1995 to July 2005; Date: Jun 30, 2002; Section: Journal North; Page: 13

Date:-06/30/2002 Section:-Opinion Edition:-Journal North Page:-4

LETTERS

Dissidents Won't Tarnish LANL

I WAS JUST SITTING HERE reviewing some of the lab-bashing letters to the editor and newspaper articles over the last few months, especially the letters and articles from the group that refers to itself as the Los Alamos Study Group. This group is so devious that they try to convince people that they represent Los Alamos, when actually their membership is composed of Santa Fe residents.

They like to give the impression that their concern is the environment, but it is obvious that their real aim is to shut down the Los Alamos National Laboratory and destroy its history.

This group is completely sympathetic to the Japanese and critical of the United States for using the atomic bomb to end World War II, which saved thousands of American lives and probably millions of Japanese. They ignore the fact that if there had not been a Pearl Harbor there would not have been a Hiroshima or a Nagasaki. They tend to disregard the fact ... (that) the Imperial Japanese Army was responsible for the rape and murder of thousands of Chinese and (was also) responsible for the loss of thousands of allied soldiers during the (Bataan) "death march" and years of confinement as POWs.

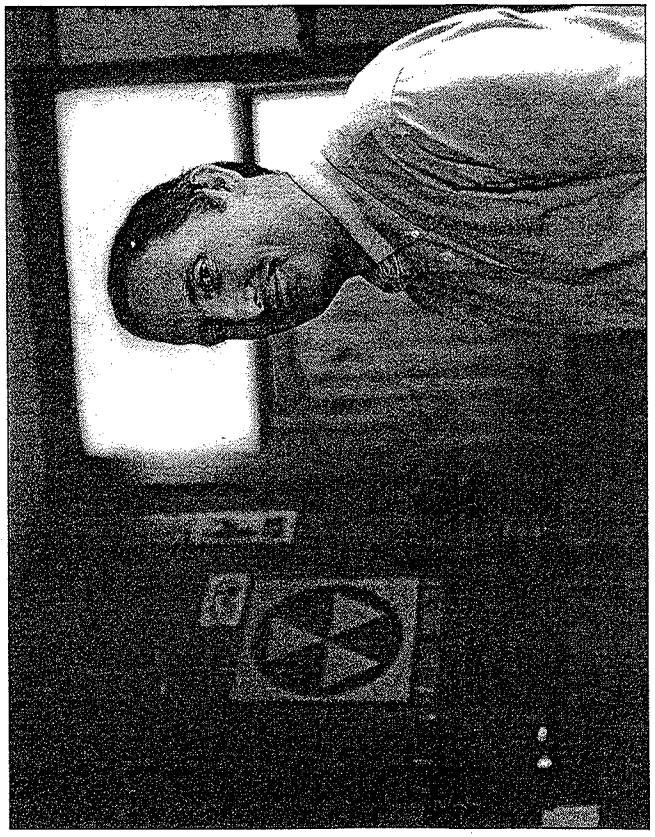
Those of us who witnessed the 6th Army Ranger Battalion freeing those prisoners from Cabanatuan, the Japanese prison camp in the Philippines, saw the worst example of man's inhumanity to man that you could ever imagine all perpetrated by the Japanese.

So, to the Santa Fe Study Group I say continue to criticize and sympathize in any way you choose. Your freedom, so hard-fought for by so many, gives you that right. But be aware there are many of us who realize that your basic goal is to shut down this laboratory and that goal is unattainable.

You see, for some 60 years this laboratory has been made up of hard-working, patriotic Americans whose efforts brought an end to World War II, whose efforts kept us abreast of the Russians all during the Cold War, and whose efforts continue to maintain our position as our first line of defense. That history cannot be tarnished by any group of dissidents.

B.L. Ryan

Los Alamos



THERESE ZUCAL/JOURNAL

IVY LEAGUE OFFER: Greg Mello of the Los Alamos Study Group will head east this fall for a fellowship at Princeton where he will write articles on arms control.

Activist Going to Princeton

from **PAGE 1**

ton.

Via e-mail, von Hippel invited Mello to be a program fellow, Mello said. Von Hippel was in Moscow on Tuesday and could not be reached for comment.

"It wasn't my idea," Mello said.

Mello will collaborate, he said, with Zia Mian, a Pakistani expert on disarmament who sits on the Los Alamos Study Group board of directors, and Robert Nelson, of the Federation of American Scientists. Both are research staff members at the Program on Science and Global Security.

"The hope is that he'll work on three or four papers given his special view of issues at the labs," said Hal A. Feiveson, co-director of the research program. "I can't think of a visitor quite the same as Greg — a scientist with an activist personality."

The program, which strives to be neutral ground, in the past has invited visitors from nuclear weapons labs.

"You shouldn't assume that our agenda is the same as everybody who comes here," Feiveson said.

Mello hopes his writings will reach Congress. The East Coast terrorist attacks of Sept. 11 — and the events that ensued — could serve as a catalyst to reopen the debate on nuclear weapons.

"Congress has not had a chance to focus on this very much yet," he said. "With the present national security hysteria, public debate has become a bit tone deaf."

New Mexico's congressional delegates have been reluctant to break the state addiction to nuclear weapons, Mello noted.

"People are blown away to learn that Los Alamos would like to hire 1,000 people this year," Mello said.

In his view, that's an example of how contractors set policy.

While Mello is in New Jersey from August to December, someone will stand in for him at the Los Alamos Study Group.

"We are looking for a new staff member now who will help carry the office this fall and will be part of the team after that," he said. "Our office will be open, and our program will continue here."

Anti-Nuke Activist To Be Visiting Fellow at Princeton

7/10/02

BY DIANA HEIL
Journal Staff Writer

Greg Mello, head of a Santa Fe-based anti-nuclear weapons group, will spend several months at Princeton University writing articles on arms control.

"Just this fall I'll be a visiting fellow at the Program on Science & Global Security at the Woodrow Wilson School of Public and International Affairs," he said Tuesday. "But just for the fall. Things will continue here and, in fact, things will continue from back there, too."

Mello heads the nonprofit Los Alamos Study Group, a watchdog of Los Alamos National Laboratory since 1992. He holds a bachelor's degree in engineering science and a master's from Harvard University in regional planning and economic development.

"We have a lot of information, as well as perspectives here, that are unpublished," Mello said. "This is very good for the study group. We need to build strong alliances, and I think this will help."

With colleagues at Princeton University, Mello will assemble "technical and rational" arguments for opposing President Bush's agenda of new nuclear weapons.

Mello believes weapons lab contractors, such as the University of California, have "hijacked" policy-making on weapons of mass destruction in the United States and are writing policy for the benefit of themselves, he said.

"It's never talked about in the arms control world," Mello said. "I think it's important to bring a report from the belly of the beast."

The Program on Science and Global Security, a 25-year-old research group at Princeton, studies the technical aspects of policy initiatives in nuclear arms control. The program also trains U.S. and foreign scientists, who want to inform their governments and people about nuclear arms containment, disarmament and nonproliferation policy options.

Mello's group has worked with Princeton for years.

Frank N. von Hippel, co-director of the Princeton program, came to Santa Fe to give talks on nuclear testing in 1992. And Mello, over the years, has been a guest speaker at Prince-

See **ACTIVIST** *on* **PAGE 3**

LANL In Line For New Building

Safety Problems Plague Structure

By Mark Oswald
Of the Journal

Initial steps have been taken toward a major project to replace a huge, half-century-old nuclear-weapons research building at Los Alamos National Laboratory.

Secretary of Energy Spencer Abraham last week authorized the first stages of planning for replacement of the Chemistry and Metallurgy Research (CMR) Building — a two-story, 550,000-square-foot structure that is LANL's largest building and which has been plagued by safety problems in recent years.

According to LANL's Public Affairs Office, Abraham signed a memorandum authorizing the lab to hire an architecture/engineering firm for preliminary design of the new building and to begin preparing a detailed hazards analysis.

He also authorized the Department of Energy to begin work on an environmental impact statement and to schedule public "scoping" meetings. Those will be held in Pojoaque and Los Alamos next month.

Replacement of the CMR Building — which has a core mission of analytical chemistry on plutonium and other weapons material — has been a topic of discussion for several years.

Previous cost estimates for replacing the structure have run into the hundreds of millions of dollars.

John Gordon, head of the National Nuclear Safety Administration, or NNSA, said during a visit to New Mexico last year that the CMR Building has "got to be replaced."

In 1996, there was an explosion in the building. In 1997, operations were shut down for a couple of months after federal inspectors demanded measures to ease safety problems. An earthquake fault was discovered under the CMR Building in 1998.

But nuclear disarmament and LANL watchdog groups are expected to raise questions about the replacement project.

They've argued that a new weapons lab for Los Alamos in the post-Cold War era is just as unnecessary now as in 1990, when Congress killed plans for a $385 million Special Nuclear Material Laboratory at Los Alamos.

"Basically they're looking at positioning the lab to handle more plutonium work and

See **LANL** *on* **PAGE 3**

LANL in Line for New Building

from **PAGE 1**

make more nuclear waste... " said Greg Mello of the Los Alamos Study Group. "It's not clear there's a net safety advantage if the nuclear production capabilities are increased, even if a new building in safer."

"Why can't Los Alamos use the plutonium facility it has?" Mello asked, referring to another existing structure. "Why do they have to build another one?"

LANL's public affairs teams said the lab has worked for more than a year to develop plans and define the mission requirements for a new building that would replace CMR, which opened its doors in 1952.

CMR houses research and experimental activities for analytical chemistry, plutonium and uranium chemistry and metallurgy, among other functions.

According to LANL, preliminary planning for a replacement CMR facility has focused on using a much smaller area for laboratories — about 20 percent as large — plus a separate office building. In early planning, the lab has examined the feasibility of locating the new building at LANL's Technical Area 55 because of the advantages of consolidated security for the replacement CMR and the existing plutonium facility.

LANL has budgeted $16.4 million to complete the conceptual design phase of the project. Spending so far on early planning has been about $3 million.

LANL said no decision to proceed with construction of a CMR replacement will be made prior to a complete environmental review.

The National Nuclear Safety Administration has published notice in the Federal Register of its intention to prepare the environmental impact statement for the project.

The notice says that public comment on the plans will be accepted by DOE through Aug. 31. There will be two public meetings for comments and questions, 4-8 p.m. Aug. 13 at the Cities of Gold Hotel in Pojoaque and 4-8 p.m. Aug. 15 at Fuller Lodge in Los Alamos.

In 1992, the Department of Energy started a series of upgrades to the CMR Building that were intended to extend its useful life as long as 30 more years. But several safety issues surfaced — including the discovery of an earthquake fault beneath the building.

In 1998, DOE downsized the planned improvements to only those needed to insure safety of continued operations through 2010. A Clinton administration budget in 2000 sought $13 million to finish the upgrades, to bring the upgrade costs over about a decade to $128 million.

Santa Fe El Norte

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JULY 27, 2002

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Senate gives N.M. $76 million for weapons cleanup

By JEFF TOLLEFSON
The New Mexican

Environment Department Secretary Pete Maggiore has said the department will make the final cleanup decisions through a process recently proposed in an order issued to Los Alamos National Laboratory.

The U.S. Senate Appropriations Committee this week boosted cleanup funding for the nation's weapons complex by more than $300 million for 2003 while panning the Bush administration's cleanup-reform proposal.

U.S. Sen. Jeff Bingaman, D-N.M., joined environmental and nuclear watchdog groups in praising the committee's decision to fully fund cleanup while bypassing the administration's proposed cleanup-reform account, billed as an incentive to reward states that reach accelerated cleanup agreements. Many critics called the account a slush fund intended to bribe states into lowering clean-up standards.

The president's budget initially proposed cutting this year's $6.7 billion cleanup budget by about $800,000 and moved the same amount of money into a discretionary account to be allocated by the U.S. Department of Energy at sites where states agreed to accelerated cleanup goals. The cleanup-reform account was later increased to $1.1 billion after states such as New Mexico signed letters of intent in exchange for a share of the pot.

"The complete lack of detailed information from the Department to Congress concerning the specific tasks to be performed with the $1,100,000,000 off the taxpayers' money is as shocking as it is arrogant," the Senate Appropriations Committee charged in its report.

Calling it "unfair" and "inequitable" to force states into a bidding war when DOE is ultimately responsible for all the cleanup, the report criticized the administration for promising money that it cannot provide — a stinging reminder that Congress, not the executive branch, is responsible for allocating money.

The committee bypassed the cleanup-reform account and allocated $7.3 billion in cleanup money directly to individual sites, meeting the DOE's promises to states such as New Mexico but apparently elim-

Please see **CLEANUP**, Page B-3

CLEANUP

Continued from Page B-1

inating any strings attached by DOE. New Mexico would receive about $76 million in additional cleanup funding, much of which would go to Los Alamos National Laboratory, according to figures provided by U.S. Sen. Pete Domenici, R-N.M.

Domenici is the ranking minority member on the Democrat-controlled committee.

His spokesman, Chris Gallegos, said the senator is concerned about the committee's decision to bypass the administration's cleanup-reform account.

"The senator is concerned that we would be directly giving money for specific work that has not been part of some agreement that the DOE reaches with each site," Gallegos said.

Meanwhile, the U.S. House of Representatives is moving forward with the administration's proposal, which means the matter is likely to end up in the hands of negotiators from the two houses. Gallegos said Domenici would be on the conference committee that negotiates the final bill and would push to re-establish the cleanup-reform account, siding with the Republican-controlled House on this issue.

Bingaman remains "dead set" against the cleanup-reform account, according to spokeswoman Jude McCartin. "Sen. Bingaman felt very strongly that he ... didn't want New Mexico to compete with others states for the cleanup funding."

Even if the Senate's current bill prevails, "the details of how it shakes down in New Mexico remain to be established," said Greg Mello, who heads the Los Alamos Study Group.

While it's good news that the committee recognized the flaws in the administration's reform proposal, Mello asked whether the letter of intent signed by the DOE and the New Mexico Environment Department will continue to bind the state to the DOE's accelerated cleanup proposal.

