

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.

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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 is 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, prelimi-

nary 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.

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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



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Hunt for Sniper Appears Over Rifle Found With Suspects Linked to 11 Attacks

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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 pluto-

nium 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 nar-

row 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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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 of four other possible sites, including Carlsbad's Waste Isolation Pilot Plant.

Other possible locations include the Savannah 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

A 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
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Monitor Assistant Editor

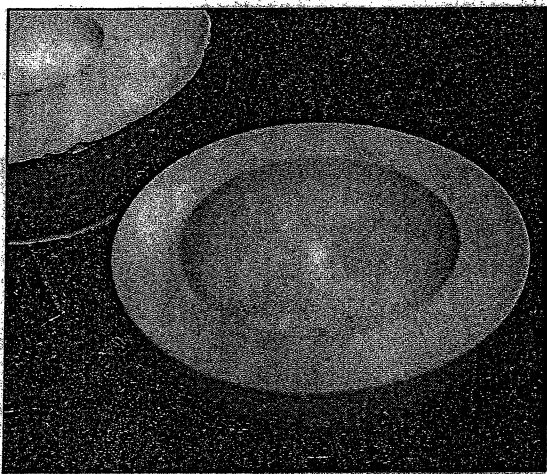
Sometime in the future, about 15 years from now, the Department of Energy anticipates the possibility of needing a place to make at least 125 and perhaps as many as 400 plutonium pits per year.

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



JIM O'DONNELL/Monitor

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

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

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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 anti-nuclear 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.

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• 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-weapon 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.