Officials with the Environment Department could not be reached Friday.

In the past, however, Secretary Pete Maggiore has denied the informal agreement is in any way binding on his agency.

He said the department will make the final cleanup decisions, with public involvement, through a standard cleanup process recently proposed in a corrective action order issued to Los Alamos National Laboratory.

The $7.3 billion in cleanup funding is just part of the Senate's $26 billion Energy and Water Development Appropriations bill.

The bill also boosts spending on the nuclear-weapons Stockpile Stewardship to $6.1 billion, an increase of $548 million above this year's budget, and increases expenditures at Los Alamos National Laboratory in several areas, according to Domenici's staff.

Publication: Jnl Legacy 1995 to July 2005; Date: Jul 24, 2002; Section: Journal North; Page: 8

Date:-07/24/2002 Edition:-Journal North Page:-1

LANL In Line For New Building

By Mark Oswald Of the Journal

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Secretary of Energy Spencer Abraham last week authorized the first stages of planning for replacement of the Chemistry and Metallurgy Research (CMR) Building a two-story, 550,000-square-foot structure that is LANL's largest building and which has been plagued by safety problems in recent years.

According to LANL's Public Affairs Office, Abraham signed a memorandum authorizing the lab to hire an architecture/engineering firm for preliminary design of the new building and to begin preparing a detailed hazards analysis.

He also authorized the Department of Energy to begin work on an environmental impact statement and to schedule public "scoping" meetings. Those will be held in Pojoaque and Los Alamos next month.

Replacement of the CMR Building which has a core mission of analytical chemistry on plutonium and other weapons material has been a topic of discussion for several years.

Previous cost estimates for replacing the structure have run into the hundreds of millions of dollars.

John Gordon, head of the National Nuclear Safety Administration, or NNSA, said during a visit to New Mexico last year that the CMR Building has "got to be replaced."

In 1996, there was an explosion in the building. In 1997, operations were shut down for a couple of months after federal inspectors demanded measures to ease safety problems. An earthquake fault was discovered under the CMR Building in 1998.

But nuclear disarmament and LANL watchdog groups are expected to raise questions about the replacement project.

They've argued that a new weapons lab for Los Alamos in the post-Cold War era is just as unnecessary now as in 1990, when Congress killed plans for a $385 million Special Nuclear Material Laboratory at Los Alamos.

"Basically they're looking at positioning the lab to handle more plutonium work and make more nuclear waste... " said Greg Mello of the Los Alamos Study Group. "It's not clear there's a net safety advantage if the nuclear production capabilities are increased, even if a new building in safer."

"Why can't Los Alamos use the plutonium facility it has?" Mello asked, referring to another existing structure. "Why do they have to build another one?"

LANL's public affairs teams said the lab has worked for more than a year to develop plans and define the mission requirements for a new building that would replace CMR, which opened its doors in 1952.

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LANL has budgeted $16.4 million to complete the conceptual design phase of the project. Spending so far on early planning has been about $3 million.

LANL said no decision to proceed with construction of a CMR replacement will be made prior to a complete environmental review.

The National Nuclear Safety Administration has published notice in the Federal Register of its intention to prepare the environmental impact statement for the project.

The notice says that public comment on the plans will be accepted by DOE through Aug. 31. There will be two public meetings for comments and questions, 4-8 p.m. Aug. 13 at the Cities of Gold Hotel in Pojoaque and 4-8 p.m. Aug. 15 at Fuller Lodge in Los Alamos.

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In 1998, DOE downsized the planned improvements to only those needed to insure safety of continued operations through 2010. A Clinton administration budget in 2000 sought $13 million to finish the upgrades, to bring the upgrade costs over about a decade to $128 million.

LANL Fighting Cleanup Orders

Assertion of Imminent Danger Challenged

8/1/02

By Angela Turner
Journal Staff Writer

Los Alamos National Laboratory officials have challenged a state Environment Department cleanup order that accuses the weapons lab of being a danger to the public, countering that the department overstepped its regulatory authority.

The lab issued a 145-page response Wednesday to the state's May 2 draft order that determined that waste dumped or stored at Los Alamos since World War II may pose "an imminent and substantial endangerment to human health and the environment."

In a letter to state Environment Department Secretary Peter Maggiore, lab Director John C. Browne said the state's findings "create a false impression."

Evidence in the record "does not support a finding of an imminent substantial endangerment associated with the laboratory," Browne wrote. "To the contrary, a number of credible and independent scientific studies conclude there are no significant risks associated with contamination at the facility."

The assertion of imminent danger from the lab "strains credibility," the lab's formal comments said, adding in italics for emphasis, "*Prior to May 2, NMED (the New Mexico Environment Department) had never orally or in writing suggested*

See **LAB** *on* **PAGE 3**

Lab Challenges State Orders

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the existence of such a condition."

"In fact, NMED has continually reassured the public to the contrary," the lab said, calling the May order "an abrupt and unjustified regulatory about-face."

Jim Holt, associate director for operations at Los Alamos, said lab officials believed that prior to the May order, their environmental monitoring and cleanup strategies had the support of the Environment Department.

The May order "ignores years of conceptual approaches approved by NMED and acted upon in reliance by the laboratory, sweeping them away as if they had never existed or been agreed to by NMED," the lab's formal response said.

Holt said the state's order also "attempts to give the department regulatory authority in areas where no such authority exists and — worst of all — prolongs and delays cleanup of key sites by assigning actions that are overly broad and prescriptive."

In the formal comments filed Wednesday, the labs' operators say the work called for in the state's cleanup order also is duplicative and "so illogically sequenced, that the laboratory staff has estimated that it will cost hundreds of millions of dollars beyond the laboratory's current environmental restoration efforts" with no corresponding benefit.

Cathy Tyson-Foster, a spokeswoman for the Environment Department, said the department will respond to the lab's comments and consider modifications to the order within 30 to 90 days.

The 300-page state order released this spring would force the lab to launch a broad investigation of its property to determine the type and location of contamination there. Based on the investigation, the lab would have to clean up polluted areas to standards set by the Environment Department.

Deadlines for completion of the monitoring were as early as the spring and as late as 2011.

The lab's Wednesday response was filed by the National Nuclear Security Administration and the regents of the University of California, which runs the lab.

The response says that "the energies and resources" of both the lab and the state would be best spent on "the comprehensive environmental restoration program" already under way at the lab.

Greg Mello of the anti-nuclear Los Alamos Study group said his organization supports any cleanup efforts at the lab but feels the Environment Department should have allowed more public involvement in the process.

"It doesn't seem right for the DOE or the public not to have more formal involvement in the process," he said. "Not just that it doesn't seem right, it's not legal."

If the order were treated as a change to LANL's cleanup permit, Mello said, the public and the lab would have had an opportunity to take part in formal hearings, which he said is important since the cleanup would involve millions of taxpayers' dollars.

The DOE and the University of California previously have challenged in federal and state court the Environment Department's findings and questioned the state's jurisdiction over the lab's nuclear materials that are regulated by other agencies, said Linn Tytler, Los Alamos lab spokeswoman.

The lawsuits have been stayed until Sept. 30 so the Environment Department can complete its administration process, including the 60-day comment period, Tytler said.

"If we hadn't gone to court when we did, we would not have any standings afterwards," she said.

Subject: [Bananas] DOD Official -- Testing May Resume
Date: Wed, 14 Aug 2002 14:52:32 -0400
From: Bob Schaeffer <bobschaeffer@earthlink.net>
To: ANA Membership <bananas@drizzle.com>

Excellent reactions from both ANA member groups here:

DEFENSE OFFICIAL: NUKE TESTS AT NTS ARE LIKELY
Las Vegas Sun -- August 14, 2002
by Jace Radke

Underground nuclear testing could begin at the Nevada Test Site in the next decade to ensure the reliability of the nation's aging nuclear arsenal, a Pentagon official said this morning.

Scientists have relied on computer modeling and other analytical tests since 1992, when the last weapon was detonated at the Test Site.

But Dr. Dale Klein, Defense Secretary Donald Rumsfeld's assistant for nuclear, chemical and biological defense programs, said that the nation may need hard data to check the weapons.

"As time goes on there will likely have to be some tests preformed beyond the small scale," Klein said in an interview at Nellis Air Force Base. "There is no direct evidence that says we have to test now, but the stockpile is developing aging characteristics.

"We didn't think they would be in stockpile this long."

Klein, who will visit the Test Site tomorrow, said that while there has been no official move toward testing yet, he believes it will have to be done at some point, perhaps in the next five to 10 years.

"Looking at it from a scientific standpoint you need to have experimental data, to go along with the modeling and analytical study," Klein said. "Of course a return to testing would be a very difficult political issue. The science community looks at it from a standpoint of obtaining knowledge."

It would take two to three years to prepare the Test Site for a nuclear test, but the Bush Administration has asked for better preparedness so testing could be resumed quickly if needed.

Greg Mello, director of the Los Alamos Study Group, an association of scholars working for nuclear disarmament, disagrees with the need for future testing.

"The National Academy of Sciences released a study in July that said that testing is not needed to determine the reliability of the stockpile," Mello said. "This is nothing more than an ideological-driven agenda by the Bush administration to systematically undermine the test ban."

The size of any future nuclear experimentation at the Test Site, an Energy Department facility in the desert 65 miles northwest of Las Vegas, is something that would be determined if testing were to be resumed, Klein said.

"Science would drive the size of the testing," Klein said.

The Test Site, which is larger than Rhode Island, was home to more than 1,000 above and below ground nuclear weapons test between 1951 and 1992. It has a series of underground tunnels which have served as laboratories for many of the tests.

Peggy Maze Johnson, executive director of Citizen's Alert, an environmental group, said that the idea of resuming testing is unbelievable.

"Did we not learn our lesson the first time?" Johnson asked. "We're paying millions of dollars to downwinders in Utah. The destruction these tests cause is just amazing, not only to people, but to the earth."

The fact that the testing would be conducted underground is small comfort to Johnson.

"We have a groundwater study that we conducted at the Test Site that will be released in September, and we believe that the Test Site sits right above the Amargosa River," Johnson said. "Do they think that

whatever they do out there won't seep down into the groundwater?"

Currently the site serves as a training ground for fire, medical and law enforcement personnel to learn how to respond to domestic terrorism. The facility's role could expand further with last month's Senate Bill that grants Nevada $35 million to expand counter-terrorism at the Test Site.

In addition the Energy Department may move an advanced laboratory and its weapons-grade nuclear materials from Los Alamos, N.M. to the Test Site because of growing security concerns. In 1997 a mock terrorist attack by Army Special Forces used a Home Depot shopping cart to take more than 200 pounds of nuclear materials from the Los Alamos facility.

If nuclear testing were to resume at the Test Site scientists could gain valuable information, Klein said.

"Whenever testing occurs we'll be able to gain information that couldn't have been attained 20 years ago, because of how much computers have improved over that time," Klein said.

Klein is responsible for helping to ensure that the country's nuclear arsenal is secure and reliable, as well as making certain that the country's military forces are trained against chemical and biological weapons.

A reassessment of the security of the nation's nuclear weapons was conducted after the terrorist attacks of Sept. 11, Klein said.

Courtesy Los Alamos Study Group

This aerial photograph shows Area G at Los Alamos National Laboratory, where hazardous and radioactive wastes are buried or stored in plastic tents awaiting disposition. Included is radioactive waste destined for the Waste Isolation Pilot Plant near Carlsbad.

Cleanup? What cleanup?

The Department of Energy's environmental cleanup of its two nuclear weapons laboratories in New Mexico has become a sham, and New Mexicans should demand reforms and an honest effort, says today's author, who also accuses state regulators of complicity with DOE

By Greg Mello 8/15/02

Since 1943, the U.S. Department of Energy and its predecessor agencies have designed, built and (once) tested nuclear weapons in New Mexico.

This business, never particularly clean, has left behind a considerable toxic legacy, which still is growing today.

There are more than 2,000 contaminated sites at Los Alamos National Laboratory in northern New Mexico, including 25 or so hazardous and nuclear waste landfills.

There also are old chemical and nuclear waste dumps at Sandia National Laboratories in Albuquerque on Kirtland Air Force Base.

At Los Alamos, groundwater is contaminated in several locations, and low levels of lab-generated and dumped contaminants have begun to show up in a couple of public drinking water wells.

While the contaminant concentrations might remain below standards in public wells for decades to come, this desirable outcome certainly is by no means assured. And not just because of what was done in the past.

Amazingly, the total amount of long-lived nuclear waste being emplaced in the New Mexico biosphere is still increasing, as the lab continues to operate its 1950s-vintage land disposal site, called Area G.

Area G already contains some 63 acres of hazardous and nuclear waste of all kinds. Today, as in decades past, nuclear and PCB wastes are buried in shallow pits and shafts, and covered with as little as 3 feet of earth.

Area G also contains the kind of waste being disposed of at the Waste Isolation Pilot Plant near Carlsbad, but at Los Alamos Lab it's 2,000 feet closer to us, literally stored on the surface.

There has been no formal licensing process for this site, as is required for comparable commercial sites. There is no hazardous waste permit, no closure plan, no commitment to post-closure care and no performance bond.

The New Mexico attorney general said last year that the site has been operating illegally since 1985. Yet, neither Attorney General Patricia Madrid nor the New Mexico Environment Department, which should be regulating the site, wants to force the issue. More than 2,000 individuals, and 27 environmental organizations, have petitioned the Environment Department to close Area G, all to no avail.

Despite all the headlines and new articles about the Los Alamos Lab "cleanup," there are no definite plans to clean up much, if any, of this toxic legacy, at either Sandia or Los Alamos. Most states have negotiated cleanup agreements of some kind with the DOE, but New Mexico has no binding cleanup agreements of any kind as regards either Sandia or Los Alamos.

Money is not the issue. Already, DOE has spent some $701 million at Los Alamos alone on "cleanup," a considerable sum even for DOE. And a few real cleanup projects have indeed been done.

But most of the money, year after year, is spent on studies (the necessary and the unnecessary, the competent and the incompetent). There are enough studies to fill a good-sized room. Much of the money has also disappeared into the lab's infamous "overhead" accounts.

This nuclear waste and environmental contamination is just "hanging out there," as we say, with no clear path to address the long-term risks, no legal "blessing" and no social acceptance. It is a problem for both DOE, as well as for the state Environment Department, not to mention the people of New Mexico.

Even beyond the public health issues, it's a compliance issue — even if the contamination ends up bleeding out slowly enough to avoid exceeding drinking water standards in wells and streams.

And there's no question that it will all leak out. The questions are how soon, how suddenly and how seriously. It's an embarrassment, and it's a potential source of legal problems.

To top it off, the Bush appointees have begun to put the squeeze on the "cleanup" program. This affects not just the two labs but also the state Environment Department, which has for several years been depending on DOE to pay for the outstanding scientists who do surveillance at the DOE facilities.

What can we do?

Up to now, aside from brief moments of glory, the state Environment Department has been rather ineffective in pursuing cleanup at these DOE facilities and particularly so in the case of Los Alamos, where illegal dumping still continues.

DOE and especially Los Alamos Lab push back — and hard. The lab doesn't just generate nuclear waste incidentally, or in small quantities. The lab generates waste massively. DOE expects the lab to bury an additional 19 million cubic feet of nuclear waste at the lab in the next seven decades, more than the lab has buried up to now in its entire history.

Some of this waste, as DOE explains, is far too radioactive to ship on any highway, in any container, and so the dump must remain open.

And, since today's cleanup standard could well influence tomorrow's disposal standard, the thinking appears to be that it's better to have no cleanup at all than risk the future of the weapons program.

How can the state Environment Department resolve the legal and social acceptance issues posed by this situation without antagonizing the labs, while at the same time helping the labs (and itself) fight Bush administration reductions in environmental budget cuts?

In other words, how can the state Environment Department ask the labs to clean up without, well, cleaning up? From DOE's perspective, how can its legal and public perception problems be solved without actually changing behavior or moving much dirt?

And how can a solution be compatible with DOE upper management, which wants to stop the fiscal hemorrhage represented by cleanup, which, nationally, costs as much as the nuclear weapons program itself?

Well, the corporate-types in the Bush administration devised a plan, and state Environment Department Secretary Pete Maggiore has taken the bait. His bright and capable staff have even added a few creative features of their own.

Basically, the answer that meets all these contradictory goals is public deception.

The first move was state Environment Department's. Earlier this year, it found that there might be — "we don't say there IS" — an "imminent and substantial endangerment" of human health and the environment at Los Alamos Lab.

On this basis, which is very true, the state Environment Department issued a "corrective action order." But this order has no actual corrective action in it. What's in a name, anyway? It orders several years of further study, in effect turning back the clock.

As Maggiore explained in his recent press conference, it will help "stabilize" funding. The thrust of all the research, however, which will consume essentially all the funding at the site for years, is not risk reduction but risk assessment. Hey, why rush into anything?

The state department thus created a sponge for cleanup money that will accomplish no cleanup, which Los Alamos Lab can accept.

Then, three weeks later, Maggiore signed an agreement with the DOE called a "letter of intent," which "accelerates completion" of environmental cleanup at DOE facilities in New Mexico — by agreeing there will be very little cleanup done.

In return for signing off on this letter and its supporting documents, the state Environment Department will receive about $700,000 from DOE, just in the first year.

Subsequent payments will no doubt be available upon good behavior. What is happening here is that a few officials in Gov. Gary Johnson's administration are selling an important piece of our environmental inheritance for a mess of porridge.

How can this be happening? Well, for starters,

Please see **CLEANUP?/C2**

TODAY'S BYLINE

Mello is director of the Los Alamos Study Group, a nuclear watchdog organization based in Santa Fe that concentrates on Los Alamos National Laboratory.

TAP IN

To comment on this topic, **write us:** Letters to the editor, The Albuquerque Tribune, P.O. Drawer T, Albuquerque, NM 87103. **Fax us:** 823-3689. **E-mail us:** letters@abqtrib.com.

CLEANUP? *from C1*

the negotiations are secret, which should set off alarms for everybody.

The entire suite of decisions is being made without the public hearings required by law. A few selected outsiders are brought in to provide "cover," the same kind of paternalism used by DOE on the state Environment Department.

But how do the state department and DOE make the risk appear to disappear? Simple: Average it out with words. The state department has agreed to a "watershed aggregate approach," which should "take care" of nearly all apparent problems, by making compliance and cleanup unnecessary at any particular location that might actually be near the contamination.

If this doesn't work, the state department has suggested that "technical infeasibility" might also be employed, a very flexible idea.

And so the sellout goes on, through many complicated stages.

Legally, it may be foolproof. It is certainly beyond the reach of well-intentioned public comment.

Even though the U.S. Senate thinks DOE's new "reform" cleanup strategy stinks to high heaven, the agreements signed in New Mexico have been fully funded so far.

Will our elected officials have the gumption to see through this claptrap and restore the regulatory process to what it should be — a federal commitment and state oversight that ensure a real cleanup, plus funding for it over the long run?

Only if they hear from us, the people who otherwise will be stuck with the contamination. I encourage New Mexicans to stand up and tell their representatives, the DOE and the state Environment Department that we want real, actual cleanup, not words and money for studies.

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Date:-09/21/2002 Edition:-Journal North Page:-1

LANL on Plutonium Plant List

By Mark Oswald Of the Journal

Domenici: Lab Not Right Fit

One of Los Alamos National Laboratory's most enthusiastic and influential boosters Sen. Pete Domenici is downplaying the idea of LANL becoming the home of a huge new facility for manufacturing the plutonium cores of nuclear weapons.

Friday, the Los Alamos lab officially was named a possible site for a plant to manufacture plutonium pits, which trigger the first stage of a nuclear weapon blast.

The U.S. Department of Energy's National Nuclear Security Administration announced it will evaluate five DOE locations for the so-called Modern Pit Facility Los Alamos, the Waste Isolation Pilot Plant near Carlsbad, the Savannah River Site in South Carolina, the Nevada Test Site and the Pantex Plant near Amarillo.

But in a news release this week, Domenici, R-N.M., suggested Los Alamos is not the right spot for the pit plant, which is expected to cost up to $4 billion, be online by 2020 and create jobs for as many as 1,500 people.

Domenici a champion for LANL funding and operations over the years noted the Los Alamos lab already is developing an interim pit production operation, intended to make a small number of pits by 2007. But the senator's news release said "it is unlikely that a large manufacturing operation would be a good match to the research focus at the lab."

"I anticipate that further study will decide against locating this capability at Los Alamos, which could enhance the prospects for Carlsbad," Domenici said.

A LANL spokesman had no comment on the senator's remarks. A lab representative earlier this week declined to say whether LANL is actively lobbying for the permanent pit production plant.

Domenici spokesman Chris Gallegos said Domenici's comments "just reflect the senator's view that he has developed over time that Los Alamos probably wouldn't be the best site for a manufacturing facility, because it's mainly a research facility."

Research "is the primary focus at Los Alamos and where its growth will be over time," Gallegos said.

Nuclear weapons pits have not been produced in this country since the DOE's Rocky Flats Plant in Colorado was shut down in 1989. The need for a new pit production facility was recommended in the Bush administration's Nuclear Posture Review, which argued that the nation's nuclear deterrent capabilities are compromised by a lack of plutonium pit production capability.

Los Alamos' current interim pit production operation is intended to recapture the capability to make the plutonium weapons cores and then transfer what's learned to the new permanent manufacturing facility.

Greg Mello of Santa Fe, head of the anti-nuclear Los Alamos Study Group, said Friday that LANL "hasn't been all that enthusiastic about the larger-scale pit production mission." He said LANL has always cared more about research and the "lavish" funding it brings than the production side of the nation's weapons complex.

Mello also said a large pit production plant could jeopardize LANL's relationship with the University of California, which has the federal contract to run the lab.

"Now, the university's role at the lab can be styled for sale in California as research and development," Mello said. "There is a political risk if UCal, already the best-funded developer of weapons of mass destruction, becomes a large-scale manufacturer of WMDs as well."

He said it's better politically in California and among the UCal faculty for LANL to remain just "a boutique pit manufacturer."

Friday's announcement by the National Nuclear Security Administration said the agency is beginning preparation of an environmental impact statement in preparation for development of the permanent pit plant.

The environmental review is intended to provide information on whether to actually proceed with plans for the new plant and where to locate it.

"The EIS also will evaluate the no-action alternative of maintaining current plutonium pit capabilities at LANL and the reasonableness of upgrading the existing facilities at LANL to increase pit production capability," the NNSA said.

A public "scoping" meeting for the NNSA's environmental review will be held 7-10 p.m. Oct. 24 at the Duane W. Smith Auditorium, 1400 Diamond Dr., in Los Alamos. The NNSA also is accepting written comment for 60 days.

PHOTO: Color

DOMENICI: Anticipates study will decide against Los Alamos

NEW MEXICAN
10-21-02

Lab, DOE to fight N.M. over cleanup

▶ *Lawsuit contests state's order to require cleanup of LANL contaminants*

By JEFF TOLLEFSON
The New Mexican

Los Alamos National Laboratory is asking a federal judge to throw out a state cleanup order and severely limit the state's ability to require cleanup of a host of contaminants at the laboratory.

The University of California, which contracts with DOE to manage the laboratory, filed the lawsuit challenging the New Mexico Environment Department's draft cleanup order along with the state's determination that pollution at the laboratory might represent an "imminent and substantial endangerment" to human health or the environment.

The lawsuit also initiates a four-pronged attack on the state's cleanup authority. If successful, the lawsuit could prevent the state of New Mexico from requiring cleanup of everything from waste dumps — containing both hazardous and nuclear materials — to groundwater, canyon bottoms, explosives sites and such toxins as polychlorinated biphenyls.

"Los Alamos National Laboratory is trying to get out of any kind of governance whatsoever in the state of New Mexico," said Ruth Prokop, an attorney in Washington, D.C., who consults for the Los Alamos Study Group. "Everybody seems to be bowing their heads and ignoring the fact that this is happening."

For Prokop, a former White House attorney who served as general counsel of the U.S. Department of Housing and Urban Development, the lawsuit represents a substantial threat to state oversight. She notes that DOE won a lawsuit using similar arguments regarding state regulation of nuclear materials at a uranium enrichment plant in Padu-

Please see LANL, Page A-4

Continued from Page A-1

cah, Ky.

The issue has been brewing for years.

Citing the 1954 Atomic Energy Act, DOE asserts sole jurisdiction over all nuclear materials from cradle to grave. Alternatively, state officials claim authority under the 1976 Resource Conservation and Recovery Act, or RCRA, for not only hazardous wastes but also "mixed wastes" buried at various nuclear waste dumps where hazardous materials are mixed with plutonium and other radioactive materials every bit as dangerous as those shipped to the Waste Isolation Pilot Project today.

"The DOE feels that they are right, and NMED feels that they are right," said Scott Gibbs, deputy associate director for operations. "And so the appropriate way in our democracy to sort this out is to go to the legal branch."

U.S. District Judge Martha Vasquez will hear the case. No hearing date has been set.

In the suit, the lab challenges the Environment Department's underlying determination that pollution at the lab might represent an "imminent and substantial endangerment" to human health or the environment. Environment Department officials say that determination laid the legal groundwork for the cleanup order.

The lab asks for an injunction halting state intervention on any radioactive waste issues. Moreover, the lawsuit claims the draft cleanup order is in many cases illegal even with regard to hazardous wastes because the state's efforts to regulate the hazardous waste portion of mixed waste would interfere with the lab's management of radioactive materials.

But the lawsuit doesn't stop there. UC argues that the state has no legal authority to require investigations or cleanup of any pollution that originated in liquid-waste discharges — stemming to 1948. Aside from solid rubble that was dumped over hillsides, much of the pollution in the groundwater and canyon bottoms throughout the laboratory stems from liquid discharges.

Because the U.S. Environmental Protection Agency issues permits for such discharges under the Clean Water Act, the lab argues that EPA must be responsible for cleanup of pollution caused by such discharges.

The lawsuit also contends the state cannot regulate munitions-related waste, including contamination from explosives at Technical Area 16 and other sites.

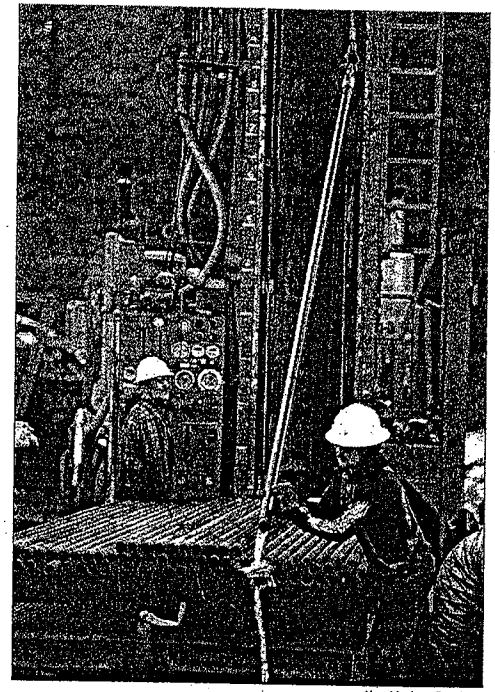
Additionally, PCBs and perhaps other chemicals are the sole responsibility of the EPA and are thus exempt from state regulation, according to the lab's complaint. PCBs cause numerous health problems and are suspected carcinogens. The chemicals were once common in a variety of industrial processes but the United States stopped using them in 1977.

Although the laboratory has answered questions and in some cases followed orders regarding contaminants, the lawsuit asserts that the lab did so voluntarily in the spirit of cooperation. Facing the Environment Department's cleanup order, however, the lab is invoking its legal privileges.

The Environment Department is preparing to release the final cleanup order in coming weeks. Department counsel Paul Ritzma said the state is aware that certain materials might fall outside the state's jurisdiction, most notably radioactive materials. Nonetheless, he said, hazardous-waste laws require regulators to consider "cumulative" impacts, which means the radioactive portion of contamination should not be separated from other toxins.

"I don't know that it does anybody any good to divide those out," Ritzma said, noting that the DOE agreed to treat all waste coming WIPP in Carlsbad as mixed waste rather than argue about the contents of each individual waste drum. "I would think that would be the way the lab would ultimately want to go."

Ironically, in some instances the lab and the Los Alamos Study Group have voiced similar criticisms of the draft cleanup order. Both say the state's "cleanup order" is actually a revision to the lab's general hazardous-waste permit. The process for permit modifications includes hearings, where citizens and the lab alike can object or make official comments. Under the process, which incorporated an unofficial public comment period, no such hearings were held.



New Mexican file photo

Larry Thoren, left, and Daryl Kadmas of Dynatech Drilling help with a groundwater study earlier this year at the Los Alamos National Laboratory.

Both the lab and the study group also argued that the state's order contains too much investigation and not enough cleanup. The lab would need to spend $207 million to comply with the investigation requirements in the cleanup order — before cleanup of the legacy waste sites could begin, according to James Holt, the lab's associate director for operations.

On the other hand, the lab claims that the state's proposed cleanup requirements are overly cumbersome; cleanup standards for water and soil are too stringent and do not allow for a "risk-based" approach. Risk-based remediation allows more contamination to be left in the ground under the assumption that contaminated areas will be used for industrial purposes — as opposed to residential housing, schools or day-care centers.

In place of the state's cleanup order, the lab proposes to replace it with its own cleanup plan. A product of a departmentwide plan to overhaul and expedite cleanup throughout the national nuclear complex, the lab's Performance Management Plan would complete cleanup of legacy waste by 2015, the lab states.

Local nuclear activist groups, however, say even less cleanup would take place under the lab's proposal, which was pushed through with no public involvement.

Although it will be up to a court to decide, regional EPA officials support the state in most of its legal arguments.

While PCBs alone fall under the Toxic Substances Control Act, which EPA enforces, the state can regulate sites where PCBs are mixed with hazardous wastes, said Rich Mayer, EPA's senior environmental project manager for the laboratory.

Although EPA issues discharge permits to the laboratory under the Clean Water Act, the state can regulate the same chemicals if they become pollutants in soil or groundwater, Mayer said. This supports the state's position that it can require cleanup of contaminants in soils and groundwater stemming all the way back to the Manhattan Project that started during World War II.

The issue is a little more complex with regard to munitions testing sites, which the lab has used to test various explosives over the decades. Although EPA policy grants a waiver to federal testing sites that remain active, those sites remain under state regulatory control once they close, according to Mayer.

Even as far as radioactive materials are concerned, Mayer said, the state is not without authority in cleanup under the Resource Conservation and Recovery Act.

"RCRA does have a provision in it called the omnibus provision, which basically says you can do anything to protect human health and the environment," Mayer said. "When we are doing a risk assessment of a cleanup, our policy is that we do have to take into account ... cumulative effects of the radiation constituents and the chemical constituents. And the state has been doing that."

On the other hand, the lab argues that the state's efforts to regulate mixed wastes conflict with requirements under the Atomic Energy Act. Because the latter supersedes the former, any state requirements, including those that target hazardous wastes, are null and void, the lawsuit said.

For some nuclear watchdogs, the lawsuit also should be targeted at lab's hazardous-waste permit, which acts as a general operating permit for all hazardous-waste facilities at the 43-square-mile facility, and ultimately the waste dump at Area G. The Environment Department is preparing to issue a hazardous-waste permit as soon as next month.

In the case of the gaseous diffusion plant at Paducah, state regulators had required DOE to submit a waste characterization plan before placing radioactive materials in a new landfill. DOE successfully argued in federal court that the state of Kentucky did not have the legal authority to place any requirements on the DOE regarding radioactive materials. The Sixth Circuit Court of Appeals upheld the ruling.

Siding with the study group, the New Mexico attorney general believes the lab has been illegally operating its waste dump at Area G, which has never received permits for hazardous wastes. Environment Department officials say the upcoming permit will address Area G and set requirements for closure of the hazardous-waste portion of the site.

Today, the lab says it is no longer dumping hazardous wastes at Area G. In all, Area G contains 39 pits, of which four are active, and 139 vertical shafts, of which 16 are active, according to the lab. Of those, the lab maintains that only one pit and one shaft at Area G contain hazardous materials that could be regulated by the state, but Environment Department officials aren't ready to concede the point.

Everybody agrees that the hazardous-waste portions of Area G need to close, said James Bearzi, chief of the department's Hazardous Waste Bureau. "It's unlined. It's unmonitored. Something like that would never get permitted today. Because of that, they have to close it."

But the records are so poor that it's tough to tell what kind of waste went where, he said. If hazardous wastes were buried in other pits and shafts, then the state will have a hand in how those are handled, too. Moreover, the state could assert authority over an investigation and potential cleanup at Area G if hazardous wastes are found in the vapor plume that has polluted the ground at Area G.

Gibbs, deputy associate director for operations, says the lab is waiting to see what the state does before making a decision to expand the lawsuit to include the hazardous waste permit.

ALBUQUERQUE JOURNAL

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Rifle Found With Suspects Linked to 11 Attacks

PAGE A1

Doctor Wants Nuke Pits at LANL

Need for Plant Questioned

By Adam Rankin
Journal Staff Writer

LOS ALAMOS — Only one person out of 13 submitting comments on the proposed new nuclear weapons facility that could end up at Los Alamos National Laboratory said he wanted the factory to be in Los Alamos.

Miles Nelson, a physician in Santa Fe, said he wanted the proposed modern pit facility, where plutonium cores that serve as triggers for nuclear weapons would be built, to be located in Los Alamos.

"Having it here would help these people understand they are involved in the immorality of nuclear weapons at a very critical level," he said, because scientists at Los Alamos are otherwise "aloof" from the dirty business of nuclear weapons.

Miles and about 45 people turned out for an environmental scoping meeting in Los Alamos sponsored by the National Nuclear Security Administration to evaluate potential sites for the proposed modern pit facility.

Many of the people making comments, including laboratory watchdog groups, called into question the need for a new pit manufacturing facility.

The Department of Energy and NNSA say the facility is needed to replace aging plutonium pits.

Since Colorado's Rocky Flats facility was unexpectedly closed in 1989 because of environmental concerns, the United States has not had the ability to mass produce plutonium pits.

NNSA officials said pits slowly degrade through radioactive decay to the point that they no longer meet narrow nuclear weapons specifications. But exactly how long that takes is unknown.

Jerry Freedman, NNSA director of the pit facility project, said planning a modern pit facility now is part of a prudent risk management strategy to replace old pits as they become nonfunctional.

The question of a new mod-

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Doctor Wants Nuke Pits At LANL

from **PAGE 1**

ern pit facility heated up when Los Alamos National Laboratory was fingered in a Department of Energy technical review as the best site for the pit facility from a list four other possible sites, including Carlsbad's Waste Isolation Pilot Plant.

Other possible locations include the Savanah River site in South Carolina, the Nevada Test Site near Las Vegas and the Pantex Plant near Amarillo, Texas.

Michael Mitchell, NNSA manager for the pit project, said the final location for the facility will be determined by April 2004 and a final decision on whether to build will come in 2011.

The facility, which would begin manufacturing pits by 2018, would cost between $2 billion and $4 billion and $200 million to $300 million to operate each year.

Mitchell said the facility would build a minimum of 125 pits per year but would be capable of producing as many as 400 pits per year and would employ about 1,000 workers.

Freedman said NNSA and DOE are doing aging experiments to determine how long the pits remain viable — current estimates range from 45 to 60 years — but no firm time frame has been established.

If planning the pit facility isn't started now, the government may not be able to ensure the viability of the nation's nuclear stockpile later, especially if pits don't last as long as anticipated, he said.

"What if we find surprises in the next few years?" he said.

Several nuclear watch groups called into question the need for a new pit facility, given recent nuclear disarmament treaties and a program to build pits already in place at Los Alamos.

Jay Coghlan, director of Nuclear Watch of New Mexico, said there is no evidence to suggest aging pits in weapons or in storage will become unusable anytime soon and that the aging argument is a "grand excuse."

"If there was news in the form of yes, there are demonstrable aging affects, then I think we would hear about it," he said.

Coghlan said the motivation for building a new pit facility is not about maintaining the viability of the nation's nuclear stockpile, but about designing new weapons.

He cited the government's 2001 Nuclear Posture Review and other DOE reports, which explicitly state the intent to develop new pit designs.

But Freedman said NNSA has not been directed to create new pit designs, just replace old ones.

Jay Rose, NNSA's environmental manager for the pit project, said part of the environmental review includes looking at an upgrade at a current LANL pit production facility at Technical Area 55, which was designated an interim pit production facility in 1996.

NNSA's Mitchell said TA-55 is slated to produce as many as 20 pits in a year, but so far only research-grade pits have been produced. He said the first weapons-grade pits should be produced by April 2003.

Greg Mello, of the Los Alamos Study Group, said a new facility isn't needed because LANL can produce sufficient pits, given the reduced nuclear stockpile.

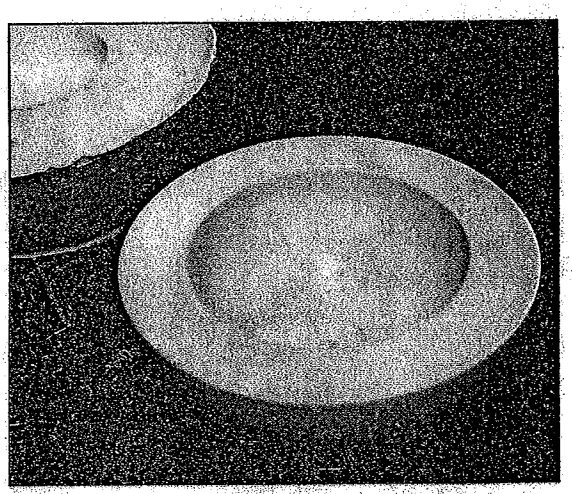
"We believe that LANL has or could have more capacity than they say already," he said.

DEPARTMENT OF ENERGY LA MONITOR 10/26/02

Forum discusses plutonium pit facility and production

◆ *Public scoping session begins process of building a plutonium pit factory at one of five locations, possibly Los Alamos*

By ROGER SNODGRASS
roger@lamonitor.com
Monitor Assistant Editor



JIM O'DONNELL/Monitor

READY FOR PIT A simulated hemisphere seen at the Bradbury Science Museum would hold the pit of a bomb.

Sometime in the future, about 15 years from now, the Department of Energy anticipates the possibility of needing a place to make at least 125 and perhaps as many as 400 plutonium pits per year.

Whether to do that, and more to the point, where to do it, was the subject of a public scoping meeting in Los Alamos Thursday night.

It was evidently not a concern of the people of Los Alamos, however, as only one person out of a dozen or so making public comments identified herself as a Los Alamos resident.

Los Alamos National Laboratory is among the final five candidates selected for consideration in an early screening process that gave Los Alamos the highest rating, not surprising considering that the lab is the only place where some pits are now being made and will be made in small lots of 10 per year by 2007.

But Jay Rose, DOE's official in charge of the NEPA process, said reports in the press about that had been misleading.

"We did a site screening study. We put forth some values and used the study to weed out sites that weren't usable," he said. "Los Alamos did score highest, but now we're starting over."

Ounce for ounce, the plutonium pit, the critical component that ignites a nuclear weapon, may well be the most valuable and most fearsome manufactured product in the world.

One pit, the first one turned out in LANL's stop-gap interim pit production, supposed to crank into action around 2007, will cost almost $2 billion according to one estimate. The next nine pits to be made that year, assuming no additional expenses, would run $174 million a piece.

The Modern Pit Facility, the proposition that was scoped Thursday, would cost at least the $3 billion construction budget for the first pit. With an annual budget of $200 to $300 million a year, future pits could be done at a bargain price per pit of a few million for the minimum annual output.

Pit production in the nuclear complex is also one of the functions held in extremely ill repute, thanks in

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PLUTONIUM

From Page 1

part to the summary shutdown of the last pit factory at Rocky Flats, after years of public protest capped by a raid led by the Federal Bureau of Investigation and the Environmental Protection Administration in 1989.

The closure has been followed by a decade of disclosure about how careless the facility managed its waste and costly efforts to clean up afterward with virtually no end in sight.

Mike Mitchell, DOE's project manager for the MPF, was asked about Rocky Flats, after the basic outlines of the staged 15-year resumption of plutonium pit production were presented.

One of his slides had a bullet that said, "Rocky Flats was unexpectedly shut down in 1989," but Mitchell dropped the word "unexpectedly," in his reading.

Mitchell said, "A lot has changed since it was built in 1952," in an atmosphere that "prioritized production over environmental safety and health." A new facility would benefit from the lessons that have been learned and would be bolstered by more oversight today, he said.

Citizen groups and antinuclear crusaders pelted the concept of an MPF from nearly every angle, scolding the advocates repeatedly on moral ground.

There were however, a number of technical comments.

In prepared remarks, the Los Alamos Study Group invoked Article VI of the Nuclear Nonproliferation Treaty, ratified in 1970, that calls upon signatories "to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and an early date to nuclear disarmament."

The DOE officials indicated that this would be addressed in the Draft Environmental Impact Statement that will be prepared by next spring, but their short answer was that progress was being made in fulfilling the treaty.

Joni Arends, waste project director for Concerned Citizens for Nuclear Safety, followed up on the treaty issue, asking, "Why are you building up at the same time as we are building down?" She asked for a full assessment of plans for water uses in the facility if it were to be built at Los Alamos, and for a redacted (edited for security purposes) version of any other documents underlying the project.

Jay Coghlan, director of Nuclear Watch of New Mexico criticized a publicized LANL experiment in forced aging or spiking plutonium pits, in an effort to determine how long currently stockpiled pits will last, as lacking scientific validity.

He advised the DOE to pursue the No Action alternative, to do nothing about adding pit-making capacity to the current stockpiles. Since the US has pledged with Russia, he said, to reduce the number of warheads down to 2,000, there should not be a need.

A physician, Miles Nelson, said he hoped the plutonium facility would be built in Los Alamos, as a kind of retribution.

"I'd like to see it here, where the culture began," he said.

Other sites under consideration are the Waste Isolation Pilot Project in Carlsbad, the Nevada Test Site, the Pantex plant in Amarillo, Texas, and the Savannah River Site in South Carolina.

The selection of a site is not expected before 2004, with a go-ahead for construction scheduled in 2011 and mission start-up around 2017.

Scientists work to add tiny nukes to arsenal

2002-10-29

A nuclear weapon that can be cradled in the palm of a hand is the newest threat in the nation's war on terrorism.

The tiny nukes, commonly called bunker busters, are this country's response to Iraq, Iran, Libya and other nations that have taken their military targets and chemical factories underground to escape traditional warheads.

Even before Sept. 11, weapons designers created the first bunker buster -- the size of two hands -- and had begun working on modifications that could lead to an even smaller nuclear weapon.

The terrorist attacks last year gave weapons researchers another reason to push for the creation of such mini-nukes, saying their existence would deter the practice of burying assets and military targets. Opponents called the idea "silly" and said creation of the weapons in the United States would cause proliferation worldwide.

President Bush agreed to pursue the building of more nuclear weapons and possible testing, despite efforts by his father and President Clinton to reverse the trend and disarm nuclear warheads.

"Deterrence, the promise of massive retaliation against nations, means nothing against shadowy terrorist networks with no nation or citizens to defend," President Bush told the West Point Class of 2002.

The designers and the Bush Administration face a tough hurdle they must overcome before the weapons are built.

Cooking classes
Diner's Digest
Farmers markets
OKLAHOMA HOME & GARDEN
Bill Geer's Q&A
Melba' Swap Shop
OKLAHOMA RELIGION
Bible Lesson
Religion This Week
Prayer
COLUMNISTS
Loretta Aaron
Sharon Dowell
Peggy Gandy
Bill Geer
Carla Hinton
Sherrel Jones
Charlotte Lankard
Melba Lovelace
Linda Miller
Helen Wallace
Wayne Wyrick

While the weapons will be adaptations of current models, the yield would be below five kilotons. The existing bunker buster, the B61-11 gravity bomb, has an explosive power of more than five kilotons. The exact amount is classified.

A kiloton is an explosive force equivalent to that of 1,000 tons of TNT.

According to an act passed by the U.S. Congress in 1994, no weapons below five kilotons in yield can be researched, designed or built for fear the "suitcase nukes" would be rapidly produced around the world.

Until the act is amended, the nation's defense laboratories must cease all work leading to the creation of the smaller nuclear weapon, including studies.

David Schwoegler with the Lawrence Livermore National Laboratory in California said designers at the national labs are not working on the new nuke, but they are designing new cases for the current model, which opponents said can easily be transferred to the new weapon, when cleared.

"We wouldn't be changing the ornament, just the packaging," Schwoegler said.

"If it provides a new deterrence that would help prohibit burying of military targets and terrorist assets, I think it would be helpful."

Schwoegler said the new weapons could penetrate the ground to greater depths than the current bunker buster, which reaches about 20 feet in a dry lake bed.

Once underground, the bomb will detonate, keeping more radiation and energy in the ground than traditional nuclear weapons. He said it does not have to reach the bunker to destroy it. The idea is to send shock waves through the protective rock to destroy the bunker and its occupants.

Opponents of the small nuclear weapons said the creation of the mini-nukes is a dangerous precedent and is only an avenue to resume nuclear testing. Testing stopped in 1991 during the first Bush Administration.

Rob Nelson, a physicist at the Program of Science and Global Security at Princeton University, called the new bunker buster "a weapon in search of a mission."

He said as recently as a year ago the weapons were being promoted as a way to accomplish the mission without a radiation threat to innocent people.

"That's totally incorrect. ... There is no such thing as a clean nuclear

weapon," Nelson said.

"It would produce enough fallout to give anybody within a few miles a lethal dose of radiation."

He said using the missile near a populated area such as Baghdad, which was suggested during U.S. Senate hearings, would kill as many as 10,000 to 50,000 people.

Nelson said the size of the nuclear weapon tends to make leaders view it as they would a conventional weapon, even though it is capable of much more damage and could initiate a new arms race.

Greg Mello, who works with the Los Alamos Study Group in Santa Fe, N.M., as a weapons lab watchdog, said even if the weapons are produced, there is no guarantee they can perform as promised.

He said many of the underground bunkers are interspersed with innocent bystanders, and other bunkers cannot be found by ground troops, much less a missile.

"Somehow when these missions are put forward, there is a kind of magical property put to these weapons because they are nuclear," Mello said.

"The idea is the bad guys will go out in the middle of the desert and wave a flag. If that were the case, there are much better options at a much lower level of violence."

The groups also are discussing what would happen if the underground bunker contained biological or chemical weapons, as is believed to be the case in Libya.

Schwoegler and other weapons designers said the weapons would vaporize the chemicals and destroy them instead of exposing ground troops to harm.

But Nelson said military personnel might not be able to tell whether chemicals were destroyed, and chemicals would likely seep from the bunker after destruction instead of disappearing.

"What you want to do is send special forces in there to neutralize it," Nelson said.

Military leaders and weapons designers are working to amend the 1994 law to produce the low-yield ground penetrator.

Until then, they are seeking permission to study, build and possibly test a modified version of the B61-11. A congressional conference committee recently approved spending for studies on the adapted

weapon called a Robust Nuclear Earth Penetrator (RNEP).

The laboratories will have to produce a few studies for Congress before advancing but have reached the first step.

"As soon as they get this restriction overturned," Nelson said, "they are ready to go."

Journal North
11.10.02

OTHER VOICES

Why Make More Plutonium Pits?

By Greg Mello

The Department of Energy has proposed building a new factory for the manufacture of plutonium pits, the cores of the first stage of nuclear weapons. Why?

The U.S. has today roughly 24,000 plutonium pits. About 10,600 are in nuclear weapons; there are also some 14,000 pits in storage near Amarillo. Of the pits in storage, approximately 5,000 have been earmarked for reuse; the other 9,000 pits may work just fine as well.

Officials at the nuclear labs say pits last for a minimum of 45 to 60 years, and probably decades longer, if not longer still. Since the oldest pits in the stockpile were made in about 1970, these oldest pits could begin to fail in 2015 at the earliest, using the most conservative information available publicly.

By that time, over two-thirds of the weapons in the U.S. arsenal will no longer be deployed. The recent U.S.-Russian agreement will remove some 6,446 warheads of varying ages from deployed status by the end of 2012, not counting any reductions in tactical weapons that may also take place. The pits in those inactive weapons represent a "hedge" against pit aging in the remaining deployed weapons, which will by then consist of 2,200 strategic weapons and no more than 1,160 tactical weapons.

This is a huge pit reserve, and a quite modern one too — and all the pits in it are fully tested and certified already, unlike the ones that would be made in a new factory.

Even if this somehow weren't enough, Los Alamos could make more than enough pits. For several years now, Los Alamos has been paid princely sums to create, in part of its existing plutonium facility, a manufacturing capacity for 50 pits per year, or 80 pits/year with multiple shifts, a capacity that Los Alamos once said it already had.

The lab space involved is modest, and these manufacturing rates could be doubled within the existing facility by retiring obsolete and unnecessary projects.

Aside from being completely unnecessary, DOE's proposed factory raises other troubling issues. In 1970, the United States ratified the Nuclear Nonproliferation Treaty (NPT), the cornerstone of the world's nonproliferation regime. Article VI obligates nuclear-weapon states "to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament."

There are two important norms here: "do not improve nuclear weapons," and "do not possess them" — whether it is continuous non-possession (by most countries), or eventual non-possession (by the five countries recognized as nuclear-weapon states in the treaty). Our obligation to disarm was emphasized by the International Court of Justice in 1996, which unanimously ruled, "There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control." The U.S. recommitted itself to this principle as recently as May 2000 when, along with the other nuclear-weapons states, it agreed to "an unequivocal undertaking by the nuclear weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States and parties are committed under Article VI." The proposal to build a new pit factory is an affront to these obligations, especially given the huge pit reserve, much of it modern, and the known minimum longevity of pits.

Taking these and other facts in hand, one can only conclude that the primary purpose of this facility is to make types of pits that do not now exist — that is, new weapons. These new weapons would likely have to be tested in full-up nuclear explosive tests, a reality that senior officials at the labs and DOE have recently begun to unveil to the public.

The new facility is supposed to cost $2 billion to $4 billion to build, but there will also be operating costs, plus the costs of waste disposal, security, transportation, and final decommissioning and cleanup, among other costs. It would not be surprising if the total life-cycle cost reached $30 billion or more.

At Rocky Flats, which made pits from 1952 to 1989, cleanup will cost very roughly $10 billion, not including long-term monitoring and care.

Even after spending this much, the widespread soil contamination at the site will probably never be cleaned up. While the proposed new plant likely would not be as contaminating and dangerous as "Rocky" was, this cannot be guaranteed. New (or newly appreciated) hazards such as terrorism and sabotage have risen as risk factors, even as other risks have purportedly declined. The hazard from terrorist attack at such a facility cannot be easily bounded, and the steps necessary to prevent terrorism and sabotage will make such a facility a poor place to work, not even considering the intrinsic medical and moral hazards of working there.

For all these reasons and more, attempts over the last decade to construct a new plutonium pit factory have been highly controversial, both in New Mexico and nationally. They should be. DOE's plan is neither "modern" nor smart, and if allowed to go forward it will gravely damage our national security, in every way that phrase can be interpreted.

Mello is director of the Los Alamos Study Group and visiting fellow with the Program on Science and Global Security at Princeton University.

11-16-02 NEW MEXICAN

Los Alamos cleanup can't wait

GREG MELLO
Commentary

Since 1943, the Department of Energy has designed, built and tested nuclear weapons in New Mexico. This business has left behind a considerable toxic legacy, including more than 1,000 contaminated sites at Los Alamos National Laboratory, of which 25 are hazardous and nuclear waste landfills.

At LANL, groundwater is contaminated in several locations, and low levels of contaminants have shown up in area wells. Despite this, unregulated nuclear waste disposal continues on a narrow mesa just above springs, streams and ancient burial sites with no signs of stopping.

The currently active dump is called "Area G." Waste is buried here in shallow pits and shafts and covered with as little as three feet of earth, just as it was in the 1950s.

Amazingly, this disposal is still entirely unregulated. There has been no licensing process, no hazardous-waste permit, no closure plan, no commitment to post-closure care, no performance bond, no disclosure of waste, and no external regulation of disposal.

The New Mexico Attorney General finally said last year that the site has been operating illegally since 1985. Subsequently, more than 2,000 New Mexico residents and 27 environmental organizations petitioned the New Mexico Environment Department to close Area G. But neither Attorney General Madrid nor NMED, which is charged with regulating the site, has acted.

But isn't LANL being cleaned up, at least? Hardly. DOE has now spent more than $700 million on LANL "cleanup" — meaning a program by that name, not the removal of waste from the environment. Few actual cleanups have been done and, because of the continued disposal, the total waste in the environment just keeps increasing.

Most of the clean-up money has gone to University of California overhead or paid for research.

Unregulated nuclear waste disposal does more than despoil the environment. It also defines a relationship — subjugation — and it creates a future, one where governmental failure allows "rogue" institutions to exploit the state's resources and subvert its regulatory functions, making a "good business climate" for more of the same.

In May, NMED finally determined that there might be an "imminent and substantial endangerment" of human health and the environment at LANL and so issued a "corrective action order."

The problem is that this order required no corrective action. Instead, it ordered several years of further study, primarily risk assessments of various kinds, in substantial part to keep federal dollars flowing to LANL (as Secretary Maggiore explained at the time). The studies requested will accomplish no cleanup — and most of them don't even relate to cleanup.

Then NMED turned right around and signed a "letter of intent" with DOE, a sort of preemptive regulatory surrender, signaling clearly that aggressive cleanup won't be necessary. In return, NMED will receive about $700,000 from DOE.

But even NMED's not-too-subtle surrender did not satisfy UC or the Bush DOE, which want no regulation of Area G and the other hazardous and nuclear waste landfills at all. So UC reached into DOE's deep pockets (yes, they can do that, and yes, those are our pockets) and filed a massive lawsuit against NMED in federal court, which aims to decimate New Mexico's ability to regulate essentially any nuclear waste or environmental contamination in New Mexico — except possibly at WIPP, where separate legislation might provide some protection.

Will Gov. Bill Richardson vigorously defend the state's environment and sovereignty against UC and the Bush crowd? Will NMED take itself off the DOE dole, repudiate the weird "letter of intent" signed by the last administration, and start real environmental cleanup at LANL?

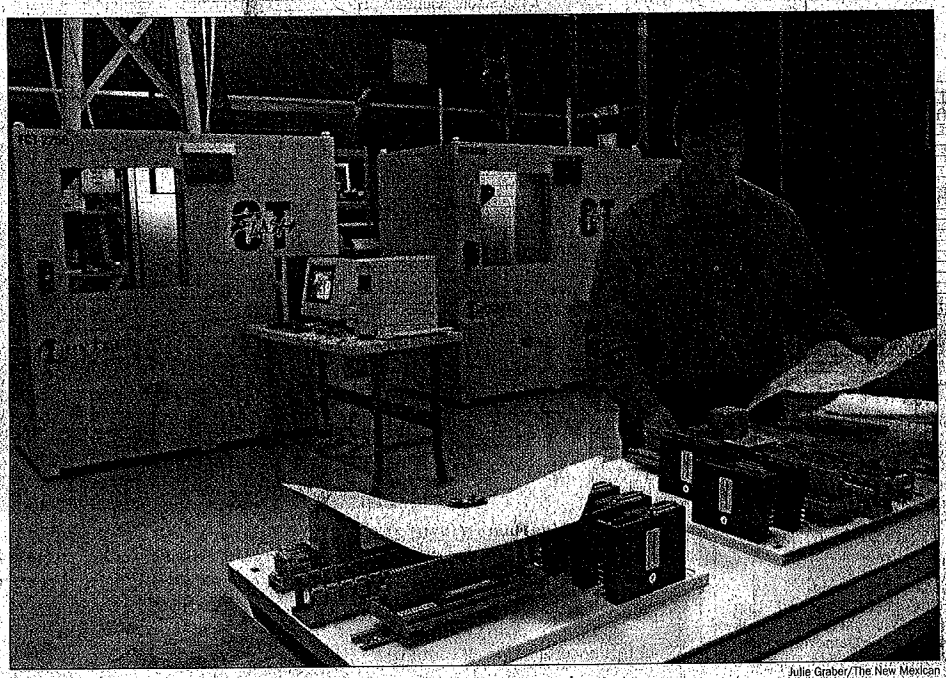
Probably not — unless citizens ask for it.

Greg Mello heads the Los Alamos Study Group and makes the case that it's past time to seriously clean up Los Alamos National Laboratory.

11.17.02 NEW MEXICAN

Trickle-down economics

Almost 60 years after the beginning of the Manhattan Project, LANL's economic footprint on Northern New Mexico is larger than ever. But is the lab doing enough for economic development?



Julie Graber/The New Mexican

Behind Edward Romero, manufacturing manager at HYTEC, a Los Alamos National Laboratory spinoff company, are two models of HYTEC's FLASH CT, an advanced X-ray machine that allows clients to look inside objects. Romero has worked at HYTEC for almost five years.

Story by Jeff Tollefson ❖ The New Mexican

People joke about nuclear bombs being the main growth industry in the state of New Mexico, but in some ways it's true.

Congress has increased annual spending at Los Alamos National Laboratory by $800 million in the last six years. With a budget approaching $2 billion, the world's first nuclear-weapons lab has nearly doubled its expenditures since 1991, the year our Cold War foe, the Soviet Union, dissolved.

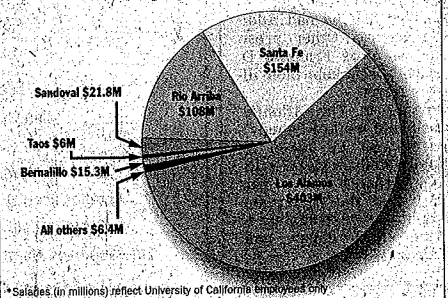
If money is the measure of success, it's a good time for the laboratory. With more than 500 new hires last year — 900 if you include replacements — the University of California's staff at the lab is at an all-time high. And the growth probably won't stop any time soon.

"Given the current president, I would guess that federal defense spending is going to go up," said Larry Waldman, a senior economist with The University of New Mexico. "And I can't help but think the lab is going to continue to be a large influence on the economy of Northern New Mexico."

Growth is good, many say, and what's good for the labs is good for New Mexico. In some cases, that reasoning even spills over the nuclear waste generated by the nuclear-weapons complex. Consider the Waste Isolation Pilot Plant, which was warmly welcomed into Carls-

Please see **LANL**, Page A-7

LANL payroll per county



*Salaries (in millions) reflect University of California employees only
*Payroll as of Dec. 31, 2001

Number of employees (per county) at LANL

Rio Arriba	2352 (22.75%)	Los Alamos	4915 (47.55%)	All others	134 (1.3%)
Taos	145 (1.4%)	Bernalillo	266 (2.6%)	*Employee totals are for UC and major contractors only.	
Santa Fe	2203 (21.3%)	Sandoval	322 (3.1%)		

Source: LANL

Robert Martinez/The New Mexican

LANL

Continued from Page A-1

bad for the jobs it created. Now, the town appears to be courting the Bush administration's proposal for a new facility to manufacture plutonium triggers.

You might say the good times started with the Bush administration's renewed emphasis on nuclear weapons. Then came Sept. 11, which filled a void by giving the nation an official, if elusive, enemy for the first time in more than a decade. Tools developed at both Los Alamos and the Sandia National Laboratories outside Albuquerque attracted national attention during the subsequent anthrax attacks. Los Alamos officials now talk about a renewed sense of mission.

And with the Bush administration beating the war drums for an apparently willing citizenship, politicians in Washington, D.C., seem to have rolled out the red carpet for both defense agencies and the industries that support them.

Working for both Los Alamos and Sandia, New Mexico's congressional delegation tends to bring home the federal bacon, invariably citing the jobs and economic development that will follow. Evidence? Take a look at the young-but-growing technology industry. For that matter, just consider the towns of White Rock and Los Alamos, company towns that didn't exist prior to the Manhattan Project.

Nonetheless, Los Alamos lab seems to attract controversy and criticism, and this case is no different. Skeptics say it's a classic case of the haves and the have-nots. As often as not, the haves move to town, drive up prices and make it harder for the have-nots. And despite the expenditure of about $50 billion (adjusted for inflation) during the last 60 years, notes the Los Alamos Study Group, New Mexico remains at or near the bottom of virtually every list ranking states on a host of social, economic and educational factors.

In 1998, the U.S. Department of Energy published the last of its annual economic-impact reports indicating that Los Alamos lab was responsible for $3.8 billion in economic activity once the federal dollars trickled down to local businesses in Los Alamos, Rio Arriba and Santa Fe counties. That figure represented almost 20 percent of the $12.2 billion total in the three counties, according to the report.

For his part, Waldman is sometimes skeptical about such figures in the DOE reports, but says the lab's effect on Northern New Mexico is undoubtedly enormous. Each job at the laboratory probably creates another job somewhere else, he says.

Such reasoning is a major driver behind the policies of U.S. Sen. Pete Domenici, R-N.M., perhaps the labs' biggest supporter.

"I push very hard, myself, for the federal jobs, to foster private-sector job creation. I'm pleased to say that things are working now better than ever before," Domenici said this week. "Their total impact is something like 28,000 jobs."

Given that most of the federal government's appropriations bills remain in limbo with a lame duck Congress, Domenici wasn't certain how the labs' budgets would turn out this year.

Since 1998, the Los Alamos lab's annual budget has increased by almost $700 million. During the same period, the University of California boosted salaries and added more than 1,200 new positions. The university's workforce now stands at 8,100 employees. As of Dec. 31, 2001, the latest figures available, more than 13,500 people work on the hill if you include contractors, students and post-doctoral researchers.

Total payroll for the laboratory now comes in at more than $880 million, with more than one-third of the lab's employees making more than $100,000. The lab's figures indicate that the average salary for the 3,245 technical staff members is about $103,600. At the bottom, nonprofessional administrative support staff earn an average of almost $40,000. Management makes much more, while professional support members and technicians tend to fall somewhere in the middle.

By far the biggest economic impact on local communities is the payroll. People like 31-year old Paula Crawford, who recently picked up her Ph.D. in materials science and engineering at MIT, take a job at the laboratory, rent an apartment or buy a house and begin spending their money. As it happens, Crawford chose to live in Santa Fe, precisely because, there are more places to spend money here than in Los Alamos.

"I wanted someplace with a little bit more to do. I like to do things on the spur of the moment, like going out to a movie or going to a bookstore," said Crawford, who, as a postdoctoral researcher, is on what tends to be an inside track to full employment at the laboratory.

Crawford is in good company, according to the lab's latest statistics. More than 2,200 employees bring $153 million in annual paychecks to Santa Fe County in Rio Arriba County, about 2,300 employees earn $108 million annually. Of course, neither of those counties compares to Los Alamos, where 5,000 employees make $403 million each year.

These are big numbers, and they do not include more than $410 million in procurement contracts to businesses in Northern New Mexico. Such figures go a long way toward explaining the rampant enthusiasm in some quarters for any kind of new lab activity. Money means business.

On the other hand, the disarmament activists and lab watchdogs believe any talk of economic development spurred by the Los Alamos is a red herring, a distraction to keep people from thinking about what really goes on at the nuclear labs. At least 65 percent of Los Alamos' budget goes directly to nuclear weapons, and that percentage increases quickly if you include nuclear-waste management and related research.

Admittedly, much of the money these days is going to a program designed to maintain weapons without exploding them, which is generally considered "progress." Blowing things up is almost always the easy solution and this case is no exception. Beginning around 1996, DOE embarked on its Stockpile Stewardship program, a massive scientific (and economic) endeavor aimed at predicting the performance of nuclear weapons without full-scale explosions.

An unusual, however, the distrust is palpable. Among nuclear watchdogs, there's a feeling that increasing budgets are largely the result of the energy department's successful effort to protect its turf by making the stewardship of the stockpile much more difficult than it had to be.

Evidence? Consider the impending congressional approval of a DOE proposal to design a new nuclear "bunker buster" bomb at Los Alamos and its sister laboratory, Lawrence Livermore in California. At a time when the rest of the world is pushing for disarmament, DOE is still trying to design new bombs. Top that off with the Bush administration's policy that such nuclear weapons can be used in a pre-emptive strike — against nations that have not attacked the United States — and you see the disarmament crowd's displeasure.

Jay Coghlan of Nuclear Watch of New Mexico points out that the nuclear-weapons programs at Sandia and Los Alamos add up to almost 75 percent of the state of New Mexico's entire annual operating budget for schools and services. Unfortunately, he added, the trickle-down effect is overrated: Recent census figures peg Los Alamos County as the fifth-richest county in the United States with a median household income of almost $79,000, which compares to a median income $29,400 next door in Rio Arriba County.

For Greg Mello, who heads up the Los Alamos Study Group, economic development created by the labs tends to distract New Mexico's congressional delegates, who focus their efforts in Washington on supporting the labs while forgetting about rural economic-development programs that might do more for Northern New Mexico as a whole. The state ranks high in terms of total federal appropriations per capita, but low on most other social and economic scales.

"The juxtaposition of having such a high level of federal payments and such a low level of economic performance suggests that the way we get our federal dollars isn't creating economic development," Mello says. "You just don't get that many spin-offs from plutonium."

Others maintain activists like Mello are simply jaded by their own feelings against nuclear weapons. Like it or not, they say, weapons of mass destruction might be the best thing that ever happened to New Mexico's economy.

As president of the Albuquerque-based Technology Ventures Corp., Sherman McCorkle tracks New Mexico's technology industry. For the past six years, the company has compiled the "Flying 40" list, comprised of the state's fastest-growing technology companies.

In 1996, companies on the list had 2,155 employees and revenues of $258 million. By 2001, the companies had increased their revenue by 340 percent to $879 million; employment grew 240 percent to 5,179 people. McCorkle noted that these figures would be much larger if his company included hundreds of smaller companies that don't make the list. Virtually all of this development, he said, has its roots in the weapons labs.

"I personally think we can probably attribute somewhere between 97 percent and 100 percent to the labs," McCorkle said. "The reality is, you don't see this in Montana or Wyoming. If it weren't for the national labs, we would be like the rest of the Rocky Mountain States: primarily agricultural."

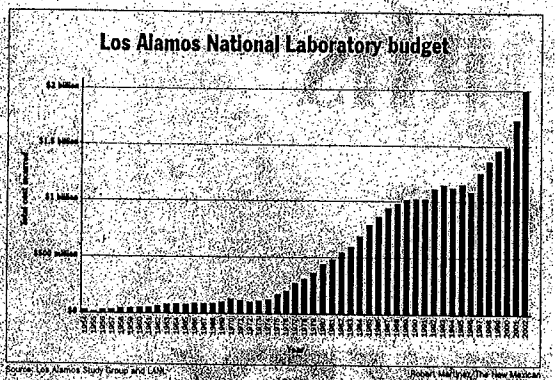
UNM economist Waldman might not go that far, but he agrees that local activists' opinions are probably tainted by their hatred of all things nuclear.

When you look at census figures, Rio Arriba County's median income grew by 23.4 percent from 1990 to 2000; only five counties in the state had a sharper increase in income.

"If the local economy in Rio Arriba is in such bad shape, that's not the fault of the lab," Waldman says. "If anything, without the lab it would have been worse."

For J.R. Trujillo, chairman of the Northern New Mexico Suppliers Alliance and an Española city councilor, the lab has shown its willingness to work with small, local companies. Now, he says, it's up to the business community to step up to the plate and build an economy around the laboratory's needs.

"This isn't going to be something that is going to happen overnight," Trujillo said. "You can't just say, 'OK, Los Alamos. Fix our problems.' "



Source: Los Alamos Study Group and LANL

Robert Nott/The New Mexican

NUCLEAR showdown

Can the New Mexico Environment Department stand up to Los Alamos National Laboratory? From many accounts, that question is headed for a showdown.

The New Mexico Environment Department fired the first volley in the battle last May when it released the initial draft of a 250-page document, known as a corrective action order, for the lab.

In excruciating detail, the order describes the contaminants LANL has released into its mesas and canyon bottoms, from americium to zinc. It orders a top-to-bottom investigation of polluted sites with deadlines and strict reporting requirements. The final version was released last week.

In response, the University of California, the private contractor that runs the lab, hired two private law firms and shot back on June 3 with a lawsuit challenging the state's finding that the lab's practices may be causing "imminent and substantial endangerment to health or the environment."

Yet while it appears the state is cracking down on the lab, some nuclear watchdogs believe the state's actions won't change the status quo when it comes to actual cleanup.

>>>

NUCLEAR showdown

continued from page 13

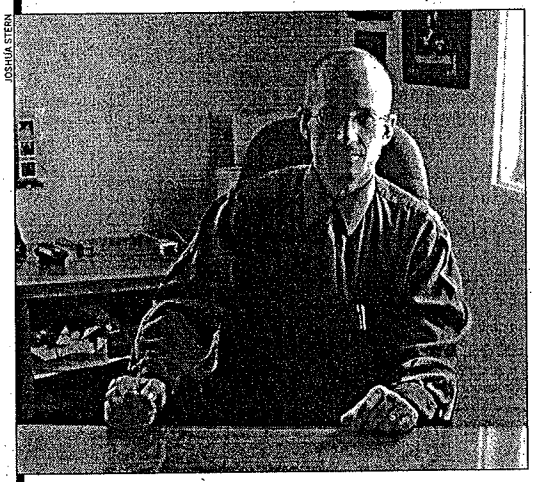
The legal outcome, on the other hand, could shift the balance of power between a historically weak state and a nuclear weapons lab accustomed to having its own way. Nuclear watchdog groups contend that the University of California, by virtue of Cold War-era laws and its political clout, has become the last polluter in the state to get away with little oversight. "No private industry and no other agency of government can operate this way," says Arjun Makhajani, director of the Institute of Energy and Environmental Research in Takoma Park, Md. "Not even the Department of Defense has this kind of fiat."

LANL officials dispute the claim that the lab is without oversight, calling itself "heavily regulated by the state."

Most believe that the outcome will be largely determined by how aggressive the state of New Mexico is willing to be. Says Geoff Fettus, a lawyer formerly of the New Mexico Attorney General's Office and now with the Washington, DC-based Natural Resources Defense Council, "The next few years will be the test."

The end result of this David and Goliath scenario could also have profound ramifications for states like Tennessee and Washington, which also house Department of Energy facilities. But perhaps the most important thing at stake is how well New Mexico will be able to protect its ground and surface water in the future.

The Department of Energy filed a lawsuit of its own against The New Mexico Environment Department; but as of press time, it had not served the lawsuit on the state.



JOSHUA STERN

Hazardous Waste Bureau Chief James Bearzi acknowledges that the state hasn't always held the lab's feet to the fire.

The various contentions about LANL's impact on the environment are so well-hidden within hundreds of pages of eye-glazing legal and technical documents that many people may miss the fight altogether. The public has at its disposal many hundreds of pounds of paper from Los Alamos and the Department of Energy describing "accelerated cleanup strategies," "performance management plans" and "benchmarks."

Often these unwieldy documents start off with a two-page list of defined acronyms. One can wade through them and still come away without a clear idea of how environmentally screwed up LANL is (or isn't). A normal person could be forgiven for giving up on the issue entirely.

A disturbing story occasionally makes its way down the hill: The Santa Fe New Mexican reports that trees in Bayo Canyon are radioactive. The Los Alamos Study group goes on to lab property with a Geiger counter and comes back with reports of radioactive ants and plants.

There is also one unofficial document that can't be called boring: an anonymously made videotape—allegedly created by a former LANL employee and now distributed among lab dissidents—which gives an unedited view of a workday at Area G, the lab's "low-level" radioactive waste dump. (Watchdog groups contend "low-level" is a misnomer, because of evidence that fuel rods and other highly radioactive materials are buried there.) Bordered by lands considered sacred by San Ildefonso Pueblo, the "hot dump" is a pre-modern, unlined, 63-acre area of scraped volcanic tuff. Here, radioactive and hazardous waste has been poured directly into the ground, buried in barrels under sheets of plywood and stored in drums under tents for shipment to WIPP.

The state's Hazardous Waste Bureau Chief James Bearzi points out that, by contrast, New Mexico's municipal landfills, which contain plain old garbage, are engineered and double-lined. Anti-nuke groups allege Area G is unpermitted and therefore illegal. LANL says the dump is legal. A DOE official said, "It depends on who you ask."

The video, thought to be about 10 years old, is so ham-handed that were the content not so alarming, it might appear on a bottom-of-the-barrel reality TV show called *America's Funniest Nuclear Waste Dump Videos*. The show starts with bulldozer running back and forth over tan volcanic tuff. A narrator explains that this is being done in order to dig up buried waste drums. The laborers wear street clothes or coveralls.

Then—whoops—because apparently no one knows exactly how deep the barrels are buried, the bulldozer breaks through the plywood. Next, lab officials wearing white haz-mat suits and respirators run out to the site to check for radioactivity, while laborers dressed in blue jeans and holding shovels wait nearby. A blasting wind blows dusts, and everyone covers their faces with their hands.

LANL spokesman James Rickman says he has no knowledge of the video's existence. "That's a new one on me," he says. "I've never heard of anything like that."

"We hope this is a period piece," comments Ken Silver, an expert on occupational health issues who works on worker safety at Los Alamos. "We hope this is not reflective of current conditions at the lab."

As it happens, LANL is proud of its cleanup program, and argues that it has been a wise steward of the roughly $700 million it has spent during the last 12 years. Much of what

the lab has done so far is to characterize—that is, find out what kind of contaminants are in—more than 2,000 sites that could potentially pollute the environment. These range from liquid radioactive waste to "literally a place where somebody said they remembered that hamburger grease was dumped," says lab spokesman Rickman. In addition, the lab has sunk numerous wells into its property to monitor groundwater.

Rickman is aggrieved that the lab isn't credited for what it has accomplished. And it's true, lab critics have almost nothing good to say about LANL's cleanup program. Instead, they argue it has picked off the "low-hanging fruit"—crossing off sites that were never really contaminated in the first place and leaving the more difficult and potentially dangerous sites untouched. The lab, they say, has turned environmental engineering problems into endless academic research projects. They further contend that, left to its own devices, LANL would replace strict cleanup standards with weak ones. Land cleaned up for industrial use, for example, can be left dirtier than land slated for future residential use. Risk management, a strategy that gained favor under the Reagan administration, can be employed for endless studies of unprovable risks while real hazards go ignored.

Critics of DOE environmental management aren't just anti-nukers who oppose the lab on principle. A 1997 DOE Inspector General's report found that of the $360 million spent by LANL by 1995, only 20 percent or so had gone to cleanup. On Nov. 24, The New York Times reported on an internal DOE document that blasted its own environmental management program. According to The Times, the internal report concluded that the environmental management program "has been fundamentally mismanaged since its founding 13 years ago, and much of the $60 billion it has spent over that time was wasted."

All of which helps to explain why most citizens groups are anxious for state oversight, because in the minds of some nuclear watchdogs, this recent order by the New Mexico Environment Department comes after years of inaction, or at best, inconsistent action. To one legal observer the state is like "a slumbering giant that is finally waking up."

"We've been remiss," acknowledges Bearzi. "We haven't held the lab's feet to the fire. This [order] is the first step to doing a better job." The environment department contends it can require this "corrective action" under the state's Hazardous Waste Act, because the lab and the DOE's "past and current handling, storage, treatment and disposal of solid waste and hazardous waste at the LANL facility may present an imminent and substantial endangerment to human health or to the environment."

In its lawsuit, filed in federal district court in Santa Fe, the lab argues the state's endangerment finding was an "unlawful attempt to exercise regulatory jurisdiction over LANL."

But LANL and DOE staff put a friendlier spin on it.

Mat Johansen, an environmental manager in DOE's Los Alamos office, says, "We're doing what people do in a civilized society; we're going to court to see what a third party says. We accept and are not challenging NMED as the regulator and look forward to working with NMED on environmental issues in the future."

Johansen points out that while DOE and the lab are suing the state, the state, by issuing the cleanup order, was the one that picked the fight.

LANL spokeswoman Linn Tytler agrees with the portrayal of the lab as the picked-on party: "The lab saw its only recourse to be the court. We were forced to do this to protect ourselves."

In a soothingly worded op-ed in the Journal North, titled "Laboratory and Public Share Similar Values," LANL associate director Jim Holt writes, "Every member of the Laboratory work force is a resident of the region and works diligently to ensure that nothing done at the Laboratory could harm a friend, family member or neighbor."

But lab critics see the lawsuit as a radical attempt to undermine authority, out of sync even with DOE relations with other states.

"The lab and DOE are attacking the fundamental capacity of the environment department to regulate Los Alamos," says Jay Coghlan, director of Nuclear Watch of New Mexico.

In fact, the legal battle pits one federal law against another: the Atomic Energy Act of 1954 and the Resource Conservation and Recovery Act of 1976.

Each law reflects its era. The Atomic Energy Act, which LANL cites in its lawsuit, was signed into law in 1954, at the height of the Cold War. 1954 was the year of a hydrogen bomb test in the Bikini Atoll and the year when Robert Oppenheimer was defending himself before the Atomic Energy Commission against charges of communism. Along with calling for an "Atoms for Peace" program, the Atomic Energy Act says that radionuclides are subject only to federal control.

RCRA is a '70s law which grew out of the environmental movement, and gained force after the revelation of the Buffalo, NY, toxic disaster called Love Canal. State laws, such as New Mexico's Hazardous Waste Act, follow the federal standards set up under RCRA and gain their authority from it. After years of resistance to RCRA from DOE, Congress amended the law in 1992 to make it explicit that DOE facilities must comply with it.

RCRA is about the size of a New York telephone directory. How it interacts with the Atomic Energy Act is open to interpretation.

One major dispute is who has authority over waste that is both radioactive and hazardous. In its lawsuit, LANL contends that DOE alone has

Jay Coghlan, director of Nuclear Watch New Mexico, hopes the state's order will lead to cleanup.

According to the General Accounting Office, from 1995 through 2001, DOE contractors passed $291,950,052 in legal fees onto taxpayers. In the great majority of those cases, the contractor was defending itself in a lawsuit. Federal regulations provide for the reimbursement to contractors of "reasonable legal costs."

NUCLEAR showdown

continued from page 15

authority to regulate "the radioactive portion of any waste mixtures."

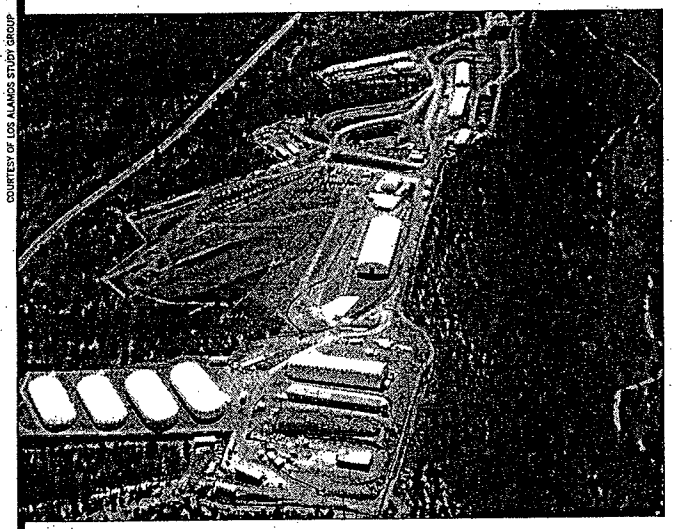
This dual regulatory scheme makes it sound as if radioactive and hazardous waste could be separated, like plastic containers and glass bottles for recycling bins. That's not possible, of course, and that's where the disputes come in.

The state's order doesn't challenge the federal control of radioactive waste. But Bearzi says that under RCRA the state can demand testing, monitoring and reporting of radionuclides.

"The lab wants to argue that the state can't touch anything that's radioactive," Bearzi says, "but we disagree."

Several anti-nuclear and environmental groups dismiss the lawsuit as legally unfounded and say it is being used by LANL as a bullying tactic.

But at least one legal observer believes the legal issues shouldn't be so easily dismissed. "DOE is trying to chip away at RCRA. I hope DOE loses and I hope they lose big," says Ruth Prokop, a consultant for the Los Alamos Study Group. "But this is a real legal question and it's a close one. It's a serious, sophisticated lawsuit."



COURTESY OF LOS ALAMOS STUDY GROUP

Area G contains 10.7 million cubic feet of waste, a volume equal to about 1.4 million 55-gallon drums.

Prokop was the top lawyer at the US Department of Housing and Urban Development during the late 1970s. She became intimately familiar with federal environmental laws after it was discovered that contamination from the former nuclear power plant, Rocky Flats, had leaked onto HUD-insured properties in Colorado.

As evidence of the seriousness of lab and DOE's lawsuits, Prokop points to last year's ruling in a case involving the Paducah, Ky., DOE uranium enrichment plant. In that case, the state of Kentucky tried to put conditions on DOE's disposal of radioactive materials in a state-permitted landfill.

DOE challenged the state's authority and both the district court and the sixth circuit court of appeals agreed. "It puts the state in an unusual circumstance," says lawyer Randall McDowell, who argued the case for Kentucky. "We're charged with protecting human health and the environment and yet when it comes to radioactivity we're preempted."

The Paducah decision may bode ill for New Mexico's ability to enforce its order, says Prokop. "This is not some wild card the lab's throwing out there. If it was, there wouldn't have been a Paducah case."

Not everyone is convinced that the state's recent actions are on the right course. In the mid-1980s, before he started the Los Alamos Study Group, Greg Mello worked at the groundwater bureau for what was then called the Environmental Improvement Division. As a technical investigator dealing with violations of hazardous waste laws, he says he quickly learned that private industry and the lab were two separate universes. Private companies, he says, were worried about liability of violations and anxious to fix their problems.

"But the lab thought everything could and should be fixed politically," Mello says.

At one point, Mello succeeded in getting a notice of violation for the lab signed by the head of his division. To do so, he says, he had to do an end run around several more immediate supervisors who didn't want to be involved. Several of those same people later went on to jobs at LANL or DOE.

"We called it the ascension, because you could make so much more money there," Mello says. Soon after the notice was signed, an angry legislator called the office and threatened to cut the division's budget if the states didn't back down.

Among the anti-nuke warriors, Mello stands nearly alone in his contempt of the state's corrective action order. He believes LANL's demands for new studies of contamination will give the lab license to do nothing. Mello also points out that emphasis on cleanup of historical dump sites ignores the fact that lab operations continue to produce waste. According to Mello's analysis of DOE documents, current plans call for the lab to produce 33 drums of waste per working day for the next 68 years.

Instead of more studies, Mello says, the state should require the lab to remove contaminated sediments from canyons, stop the pumping of liquid radioactive waste into Mortandad Canyon, pump out contaminated groundwater and go after localized dumps with shovels and backhoes.

"If they're not going to do anything, then we should stop now," Mello says. "I'm not in favor of funding LANL to do nothing."

Nuclear Watch's Coghlan agrees that

the state's order is "a glorified information request. Which doesn't require cleanup." But he says he is optimistic that "though the order doesn't call for cleanup, it will lead to cleanup."

Hazardous Waste Bureau chief Bearzi says, "The level of investigation is entirely appropriate given the state of knowledge. The information we have simply isn't good enough."

Ironically, the lab is using a similar argument to explain why it's contesting the state's order—that there is too much emphasis on new studies and not enough on actual cleanup.

Given the lab's track record on cleanup, says Coghlan, "they should be slapped for saying that."

Both Mello and Coghlan are leery of a letter the environment department signed with LANL just a month after the state released its draft order. The "letter of intent" with Los Alamos agrees to an "accelerated cleanup plan," devised by the lab and approved by DOE. The latter sought to control how contaminated sites are funded for cleanup by asking Congress for $1.1 billion for an "Accelerated Cleanup Account," which would be given only to states that signed on to the letter. Congressional critics, including New Mexico senators Jeff Bingaman and Pete Domenici, called the account a "slush fund." But last month Congress voted to authorize nearly the entire request. Congress has yet to appropriate the money.

Many watchdog groups are critical of this agreement, and contend New Mexico and other states were pressured into signing the letters by DOE. Bearzi says the letter is "only a letter. It doesn't mean we signed off on their cleanup plan. We haven't approved it and we don't intend to approve it. But if it's going to help bring in more money, then the money will indeed go to cleanup."

"The state has been bought off," Mello counters. "They're spending their resources on these Kumbaya meetings with the lab instead of on enforcement."

The state's ability to take a hard stand with LANL is on everybody's mind. In her 25 years as a lawyer, Prokop says she hasn't encountered regulators so apparently loathe to use their power as those here in New Mexico.

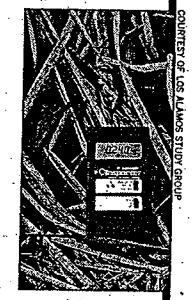
"It's just not a regulatory atmosphere. It's more, 'we're going to try and get them to comply,'" says Prokop. "Don't get me wrong, their intentions are very good. They just don't have the mentality of a strong regulator."

That might have changed now. But how strong a stance the state will take may also depend on whether, as governor, Bill Richardson decides to play hardball against the DOE, the agency he used to head. Richardson could not be reached for comment prior to press time.

If the state's order represents a new era of empowerment, Prokop worries that it may be coming too late. For a Republican administration bent on fighting terrorism, considering new nuclear testing and figuring out how to spy on domestic terrorists, Cold War-era thinking may be more relevant than the '70s promise of environmental protection.

"With this administration, the DOE sees their chance to get out from under RCRA," Prokop says. "They're going to take this and run with it." Whether New Mexico is up to the challenge, she says, "remains to be seen." ❑

The units of radioactivity displayed in this photo of cattails in LANL wetlands are milliroentgens/hour (mR/hr) on a Geiger counter. Los Alamos Study Group took this photo in the spring of 1999 in cooperation with the Natural Resources Defense Council.



COURTESY OF LOS ALAMOS STUDY GROUP

LANL announced on Nov. 18 that it had successfully cleaned up contaminated soil discovered during a utilities trenching operation in August. The cleanup was part of almost two months of work at TA 48. Crews removed nearly 150 cubic yards of soil contaminated with volatile organic compounds. According to LANL, the contaminant levels did not pose an immediate risk to the public or the environment.

Santa Fe New Mexican

Hard Times

By: Barbara Ferry

December 15, 2002

Santa Fe New Mexican

Retirement plans, a benefit he'd hoped to provide for his small staff, are out of the question. A vacant position will go unfilled. And Harris, director of Rio Grande Restoration, expects he'll spend less time out in the field working on river projects and more time in the office trying to raise money.

"It's a matter of how long you can hold your breath," he said.

Down in Silver City, a small group that works to ensure compliance with the state's mining reclamation law is also hunkering down, with staff members choosing to cut back on their hours. "We're too small to buy pink slips," joked Harry Browne, director of Gila Resources Information Project, noting that for at least some New Mexican activists, cobbling together an income from various sources is a long tradition. "We don't lay off staff, we just get other jobs," Browne said.

Here in Santa Fe, a food bank postponed for a year a new program to give backpacks full of food to hungry kids in Santa Fe public schools. "We were concerned that we wouldn't have the funding," said Sherry Hooper, director of the Food Depot. She said she hopes to launch the program in January.

And in Albuquerque, an organization that works to reduce teen-pregnancy rates is stepping up its direct-mail solicitations to replace a $75,000 grant that won't be renewed this year. Without that money, the group will be scrambling to keep running its parenting groups for teenaged fathers. "We haven't felt the impact yet, but we're bracing for it," said Sylvia Ruiz, director of the New Mexico Teenage Pregnancy Coalition.

Up and down New Mexico, and across the country, nonprofit organizations that rely on foundation money for support are facing tough times. Nationally, foundations gave $26 billion to charities in 2001. But many foundations have taken huge hits in the stock market during the past three years. Nine of the top 10 foundations lost money in first six months of 2002 with losses totaling $8.3 billion, according to The Chronicle of Philanthropy. As their endowments have slid, in some cases precipitously, so has the

amount they are able to give out.

Not all the news is so dire. Some New Mexico foundations seem to be faring better with their investments than larger, less diversified foundations on the East and West coasts. And the privatization of Blue Cross/Blue Shield here has resulted in the creation of a new $17 million foundation focused on health-care needs in rural New Mexico. But the overall trend is downward and some predict the situation will get worse before it gets better.

"It's causing us to make tough decisions," said Owen Lopez, director of the McCune Charitable Trust, a top funder of projects in Northern New Mexico. "And for the (nonprofit) groups, it's causing a lot of heartburn."

"I don't think it's going to turn around soon," he added. "I hope it doesn't get worse."

Because many groups rely heavily on foundation support, nonprofits working on issues ranging from after-school programs to homelessness can be as dependent on the stock market as pinstripe-suited Wall Street traders. Some groups expanded rapidly during the 1990s when foundation money was easier to come by.

1000 Friends of New Mexico, a statewide organization that works to combat urban sprawl, grew "like wildfire" in the 1990s when smart growth was considered "a sexy issue for foundations," said program director Ed Archuleta. The group's budget leapt from $100,000 to $650,000 in just a few years, he said. But during the upcoming year, the organization will have to make up about a quarter of its budget because of the loss of grants from major foundations.

"We've relied too much on just a handful of foundations," Archuleta admitted. "It hasn't been a problem until now because the money was flowing. But now we really have to work on diversifying our funding base."

Resources are falling at the exact time when demands on nonprofits are increasing, said Chris DeCarty, of the Palo Alto, Calif.-based Packard Foundation, which dropped its giving from $400 million in 2001 to $250 million in 2002. The foundation, which supports environmental groups such as 1000 Friends of New Mexico, plans to give away $200 million in 2003.

"I would say that, to a one, organizations are facing increased demand or needs for their services," DeCarty said. The poor economy means greater strains on families, which mean greater demands for the social services nonprofits provide.

And the conservation-minded environmental groups funded by liberal foundations such as Packard are under greater pressure because the Bush administration is bent on relaxing the environmental regulations the groups have fought for, DeCarty said. "For the environmental groups it's like a double whammy."

One dramatic example that has impacted New Mexico is the falling fortunes of media mogul Ted Turner. During flush times, Turner became famous for his $1 billion gift to the United Nations and challenge to other CEOs to dig deeper into their pockets. In the United States, the family-run Turner Foundation focused much of its funding on environmental groups in states where Turner owns land or businesses, including New Mexico, where he owns several ranches.

But Turner's holdings in AOL/TimeWarner have fallen from nearly $7.5 billion in February 2001 to $1.5 billion in September, according to the Atlanta Journal-Constitution. As a result, the foundation is not accepting any new grant applications in 2003 and expects to fund groups on an "invitation only" basis in 2004. "There isn't a whole lot more we can do right now," said program officer Devon Finley.

Closer to home, the Santa Fe Community Foundation, which gave out $1.1 million in 2001, expects to find that it distributed almost that much in 2002, when it closes its books in mid-January, according to foundation President Billie Blair. Diversified investments, along with a strong individual donor base, have helped the foundation keep up its funding levels, Blair said. And when the foundation's board saw the stock market slide in 2001, it took action, creating a Community Care Fund to help tide nonprofits through lean times.

While individual donors are facing the same sort of investment losses as foundations, Blair said she's seen donors' generosity persist. "I had one donor tell me 'I want the foundation to have this because I might lose it in the stock market anyway,' " Blair said.

But the overall amount of individual giving to charity has also been affected by the economic downturn. And people are also likely to be asked for money by more and more groups as organizations seek to make up budget deficits with individual donations.

Blair points out that while that the number of holiday-season gifts the foundation is receiving is the same as last year, the average dollar amount is lower.

Appeals such as the Empty Stocking Fund, administered by The New Mexican, the Santa Fe Community Foundation, the Salvation Army and Presbyterian Medical Services, is doing as well as last year, Blair said.

The Empty Stocking Fund gives people an opportunity to respond to a personal story of someone in need. The stories are emotional and have the power to move people, Blair said. But the organizations that provide programmatic services to people year round don't always have that same appeal.

"We are hoping that people remember that those needs are still going to be around when the tinsel comes down," Blair said.

With a smaller amount of money to dole out, the McCune Foundation, which cut grants from $7.8 million in 2001 to $5.1 million in 2002, is focusing on basic needs. Director Lopez says that arts grants have taken the first hit, with most arts grants being cut in half. "We didn't cut them off, but we cut them down," he said. "In tough economic times, homeless and hungry - in my judgment - take priority over opera-goers."

Even so, groups that work with the hungry and homeless are having financial problems. Hooper, of the Food Depot, says that many national foundations have cut grants in half. The Depot relies on foundations for about $120,000 of its $400,000 budget. So even though many foundations are saying they can't take on new organizations, the Food Depot is stepping up its fund-raising efforts, hoping to score with yet untapped foundations that are concerned with hunger. "Unfortunately, what we have going for us is that we're serving a population that is extremely impoverished," Hooper said.

Groups that are more activist-oriented and work on policy, rather than social services, have a mixed reaction to the funding crisis. Sally Smith, a Silver City veteran of environmental battles against mining company Phelps Dodge, will return to her old role as a volunteer rather than paid activist. "A lot of us never really expected careers out of this," Smith said. "On the other hand, I feel that people ought to be paid decently for their work."

Greg Mello, director of the Los Alamos Study Group, believes that in his area of anti-nuclear activism, foundations have actually played a negative role. "The foundations didn't have a clear focus about what to do," Mello said. "Instead of providing leadership, they sprinkled a little money in a lot of places and hoped for a miracle."

In hearts-and-minds battles like his, Mello says people, not big foundations, are key. "I never thought money was a limiting factor. We've fought successful battles with very little money."

Other policy-oriented nonprofits are being herded into coalitions by foundations such as McCune. Coalitions don't save money, said director Owen Lopez, but they can be more effective than a handful of groups working separately on the same issue. The McCune Foundation played an active role in forming a coalition of groups working on the Rio Grande, after a California foundation threatened to pull its funding from Rio Grande issues two years ago, Lopez said. And when money is tight, it may be more important than ever for foundations to play an active role in organizing and leading nonprofits, he said.

Julia Bergen, director of an organization that provides visual-arts classes for underserved kids in Santa Fe, says she believes that if there is a silver lining to funding cuts, it will be that people in the community have to become more involved with organizations they value. Her organization, Fine Arts for Children and Teens, relies on

volunteers who work as studio assistants. "We're really counting on community support," Bergen said. "In a sense, I see this as an opportunity for people to really figure out what's important to them."

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Feds Detail Nuclear Breaches

By Adam Rankin Journal Staff Writer

'Several Years' Of Unfit Storage

The National Nuclear Security Administration released more details Friday on nuclear safety violations at Los Alamos National Laboratory concerning the improper storage of nuclear waste for "several years," resulting in a preliminary notice of violation issued Dec. 17.

The notice cited LANL for violations in four separate categories relating to the storage of transuranic radioactive waste in an unauthorized facility, PF-185, used as an interim storage facility within Technical Area 55, or TA-55.

LANL used the building from March 1996 until June 2001 as a staging area for radioactive waste before moving the waste to Area G, which is an approved storage facility. Radioactive wastes are stored at Area G before transportation to the Waste Isolation Pilot Plant near Carlsbad.

LANL has until Jan. 17 to provide NNSA with a written response to the violations, including reasons for the violations if admitted or, if denied, the basis for the denials.

Linton Brooks, acting administrator of the NNSA, wrote LANL director John Browne a letter accompanying the notice of violation saying he was "personally concerned about the seriousness of the circumstances surrounding this matter ... "

Violations cited in the notice include failure to do a documented safety analysis, failure to follow technical safety requirements, failure to gain approval from DOE to use PF-185 as a storage facility, failure to classify the site as a nuclear facility, failure to do hazard and accident analyses and failure to develop appropriate nuclear safety controls.

LANL management also was cited for not identifying a procedural problem with storing waste at the site for more than five years and for failing to correct the problems once management realized that storage at the facility was unauthorized.

"LANL failed to timely develop a root cause analysis of that condition, failed to investigate the extent of the condition that was found, and failed to determine the deficiencies in safety management controls and their causes that allowed this condition to exist for five years before identification," according to the citation.

Brooks wrote that his concerns include the "safety significance of operating a facility for over five years with an inventory of nuclear material but without an analysis to determine the appropriate safety management controls for protection of the workers and public.

"Although there were no immediate radiological consequences, it is fortuitous that no unanticipated events occurred that would have caused unanalyzed and significant exposures to workers and the public," he wrote.

Greg Mello, head of the LANL watchdog Los Alamos Study Group, said the violation shows that lab managers essentially lied to the Department of Energy in May 2000 during the Cerro Grande Fire when they told DOE officials that all nuclear materials were in secure bunkers.

Lab officials could not be reached for comment Friday, but Tim George, leader of LANL's nuclear materials technology division, said on Monday that as soon as the improper storage was discovered in June 2001, it was reported to the DOE/NNSA and LANL "took action to move the drums to an approved location."